

**Supply and Demand: A Comparative Analysis of
Journalistic and Consumer News Selections on
nzherald.co.nz**

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Journalistic and Consumer News Selections on
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Abstract

Taking as its focus the website of the New Zealand Herald (nzherald.co.nz), this study examines the online news selections of journalists and consumers, explores the thematic nature of these selections and looks at the relationship between the two groups, as well as their news selections, in the online context. Its purpose is to explore the thematic preferences of both journalists and consumers while also comparing these preferences in order to establish the existence or non-existence of a 'news gap' in New Zealand – that is, a significant gap between the thematic preferences of journalists and consumers. Its purpose is also to explore the relationship between these two groups in the online context, examining how they interact and how such interactions might shape news selection decisions. Further, this study considers the role of time and how news selections might shift over time.

A comparative academic study of the news selections or preferences of journalists and consumers has not been conducted before in New Zealand. A combination of content and data analysis methodologies were employed in this study, which is rooted in a quantitative methodological approach. This study also employs theory from the field of political economy to inform its discussion of influences on news selection decisions. Thematic content analysis was used to explore the selection and placement of online news stories on the nzherald.co.nz homepage by Herald journalists, while data and thematic content analysis were used to examine the most popular stories clicked on by consumers on nzherald.co.nz.

An examination of these news selections revealed a focus on soft and non-public affairs news among both journalists and consumers. In this regard, there was only a narrow gap discovered between the preferences of each group – selections were largely the same. Particular emphasis was placed on sports news by both groups, with stories from this topic making up the largest proportion of both journalistic and consumer news selections. News about politics and public affairs received only moderate attention from both groups.

In comparing stories ranked highest on the nzherald.co.nz homepage with the stories most clicked-on by consumers, it was discovered there was a high degree of similarity between the specific news selections of each group. Story-for-story, 62.9% of the news selections of journalists and consumers paired up over the sample period, indicating a high level of agreement between the two groups. A correlation between the journalistic homepage rankings and consumer clicks was also discovered, pointing quantitatively to a relationship between the behaviours of the two groups. An examination of the news selections of journalists and consumers also showed that the thematic nature of selections shifted over time. It was found that the news selections of both groups became softer over the course of a day, with the small gap between selections narrowing over time.

The findings of this research have implications for gatekeeping and agenda-setting theory. Questions are raised regarding the quality of news and information circulating online. Noted also are issues surrounding journalistic and consumer behaviour and the impacts certain behaviours might have on the functioning of a robust, informed democracy in New Zealand.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

A handwritten signature in black ink, consisting of stylized, cursive letters that appear to be 'CR' followed by a flourish.

Craig Robertson

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Preface

On May 29, 2015, the final episode of the TV3 show Campbell Live aired. The show was considered by many to be a cornerstone of New Zealand's fourth estate – a programme which asked viewers to question their assumptions and one which held the powerful to account (Ikram, 2015). The finale was preceded by widespread public outcry, protests in the street and dismay from media commentators who argued the axing undermined New Zealand's fourth estate and was a potential "tragedy for democracy" (Thompson, 2015, para. 27).

These events – particularly the public protests – and the circumstances surrounding the show's axing raised several questions regarding the behaviour of consumers and journalists in New Zealand.

At the outset, the decision to cancel Campbell Live appeared in many regards to be an economic one (Edwards, 2015). The show's ratings in early 2015 were languishing following sharp audience declines and it struggled to compete with rival show Seven Sharp (Fyers, 2015) – a comparatively soft news-focused, entertainment-driven affair. Ratings for Campbell Live only picked up when the stakes were raised and the public faced losing a beloved television presenter (Daly, 2015). Protesters in the street called for the show to be kept on the air and citizens decried the impact of commercialism on journalism (Thompson, 2015; Easton, 2015). Before the public knew about the show's cancellation, however, enthusiasm had seemed lacking.

This fact prompted a number of important questions about the public and their news consumption behaviour: Do New Zealanders really care about public affairs journalism? And if not, what do they have a preference for? What news stories do New Zealanders actually consume? After all, the Campbell Live saga suggested there was a disconnect between what the public said they wanted (public affairs journalism) and what they actually consumed (soft news). As many people as there were protesting in the street, this could not detract from the reality that Campbell Live struggled to compete with Seven Sharp.

At the same time, issues regarding journalistic motivations and behaviour were raised by the Campbell Live saga. The apparent role that ratings and advertising played in the show's cancellation pointed to the impact of economics – and commercialism – on news. This led to several questions: What factors influence journalistic decision-making? Does economics play a key role? If so, does commercialism prompt journalists to provide consumers with a diet of soft news?

These questions regarding consumer and journalistic behaviour were taken and applied to news online. Rare access to a large amount of online data made the decision to analyse the online news selections of consumers and journalists in this context a practical one. The number of

clicks on individual news stories could be considered and the thematic nature of consumers' news selections assessed. Journalistic news selections could also be assessed alongside those of consumers, making for an informative comparison.

This research is focused on that comparison. Its purpose is to describe the online news preferences of journalists and consumers in New Zealand, explore the relationship between these two groups and to offer explanations for why news preferences might look the way they are. In this regard, the role of economics will be considered, alongside other political-economic factors.

Indeed, context is important in shaping the news selections decisions of journalists and consumers in New Zealand. It is necessary to consider when asking and answering questions about news content and the stories journalists and consumers value. In the words of John Campbell:

We have to have a discussion about this as a country. We have to say, 'Do we value journalism?'...There's actually a whole lot of pressure on a diminishing number of reporters to do two things simultaneously: One, tell stories that matter and two, clickbait or viewers. They are not necessarily the same thing. It's a tough, tough time to be a journalist. (Cited in Walters & McAllen, 2015).

Chapter 1: Introduction

1.1 Study outline

On any given day, journalists make decisions about what news stories to produce and disseminate online. These stories, whether they are about sports teams, celebrities, or politicians, are part of journalists' news supply. At the same time, consumers make decisions about which news stories to read online. The thematic nature of these news selections, again whether they are stories about what John Key or Kim Kardashian said, constitute consumers' news demand.

This supply and demand chain of news is what this study looks at. Specifically, this study is a comparative content analysis of the online news selections of both groups. It is focussed on assessing the types of stories – hard news or soft news; public affairs or non-public affairs – that journalists select and post online for people to read. It is also about the types of stories online consumers choose to click on.

Establishing what these news selections look like is important in helping answer fundamental questions about what the news preferences of each group actually are. Describing news preferences is necessary because, without this foundational information, questions about journalistic quality and the engagement of citizens with public affairs issues cannot be properly addressed. It cannot be claimed that consumers want or need more public affairs news, for example, without first looking at the news they *actually* read.

This study, then, seeks to analyse and describe the news selections of journalists and consumers. Further, it seeks to compare these news selections to establish the existence or non-existence of a 'news gap' – that is, a significant difference between journalists and consumers in terms of the supply and demand of hard news and public affairs.

In making this assessment, the website of the New Zealand Herald will be taken as a case study. The Herald website, nzherald.co.nz, was chosen as a case study because of the author's unique access to data from the site and knowledge of Herald practices (i.e. use of tracking technology by journalists in the newsroom). It was also chosen because of the site's prominence, size, reach and popularity with New Zealand consumers. It is a dominant player in the New Zealand news media market.

The news stories this study will consider are those given the most prominence by journalists and the most attention by consumers. First, it looks at the news stories selected by journalists and placed at the top of the New Zealand Herald homepage. These top-ranked stories are a suitable representation of the content considered most newsworthy by journalists at any given time – akin to the stories placed on the front page of a newspaper or those covered first on the

nightly TV news bulletin. This approach is based on those of similar studies (see Curtain, Dougall, & Mersey, 2007; Boczkowski, Mitchelstein, & Walter, 2011).

Second, this study looks at the news stories viewed most often by consumers. These stories are taken as being the most newsworthy for consumers, in line with the assumptions of previous studies (Curtain, Dougall, & Mersey, 2007; Boczkowski, Mitchelstein, & Walter, 2011). This assessment of story popularity is based on the number of pageviews for individual stories. Again, this approach is rooted in that of similar studies (see Tenenboim & Cohen, 2015; Tewksbury, 2003).

This study also considers the extent to which the news selections of journalists and consumers privilege particular topics (such as crime, entertainment, politics) and considers how oriented each group is towards news about public affairs. This study will also take time into consideration, analysing how the news selections of journalists and consumers might shift over the course of a day. Such a comparison of news selections, which follows overseas approaches, has not been done in New Zealand.

Underpinning this analysis of news selections is the theorised relationship between the news selections of journalists and consumers. The decisions by each group have a potential influence on the other, with a feedback loop between the two created by online technology (Tewksbury & Rittenberg, 2015). Generally, as academics argue, what journalists choose to display prominently online affects what consumers read and what consumers read – communicated to journalists via web tracking tools – affects what decisions journalists make regarding news content (Anderson, 2011a; Tewksbury & Rittenberg, 2015).

This potential relationship between the news selections of journalists and consumers will be explored because of the role it might play in shaping news selections. Indeed, in this regard, numerous factors can be considered when looking at the news selection decisions made by journalists and consumers. In order to focus the discussion of potential influences, however, a political economy framework will be applied. In this regard, emphasis will be placed on political-economic explanations for findings. Political economy is a field that is “interested in the interplay between economic organisation and political, social and cultural life” (Golding & Murdock, 1991, p. 18). Generally, this theoretical perspective deals with the relationship between economics, moral philosophy and political/social power structures (Wasko, Murdock & Sousa, 2011), while “analysing the implications of markets for patterns of cultural distribution, and of the availability of differing forms and structures of meaning” (Golding & Murdock, 1997, p. xvi). It seeks to “trace the impact of economic dynamics on the range and diversity of public cultural expression, and its availability to different social groups” (Golding & Murdock, 1991, p. 18).

In the context of this research, a political economy approach will help in considering the interaction between journalists and consumers in New Zealand’s free market system and the resulting impact such an interaction might have on the news. Broadly, then, the approach will be

a theoretical framework for explaining the implications certain factors might have for the distribution and reception of the Herald's news content. Emphasis will be placed on advertising, technology and commercialism as influences on journalistic news selections. With regard to consumer news selections, emphasis will be placed on how technology and freedom of choice shape them.

Following on from this analysis of news selections and the potential relationship between journalists and consumers, suggestions will be made about what the implications might be for journalism and online news content, as well as for consumer engagement with public affairs issues.

Overall, this research is focussed on addressing three research questions:

1. What do the news selections of journalists and consumers look like in terms of topic selection and the ranking/popularity of stories?
2. How do the news selections of journalists and consumers (in these regards) compare?
3. How do the news selections of journalists and consumers relate?

1.2 Why study news selections?

Before exploring the literature on news selections and the potential influences journalists and consumers have on one another, it is necessary to consider the questions: *Why study news selections? And why do so in New Zealand?*

For scholars, the news selections of consumers provide an important gauge of how engaged people are with political and societal affairs. Hamilton (2004) and Prior (2005), for example, have identified links between consumer interest in public affairs news (that content dealing with politics, government, international affairs, et cetera) and political action. People who read public affairs news are more likely to vote, the authors note. Thus, finding out what kinds of news stories consumers are reading can provide insight into the health of the body politic and indicate what information is circulating most through the public sphere.

A study of this kind – comparing the news selections of journalists and consumers – has not been done in New Zealand, meaning this analysis will add to the literature and expand knowledge about news selections in this country. Scholars have analysed the news stories that journalists produce, but studies have lacked comparisons with consumer selections. In fact, few comparative analyses of online news selections have been performed anywhere, which limits the amount of relevant literature.

Comparing news selections is important because establishing what news people are consuming creates a point of reference. Many claims are made of journalists failing the public by not

providing enough important public affairs news – a common complaint in New Zealand (see Cook, 2002; Atkinson 1994a; Atkinson, 1994b; Dahlberg, 2005; McGregor, 2002b). These academic complaints are often rooted in the belief that journalists have an important role in society to inform and educate the public (Singer, 2003; McManus, 1994).

Thoughts about the role of journalism (and complaints made about journalists) may have to be reconsidered, however, if it is found, for example, that consumers are largely uninterested in public affairs news (see Beam, 2003) or if consumers find little use for it (see Graber, 2004). Indeed, it may be that consumers are better served through the provision of news content that better matches their interests. And it could be that journalists are learning to do just this – for practical and economic reasons. After all, in recent years, an ongoing shift from a one-to-many model of journalism to a many-to-many model has seen some gatekeeping and agenda setting power move away from journalists to consumers (Boczkowski & Mitchelstein, 2013; Hague & Harrop, 2010; Hirst, Harrison, & Mazepa, 2014). No longer is journalism top-down, with consumers somewhat limited in their content options by medium constraints. Instead it is now, in many regards, considered bottom-up. Consumers can access news and information wherever and whenever they want. The problem online is not getting your content to audiences, but audiences to your content, as Van Couvering (2011) observes. Audience fragmentation caused by an abundance of choice online puts pressure on news outlets to more actively seek out audiences and cater to their interests in order to hold their attention (Tewksbury & Rittenberg, 2015; Hague & Harrop, 2010).

In this scenario, then, journalists would not be the only ones to blame for the ‘tabloidisation’ or softening of news. A shift away from hard political news could be as a result of consumers expressing a dislike for this type of news content and journalists catering instead to consumer preferences for apolitical stories and ‘news you can use’ as a way of staying relevant and serving their interests and needs. Instead of journalists ‘failing’ the public, it could be that they are simply providing the populace with the news they are asking for – or news which consumers find important to their everyday lives.

Indeed, far from journalists failing their duty to the public, some studies have found the informational wants of consumers may be more than satisfied by the current supply of public affairs news (Graber, 2004; Boczkowski, Mitchelstein & Walter, 2012; Boczkowski, Mitchelstein & Walter, 2011; Boczkowski & Peer, 2011). Graber (2004) argues that, in the United States, “the quantity and quality of news that various media venues supply collectively is adequate for citizenship needs” and notes that only 10% of the public is estimated to be truly attentive to politics (p. 563). Beam (2003) meanwhile suggests that the definition of public affairs news may have to be broadened to include news stories which are more relevant to their everyday lives of consumers. This study will go some way to assessing how much consumers are interested in public affairs stories.

Further, establishing what consumers are reading online can provide some insight into the extent to which they might be active (or inactive) in pursuing their own interests. The online medium gives consumers have greater freedom of choice regarding what they read; they are no longer constrained by the linear nature of television news broadcasts and the limited content in newspapers (Boczkowski & Mitchelstein, 2013). In short, consumers can now ignore everything they do not want to see because the internet allows them to access a vast amount of information in a myriad of different ways (Hague & Harrop, 2010). This freedom of choice is said to facilitate political news avoidance and encourage people to pursue their own soft news interests (Stroud, 2011; Prior, 2005; Boczkowski & Mitchelstein, 2013). Establishing how much political or public affairs news stories consumers clicking on online may aid in assessing the extent to which consumers are expressing agency.

In reviewing the news selections of consumers, several things may be discovered. On the one hand, greater consumer agency could form the basis of a consumer news agenda (Vu, 2014), with consumers following their own news schedule (Sunstein, 2007), leading to the selection of entirely different stories to those considered most newsworthy by journalists (Boczkowski & Mitchelstein, 2013). On the other hand, consumer selections could also be shaped by importance indicators, such as the presence of a news story at the top of the nzherald.co.nz homepage, with consumers following the cues of journalists (Tewksbury & Rittenberg, 2015). This study will touch on these issues, perhaps indicating how much consumers pursue their own interests or pay attention to journalistic cues.

Meanwhile, studying the news selections of journalists allows us to assess the extent to which journalism is providing a public service which may be essential to the functioning of democracy (Singer, 2003). A sense of social responsibility and a desire to act as a public watchdog has underpinned much journalistic work (Mersey, 2010; Hannis, Pajo, Hollings, & Lealand, 2014). An analysis of news selections thus provides a platform from which journalists can be judged. *Are journalists providing the public with important information they need to function as effective members of a democracy?* Such a question may be answered by analysing the news selections of journalists.

Analysing journalistic selections may also provide some insight into the extent to which journalism might be impacted by economic factors. The commercialisation of journalism – and the resulting softening of the news agenda – has been a common theme in academic literature (see Atkinson, 1994b; Cook, 2002, Sessions Stepp, 1999; Pew Research Center, 1998). Economic pressures on news have arguably been exacerbated in recent years as a result of the influence of the internet (Hague & Harrop, 2010) and the trend towards commercially-focused news may have intensified (Myllylahti, 2013). Reviewing the nature of journalistic news selections in New Zealand, in this regard, may allow for some conclusions to be drawn about whether this might be the case.

Furthermore, by comparing the news selections of journalists with consumers, it may be possible to assess the extent to which consumers are influencing what journalists do. Indeed, with the introduction of web tracking tools, it is now possible for online journalists to see in real time what consumers are clicking on and to make decisions accordingly (MacGregor, 2007; Anderson, 2011a; Schlesinger & Doyle, 2015). This access to real-time information has potential consequences for journalistic gatekeeping and news judgment, especially in the context of news organisations looking to increase audience numbers and advertising revenue (Tandoc, 2014; Vu, 2014; Anderson, 2011a; Vujnovic, 2011). In sum, market pressures and the availability of audience-tracking technology may be reshaping traditional news values, making journalism more audience-focused (Tandoc, 2014; Vu, 2014). This potentially means journalistic news selections becoming softer and non-public affairs oriented (Boczkowski & Mitchelstein, 2013).

Indeed, today, there is a close relationship between the news selections of journalists and consumers that must be considered. The activities of these two groups are becoming more interrelated as internet technologies facilitate interactions between journalists and the public (Bruns, 2005). The interests of each group are an important factor in this relationship, with the news selection decisions of journalists and consumers being part of a feedback loop that, scholars argue, shapes the flow of news and information online (Tewksbury & Rittenberg, 2015; Vu, 2014; Tandoc, 2014). The effect is bi-directional, though there is some tentative evidence consumers may be having a greater impact on journalists – at least in terms of news placement on website homepages (Lee, Lewis & Powers, 2014)

In any regard, what this study seeks to establish is whether there is a relationship between the online news selections of journalists and consumers in New Zealand by using the New Zealand Herald as a case study. After analysing this relationship, this study looks to consider specifically what the news selections of journalists and consumers on nzherald.co.nz look like and how they compare thematically. The role of time in news selections will also be considered, with the potentiality for shifts in news selections over the course of a day to be considered. In this regard, it may be that news selections become softer over time. There is also the possibility for no change to occur over time. Whatever the outcome, this research will consider the role, if any, time plays.

Chapter 2: Literature Review

2.1 A note on terminology

Throughout this research report, reference will be made to the concepts of hard and soft news as well as public and non-public affairs news. Reference will also be made to particular news topics, which will be specifically defined in a later chapter. Such topics include sports, entertainment, weather and crime.

At the outset, it must be noted that there are no widely agreed-upon definitions for 'soft news' and 'hard news' in academic circles, with Reinemann, Stanyer, Scherr, and Legnante (2011) identifying this as a problem. The authors point to a number of studies which have considered hard and soft news, but note that, more often than not, these studies disagree about what these terms mean. Hard and soft news stories have been variously defined with reference to story topic, story content, story focus, news style and even news reception (Reinemann et al, 2011). Hamilton (2004), for example, defines hard news as news related to government and politics, while soft news is non-public affairs content – human interest stories and entertainment news. Tewksbury and Rittenberg (2015), on the other hand, note that while hard news is often seen as news that covers important topics such as public affairs and international issues, there can be problems in defining soft news:

Soft news is sometimes defined simply as “not hard news,” but our definition of soft news is a news format that – regardless of topic – presents stories with an emphasis on individuals (also called “human interest”) and sensationalism over national interests, public policy, or information quality...This definition does not always yield a clear distinction between hard and soft news. (pp. 77-78)

To overcome such definitional problems, this research will adopt broad definitions of hard and soft news that borrow from Reinemann et al. (2011). The authors - in a paper titled 'Hard and soft news: A review of concepts, operationalizations and key findings' - put forward a definition of hard and soft news that draws together theory from past research. It is an attempt at giving the concepts coherence and consistency. Reinemann et al. (2011) point to hard news stories as being those which have “political relevance”, “public or social relevance” and which focus on “the societal consequences of events” (p. 233). Soft news stories, meanwhile, are those which stress “personal or private aspects and consequences” and which are “not politically relevant” (p. 233).

Thus, 'hard news' in this research will refer to those news stories which have political or social relevance and which impact on the wider body politic. 'Soft news' in this research will refer to those stories which do not have explicit political or social relevance and which have no impact on the wider body politic. Broadly, news stories which fall into the 'hard news' category in this

study will be from topics including government, politics, world affairs, business, economics, science and social issues. News stories which fall into the 'soft news' category will be from topics including sports, entertainment, crime, weather, lifestyle, opinion, accidents and odd news.

At the same time, discussions of public affairs and non-public affairs news stories will be part of this research. These two concepts have similar definitions to those ascribed to hard and soft news, but are more specifically focused on the degree of political relevance. Public affairs news is defined by Boczkowski, Mitchelstein, and Walter (2012) as news about such issues local and international politics, the activities of elected officials, the functioning of the economy and business. These stories have wider political, social or economic implications for their particular localities. Non-public affairs news stories are those about sports, crime, entertainment, lifestyle and weather which do not have wider political, economic or social implications. These terms will be specifically defined in the methodology section. For the purpose of the literature review, Boczkowski, Mitchelstein, and Walter's (2012) definitions are the most relevant.

2.2 Supply: The news selections of journalists

2.2.1 What shapes the (online) news selections of journalists?

An overview of the potential political-economic influences on the news selections of journalists - both in traditional media and online - is necessary to establish what may be behind the findings, if any, of this research. They are also useful in analysing the findings of other news selection studies. Further, these potential influences will serve to inform the hypotheses of this study. Both traditional and online media influences will be considered because some influences on newspaper and television news content, for example, translate to the online world. Specific influences on online news content will also be considered.

In general, the news selections of journalists are potentially influenced by numerous factors. Such factors can include professional norms, beliefs and expectations (Gans, 1979; Singer, 2003), routines, values and organisational factors (Shoemaker & Reese, 2014; Bell, 1991), as well as economic and consumer-related factors (Hamilton, 2004). Broadly, journalists, in doing their work, try to bring to public attention that news which they deem 'newsworthy' (Shoemaker & Vos, 2009). Decisions about what news stories to disseminate to the public are made as a result of a complex and layered gatekeeping process that has traditionally been the domain of journalists (Shoemaker & Vos, 2009; Gans, 1979), but which has been challenged in recent years (Vu, 2014; Tandoc, 2014).

This study focuses on political-economic factors, however. In this regard, the specific influences on journalists and their news selection decisions to be considered are:

1. The economic pressures on journalists and the influence of advertisers
2. Audience interests and behaviour (communicated to journalists via the internet)

Each potential influence on news content will be considered in turn.

Economic pressures/Influence of advertisers

Economic Pressures

The impact of economics on news content is borne out of the fact that news, generally, is a commodity that is either sold or freely distributed to consumers with the purpose of generating financial returns. Indeed, as Smythe (1977; 1981) argues, news is a product which is designed to lure in consumers, with money being made by news outlets either by charging consumers to obtain it or by news outlets selling audience attention advertisers. Especially in the online context, since news is often given away for free, making money means audiences must be captured, commodified and sold to advertisers (Biltereyst & Meers, 2011). It is as a result this process of audience appeal, news commodification and audience commodification that news content is impacted.

This is because, when news is viewed in economic terms, attention is turned away from the public service value of news (Atkinson, 1994b; Hirsch & Thompson, 1994). Emphasis is instead placed on the potential financial returns that producing and distributing news might generate. In this conception, news is a commodity, rather than a public good in its own right which has value in terms of the information it conveys. And when news is a commodity, it begins to matter little what its quality or specific content is, so long as it attracts audiences which can be sold (Biltereyst & Meers, 2011). This privileging of economic value over informational value arguably leads to a softening of the news agenda (Atkinson, 1994b).

It must be noted that the influence of economics on news content is not new (see Picard, 2004), but the 21st century has arguably seen a compounding of these pressures as news organisations confront a changing media landscape (Hague & Harrop, 2010). A combination of declining audiences and declining/shifting advertising revenue as a result of the internet has seen the news media looking for new ways to appeal to and retain audiences in order to keep generating profits (Schlesinger & Doyle, 2015; Boczkowski, 2004). These pressures have had their own impact on news content, arguably exacerbating issues related to the softening of the news agenda.

Pre-internet, Boczkowski and Mitchelstein (2013) note, media outlets had the luxury of not having to worry about audiences or economics. As the authors point out:

Through most of the twentieth century, the strong market position of the leading print and broadcast news organizations enabled them to tell the public what they thought the public needed to know, despite their perception that the public preferred something

else...The public had only a limited ability to ignore other topics, even if it preferred to do so. For traditional media organizations, this contributed to the existence of a tolerable gap between the supply of and the demand for news. It helped those organizations to fulfil a public-service mission that was consistent with the prevalent journalistic ideology while enjoying big profits. The recent evolution of news has changed the picture dramatically. (p. 3).

Both profits and audience numbers were high through the middle of the 20th century. Many newspapers faced little competition and held near monopolies in their respective localities on classified advertising (Picard, 2004). High viewership and circulation numbers therefore translated into healthy advertising revenue. But through the 1980s and 1990s, as the influence of television grew, the profits and circulation figures of newspapers took ever-larger hits (Boczkowski & Peer, 2011; Beam, 2002; Beam, 2003; Hague & Harrop, 2010). With the birth of the internet and online news came another blow to newspapers and to television also (Hague & Harrop, 2010).

A longitudinal study by the Pew Research Center (2012a) shows that the percentage of Americans getting their news from television, newspapers and radio has been in steady decline since the 1990s. The number of people getting news online has risen sharply and is increasing, but these online audience increases have not offset the fall in audience numbers in other mediums, some of which have been dramatic (Maier, 2010, p. 7; Pew Research Center, 2012a). Online ad spending is also on the increase, but many online news sites still struggle to make money and they continue to grapple with the problem of how to make online news operations financially viable in the long term (Hamilton, 2004; Schlesinger & Doyle, 2015). Indeed, as Mersey (2010) notes, news outlets make far less money from online ads compared to print ads and some newspapers have had to close because of profit losses resulting from declines in circulation and shifts in ad spending.

Overall, the product of recent digital developments "is a more splintered audience, with advertising revenue divided between more channels" (Hague & Harrop, 2010, p. 143). Total audience numbers are down for many news outlets, as well as profits. Generally, as a result of these contemporary trends, many media outlets have found themselves facing tough times. These trends have been witnessed across the world, with New Zealand included (Ahmed, 2013). The specific context of the Herald will be considered in a later section.

Online news outlets have become market oriented as a result of such pressures, seeking out ever-larger audiences to draw in advertisers (Vujnovic, 2011). Declines in advertising revenue across mediums have impacted on corporate profits and, in turn, on news quality, with journalists forced to produce more news with fewer personnel and resources (Schlesinger & Doyle, 2015; Maier & Tucker, 2012). Additionally, in order to attract audiences and advertising revenue, changes to journalistic practice have been made. Content is pushed to become softer and more consumer-focused (Tandoc, 2014).

Added to these pressures is the general impact of financialised ownership of news outlets. In the context of a free market system, economic influences on news are often exacerbated because news organisations are increasingly being bought up by larger parent companies or shareholders and come under increased pressure to return profits and dividends (Hope & Myllylahti, 2013; Hirsch & Thompson, 1994). As a result of the financialisation and commercial orientation of news media ownership, profit motives are increasingly driving journalistic decision-making (Hope & Myllylahti, 2013; Tewksbury & Rittenberg, 2015). Indeed, in New Zealand in particular, economic pressures and financialisation have seen media companies moving to act in the best interests of shareholders (Hope & Myllylahti, 2013). News content diversity and coverage of important issues have arguably suffered as a result (Hope & Myllylahti, 2013; Rosenberg, 2008). Generally, in New Zealand, there has arguably been increasing emphasis placed on the needs of owners, operators and advertisers rather than on the needs of democratic citizens, with profit often put before news quality (Atkinson, 1994b; Cook, 2002). The marketable aspects of news have been focused on, leading to news that is softer and more trivial (Atkinson, 1994b; Cook, 2002; Hannis et al, 2014). Overall, in seeking out profits and audiences, news is adversely affected, with content becoming soft and depoliticised – designed to appeal to the largest possible audience (Atkinson, 1994a; 1994b).

Elsewhere, the emphasis on profit-making has led to decreased investment in news operations and arguably a decline in public service journalism (Hirsch & Thompson, 1994, p. 146). Commercialised news outlets are incentivised to promote, or even privilege, content that is popular, regardless of that content's usefulness. In some instances, as Hirsch and Thompson (1994) and Hope and Myllylahti (2013) point out, ownership of news outlets by investors with no particular interest or experience with the media can cause problems, with cost-cutting and revenue-boosting measures implemented to increase profits for shareholders impacting negatively on news depth, quality and value.

Picard (2004), in fact, summarises the present context well:

Many large newspaper companies have become increasingly dependent upon the stock market and financial institutions for capital, forcing them to seek steadily growing revenues, stable profits and growth in share prices. This has led many in and outside the industry to charge that traditional values in news are being sacrificed for increasingly commercially viable content and content that will increase the number of advertisers. (p. 57)

Indeed, advertisers are important here. They are another factor driving changes in news content, making news more consumer-centred (Boczkowski, 2004).

The process of advertiser influence on news outlets and news content is relatively straightforward: News outlets, to a large extent, rely on advertising money to generate profits. This creates a relationship between news outlets and advertisers. These advertisers want to reach consumers (often from particular demographics), to sell their products (Turow, 2005). News organisations, in order to attract advertising money, must therefore appeal to the consumers that advertisers want to reach. This can either be a large group of people or a smaller, more demographically-specific group of people (Turow, 2005). In any regard, appealing to consumers – for the purpose of capturing them and selling their attention to advertisers (Smythe, 1977; Jhally & Livant, 1986) – involves, in some cases, the shaping of news content to fit with consumer preferences (Hamilton, 2004). At the same time, there is the incentive to cater to the news interests of advertisers, who want to have ads appear alongside appropriate content (Herman & Chomsky, 2002).

News organisations which are reliant on advertising, therefore, have a very particular set of political-economic influences on them (Smythe, 1977; 1981). In this regard, again, news organisations are increasingly incentivised to make news content more consumer-centred because this means greater audience appeal and retention (Tewksbury & Rittenberg, 2015). Consumer-centred news provides a path to more effective and profitable commodification of audiences and the sale of these audiences to advertisers (Turow, 2005). This process of creating and selling audiences, described by Smythe (1977; 1981) and expanded on by Jhally and Livant (1986), is the cornerstone of the mass media business model and centres on shaping content for the specific purpose of linking the interests of consumers, advertisers and media organisations together.

Applying this audience commodification model to the present day, the push for corporate profits – in the context of financial stress, as mentioned above – increases the relevance of advertisers and consumer preferences to news organisations. News organisations under financial pressure are incentivised to employ this model in an intensive fashion, seeking ever-larger audiences to commodify and sell in order to arrest revenue declines. The resulting impact, as McManus (1994) explains, is the production of news that is broad in appeal but lacking in depth:

For both newspapers and television, having advertising rather than consumers as the primary source of income means that the way to increase profits is to produce a product that has a minimal threshold appeal to the maximum number of demographically desirable consumers in the signal or circulation area...The economics of newspapers and television favour breadth of appeal over depth. (p. 61).

In this context, advertisers can also influence the specific type of news content that journalists produce. Advertisers, in many cases, want to reach malleable young people with disposable income or females who make household purchasing decisions (Hamilton, 2004; Atkinson,

1994a; Hirsch & Thompson, 1994). Younger and female consumers are more interested in crime, health, sports, science/technology and entertainment news than other topics (Hamilton, 2004). News outlets looking to generate revenue are, therefore, incentivised to cater to these interests, aligning news supply with advertiser and consumer preferences. In fact, Hamilton (2004) notes that the more interest key demographics show in a topic or issue, the more coverage there will be of that topic or issue in the news – an example of the influence of demographics and advertisers.

Overall, advertisers are far more willing to pay more to have ads displayed next to soft news content and consumer information (Hamilton, 2004). Advertisers tend to prefer appearing alongside content that appeals to the people they are interested in reaching and which puts those people in a 'buying mood' (Herman & Chomsky, 2002). "Advertisers will want, more generally, to avoid programs with serious complexities and disturbing controversies that interfere with the 'buying mood'," Herman and Chomsky note (2002, p. 17). Sponsors will therefore avoid supporting news content that criticises corporate activities, exposes environmental degradation, and which challenges the military-industrial complex among other topics (Herman & Chomsky, 2002). News is therefore pushed to become entertainment and these 'entertainment values' diminish the seriousness and informational quality of news (Atkinson, 1994b, p. 48).

When it comes to creating audiences for advertisers to buy, news organisations generally have two options. They can, as noted, either seek out a large audience and profit off that audience's sheer size or instead seek out a smaller niche audience (Turow, 2005). Commercial logic has typically seen mainstream commercial news organisations favour large audiences because these make money (Turow, 2005; Hamilton, 2004). Nevertheless, if a small group of people is likely to spend a large amount of money on advertised products, then specific marketers will want to reach those people (Turow, 2005). But, in most cases, marketers are generally willing to pay more to reach a sizeable group of people, rather than just a few individuals (Hamilton, 2004).

This focus on large audiences means focus is placed on attracting 'marginal' news consumers - those consumers who aren't regular readers of newspapers or viewers of the nightly news - as a way of expanding out from the core of reliable, regular news consumers and hence increase the overall audience size (Hamilton, 2004; Atkinson, 1994a). What this entails, however, is a shift in focus from the interests and needs of core news consumers to the preferences of those consumers not typically attracted to news (Atkinson, 1994a). Regular news consumers, Hamilton (2004) notes, are more interested in hard news and politics, but occasional news consumers value sports and entertainment more highly. A focus on the company's bottom line, therefore, drives news production towards the dissemination of increased amounts of soft news content to appeal to these marginal consumers (Hamilton, 2004). Indeed, such content is cheaper to produce and more likely to please non-journalist stakeholders, whose influence appears to be growing (Hirsch & Thompson, 1994).

Overall, in the online context, the potential product of commercial pressures – and the need to attract advertising money – is more populist, down-market news websites providing more soft news content to appeal to a younger online audience. In this regard, Graybeal (2011) has indeed found that news sites are placing a large emphasis on reaching younger readers and Schlesinger and Doyle (2015) have found outlets paying “tremendous attention” to Facebook and Twitter trends. Further to this, as will be seen in the following section, journalists are also paying increasing attention to audience interests overall, hoping to maximise audience numbers by paying close attention to what stories are being clicked on (MacGregor, 2007; Tandoc, 2014; Anderson, 2011).

Generally, soft news is likely to be privileged online because commercial concerns have arguably begun to outweigh concerns about the role of journalism and the quality of news. Bluntly, Turow (2005) argues that: “Commercial imperatives rarely encourage media firms to urge their audiences to be engaged producers of a civil society or to expect news and entertainment to contribute towards that goal” p. 104). Hirsch and Thompson (1994) meanwhile observe that “performance that is measured more in terms of economic than editorial accomplishments undermines newspaper executives’ autonomy to pursue nonfinancial goals” (p. 150).

Consumer interests and behaviour

The news selections of journalists are also being influenced by increased exposure to consumer interests. More information than ever is being provided to journalists via technology (such as online tools that track reader clicks) and this is having an impact on journalistic practice as well as journalistic decision-making (MacGregor, 2007; Anderson, 2011a; Karlsson & Clerwall, 2013; Schlesinger & Doyle, 2015). News is, as a result, becoming more audience-centred (Vu, 2014; Tandoc, 2014)

Pre-internet, feedback from consumers was limited to letters to the editor, ratings reports, surveys and expensive audience research (Boczkowski & Mitchelstein, 2013; Shoemaker & Reese, 2014; Gans, 1979). Journalists largely rejected this feedback because they saw it as a challenge to their professional roles or because it was seen as being unhelpful (Gans, 1979). Further, much of the research conducted measured consumer preferences in the aggregate – how many people watched a television news broadcast or how many people bought a newspaper – and was therefore not entirely useful for making day-to-day reporting decisions (Boczkowski & Mitchelstein, 2013).

New technology, however, means online journalists can track consumer behaviour in real time, allowing them to make decisions accordingly (MacGregor, 2007; Anderson, 2011a; Boczkowski, 2010a). Boczkowski (2010a) records the types of information journalists now have access to:

These technologies yield information that is disaggregated at the story level. They show the number of times each story has been clicked on and also potentially useful information, such as the average time consumers spent on each story, and the stories visited immediately before and after. (p. 144).

Overall, consumers are now better able to communicate their preferences to journalists, both directly and through this online tracking technology (MacGregor, 2007). This ability to gather a mass of information from consumers and quickly process it impacts the routines and organisational practices of online journalists (Boczkowski & Mitchelstein, 2013). MacGregor (2007) notes that, broadly, the availability of data on consumer behaviour is challenging and changing journalistic instincts, leading journalists to make decisions based more on story popularity (rather than, perhaps, story importance). Studies have found that, increasingly, journalists no longer rely solely on their professional news judgments (MacGregor, 2007; Karlsson & Clerwall, 2013). Instead, they second-guess their decisions and check them against real-time audience feedback. Generally, “they no longer implicitly trust themselves” because of the growing influence of the audience and technology (MacGregor, 2007, p. 294).

In effect, then, information about which stories are the most popular in a day can lead to those stories being promoted or placed more prominently on the homepage (Lee, Lewis, & Powers, 2014). Popular stories can also be left on the homepage longer (Bright & Nicholls, 2014) or receive follow-up coverage and additional journalistic resources (MacGregor, 2007; Karlsson & Clerwall, 2013; Boczkowski & Mitchelstein, 2010). A constant drive for clicks can also mean high story turnover, with stories only being given 20 minutes to perform well on the homepage before being replaced (Tandoc, 2014). Overall, the type of instant feedback these new tracking tools offer is having a tangible effect on news content. In fact, Anderson (2011a), in one study of US newsrooms, found that clicks were becoming primary drivers of online news content and saw them underpinning many day-to-day newsroom decisions. Meanwhile, in a study of UK newsrooms, Schlesinger & Doyle (2015) noted that “data analytics were at the forefront of informing news judgments” (p. 315), with the aim being to attract larger, younger audiences.

The use of tracking tools at the Herald, and their potential influence on journalistic decision-making, will be considered later. But it can be noted here that journalists in New Zealand too have witnessed the growing influence of technology and commercialism. A survey of New Zealand journalists found that they were “feeling the impact of new media on their work practices” (Hannis et al., 2014, p. 15). Journalists saw the influence of audience feedback, user-generated content and social media increasing. They also said profit-making pressures were intensifying and complaints were made about “cost-cutting undermining the quality of journalism”, as well as an “increased focus on popular, quick turnaround stories” due to scarce resources (p. 17). “Journalists are drilled that they should produce a certain number of stories in a day and are judged on this more than on the quality of those stories,” one journalist said, while another observed that journalism in New Zealand had become “too productivity-driven” (p. 17)

An increased focus on popular stories and high turnover rates for news articles has arguably come about because online traffic, Van Couvering (2011) notes, has become the new media currency. It is currency sought out in the context of news outlets facing financial difficulties. Indeed, in terms of the tracking and pursuit of traffic has being linked to financial pressures, Vu (2014), in one study, found that editors were more likely to follow audience interests if they saw it as being beneficial to the news organisation's bottom line. In this regard, Van Couvering (2011) argues that "one implication of the traffic commodity is that a range of media, particularly new media but also traditional media, may begin to function differently as they seek to capitalise on the new commodity" (p. 192).

This has largely been found to be the case, with increasing traffic and engagement being a strategic goal and motivational force driving newsroom changes (Vujnovic, 2011). Pressured by a need to increase audience numbers (and make money), journalists have found themselves following audience interests more closely (Vu, 2014). This has led to a shift in journalistic attitudes, meaning a news story that attracts a large number of clicks can be considered successful, even though it may be lacking in journalistic quality or in importance (Vujnovic, 2011).

The influence of the audience is thus, arguably, leading to "a new populism in journalism" (Bright & Nicholls, 2014, p. 179). The contemporary news media landscape has witnessed the rise of the "agenda of the audience" (Anderson, 2011b, p. 529) and this is seen to be a challenge to traditional journalistic gatekeeping (Vu, 2014; Tandoc, 2014). Indeed, Lee, Lewis and Powers (2014), in one study, found that audience clicks had a greater impact on editorial decision-making than the other way around.

This is far from what Gans witnessed in his seminal study of journalistic decision-making in the 1970s. Gans (1979) saw that decisions about what to cover were made with regard to what was in the public's best interests. Journalists also produced news based on their own values, without reference to audience preferences. This attitude saw a strong focus placed on political and public affairs news. This gatekeeping process was one-way, with journalists largely ignoring consumer feedback because they had the freedom and money to do so (Boczkowski & Mitchelstein, 2013).

While the traditional role of journalists as primary gatekeepers has been challenged by changes in technology (Bruns, 2005; Vu, 2014; Tandoc, 2014; Shoemaker & Vos, 2009), the audience influences noted above have not all necessarily been negative. Some journalists have expressed that audience feedback has allowed them in some cases to make adjustments to stories to improve quality (Karlsson & Clerwall, 2013). More generally, journalists providing news closer to audience interests can also be seen as a type of cultural democratisation since more audience-centred news arguably better serves consumers and their interests (Gans, 1979; Beam, 2003). As Gans (1979) argues, a focus on audience numbers can be seen as a positive:

[Audience enlargement can be] viewed as cultural democratisation, extending to yet larger numbers of people the services of a profession that began centuries ago by supplying news solely to a small elite. Putting it another way, audience enlargement means extending the national news audience much further into the adult and young adult sectors of the lower middle-class, the working class, and the poor than is now the case. (pp. 247-248).

Journalists have also tempered the effects of the 'audience agenda' by holding onto traditional journalistic values, negotiating the space between journalistic and consumer preferences by falling back on professional norms (MacGregor, 2007; Karlsson & Clerwall, 2013). Nevertheless, despite pushback, the effect on journalists has been apparent. The influence of the audience agenda has increased as a result of technological change and the pressure placed on news outlets by falling audience numbers and profits.

2.2.2 What do these influences mean for news content?

These influences on journalists and editors are not new. They are forces which have been at play for many years, with the seeds of current trends being sewn in the 1980s and 1990s (Picard, 2004). In fact, Picard (2004, p. 55) argues that the market economy has played a role in shaping news content and quality throughout the entire history of the press. Nevertheless, the 21st century has witnessed the culmination of a raft of pressures on journalists, with the internet posing many challenges (Hague & Harrop, 2010). Additionally, an important point to note is that these journalists are often working in news outlets that operate both in traditional media and online, meaning medium-specific problems (i.e. declining newspaper circulation) can impact the whole business, including the online business. Thus, industry-wide issues can translate to online news outlets whose corporate parents may be looking for ways to ensure various parts of the business remain financially viable (Schlesinger & Doyle, 2015).

Overall, what the pressures and influences noted above make for is more audience-focused, advertiser-directed, market-oriented news content (Vu, 2014; Tandoc, 2014; Atkinson, 1994a; Atkinson, 1994b; Hirsch & Thompson, 1994). This translates to more sensationalism, less public affairs and more soft news coverage of sports, crime, health and weather (Boczkowski & Mitchelstein, 2013; Hamilton, 2004). As Picard (2004) argues, news outlets today do not have the public interest as a strong focus: "The primary content of newspapers today is commercialised news and features designed to appeal to broad audiences, to entertain, to be cost effective and to maintain readers whose attention can be sold to advertisers" (p. 61).

2.2.3 Journalistic news selections

This section considers studies on the news selections of journalists. Because literature specifically on online news content is limited, this review will, a) begin with an overview of

studies into newspaper and television news content and consider the continuity between these traditional mediums and the online medium before, b) specifically turning to online news content.

It is important to note, however, that this study looks at online news and, thus, an effort will be made to focus the review on the online context where possible. Literature on online news content is nevertheless limited, perhaps because of methodological issues associated with capturing and analysing ever-changing web pages (Karlsson & Stromback, 2010; Karlsson, 2012).

Generally, a broad reading of the literature on journalistic news choices yields the following conclusion: There has been a softening of the news agenda (more stories about sports, crime, celebrities) because of pressures placed on the journalistic profession, but journalists and editors still select more hard news and public affairs stories (stories about politics, world affairs, economics) than soft and non-public affairs stories because of the continuing influence of traditional journalistic values (Boczkowski & Mitchelstein, 2013). Thus, while soft news and non-public affairs stories have become a larger part of the daily news agenda, they have not taken over. Nevertheless, the internet has exacerbated problems facing the industry, with increased pressure placed on journalists to follow the audience agenda and produce more soft news (Vu, 2014; Tandoc, 2014). This review of literature covers these issues and note how online news is softer than news in other mediums – particularly newspapers.

Indeed, a reading of the literature reveals content differences by medium as well as by news outlet, target audience and differences depending on the commercial orientation of the outlet being studied. These issues will be addressed where relevant.

News selections 1963-2003

News content across different mediums has seen a number of changes over the years, but there are some broad trends which can be identified. A softening of the news agenda has occurred, arguably as a result of commercial pressures (Atkinson, 1994b; Cook, 2002, Sessions Stepp, 1999; Pew Research Center, 1998).

Indeed, Sessions Stepp (1999), in a study longitudinally assessing the content of American newspapers, found the news produced by journalists softened between 1963 and 1999. Although more coverage was given over to business and science news, Sessions Stepp found that coverage of sports and courts also increased. There was reduced coverage of local, national and foreign news and, overall, “a relative shift toward entertainment at the expense of news” (p. 72) that he attributed to “a clash between marketing and public service mindsets” in the newsroom (p. 73).

Sessions Stepp's findings track with the findings of another longitudinal study by the Pew Research Center (1998). Overall, the study found that content differed by medium and depending on the target audience of the outlet being studied – a finding which tracks with Hamilton's (2004) theories on news content being linked to commercial motivations and audience considerations. The review of news content in newspapers and on television in the United States between 1977 and 1997 found "a shift toward lifestyle, celebrity, entertainment and celebrity crime/scandal in the news and away from government and foreign affairs" (Pew Research Center, 1998, p. 1). There was also a trend witnessed in the study towards more human interest stories and 'news you can use'. Coverage of hard news topics (government, military, domestic affairs and foreign affairs) fell from 66.3% of the newshole in 1977 to 48.9% in 1997 – still a sizeable amount, but nowhere near the level of coverage given 20 years earlier. Feature coverage (entertainment, celebrity and lifestyle) meanwhile doubled from 5.1% of the newshole to 11.1%. The period of study also saw notable increases in coverage of personal health, crime, science and religion.

The Pew Research Center (1998) saw these content shifts as an example of "the media covering a broader spectrum of news, searching for new relevant topics in the face of declining audience share" (p. 3). However, while soft news coverage increased, 'infotainment', the study noted, "still [came] nowhere near dominating the traditional news package" (Pew Research Center, 1998, p. 1). Hard news still made up a large portion of the news on offer.

More recent analyses of content in newspapers and on television have found newsholes increasingly influenced by economic concerns. Lischka (2014) found that commercial news outlets were providing more news that was "closer related to the everyday life of consumers" (p. 560) and that these outlets provided more news consumers could use during the 2008-2009 financial crisis. Overall, "orientation to the needs of a general lay audience was more important to commercial than to public media" over the period of study from 2002 to 2010 (Lischka, 2014, p. 561). The author saw commercial news outlets providing more variety in their news coverage too. Lischka (2014) concluded that news selection for commercial outlets was driven by the pursuit of revenue, with news designed to appeal to lay audiences.

Hamilton (2004), looking at newspaper and television news, similarly found that content was shaped by audience and advertiser concerns. Target audiences dictated television coverage, for example:

Programs targeted at specific demographics do vary their news contents. Local television news shows with a higher percentage of female viewers were less likely to show hard news stories dealing with national and international affairs and less likely to do stories about state and local political officials. Programs in markets with higher viewer interest in hard news carried a higher number of national hard news stories and local political stories. In areas where viewers demonstrated a greater taste for

entertainment news, news directors added more soft news stories to local news broadcasts. (Hamilton, 2004, p. 138).

Reduced hard news television coverage for female target audiences tracked with the lower interest expressed by this demographic in government and public affairs news (Hamilton, 2004). For newspapers, Hamilton also found coverage dictated by audience interests, with crime coverage, for example, being driven by audience demand. “Newspapers do appear to target content based on reader preferences, and customers in turn are likely to subscribe if the content matches their interests,” he noted (p. 240).

Meanwhile, Beam (2003), in a study of American newspapers, found that “newspapers with a strong market orientation published proportionally fewer items about government and public affairs and proportionally more items about private life, coping, sports, and amusements” (p. 380). Beam found that papers with strong market orientations, for example, dedicated 28.7% of their main display pages to government affairs, while those that were more public service oriented devoted 39.2% of this space to the same topic. Despite these differences, however, Beam found that market oriented papers still provided a large amount of content on public affairs as well as business and economic news. The commercial papers did not abandon their public-service roles, with around 60% of front page stories being public affairs content. “The sense of a professional obligation to provide content for the public sphere remains, though perhaps it’s not as intense as in the past,” Beam observed (p. 381).

At the same time, Beam (2003) argued that it “may be that newspapers are broadening their views about what constitutes important or significant information for readers” (p. 381) and suggested they were branching out to provide news that was more relevant to the everyday lives of consumers, as evidenced by the focus on private sphere issues. “Perhaps,” Beam (2003) observed, “market-driven newspapers are revising the definition of what constitutes public-service journalism” by producing more news about personal health, family life, education, personal finance and less news about government affairs (p. 381). This accords with the observation made by the Pew Research Center (1998) about news coverage being broadened to include more topics relevant to everyday life.

Overall, the increased coverage of news related to consumer interests showcases the influence of factors mentioned in the previous section. A need to attract audiences, appeal to advertisers and generate profits is arguably behind the increase in soft, consumer-centred news in traditional news mediums. Further, a similar trend – towards the softening of the news agenda – has also been witnessed online, arguably due to the same political-economic factors.

Online news selections

These observed trends in news coverage – towards more soft news stories about entertainment, sports, health, crime, and consumer news as a result of commercial influences

(Atkinson, 1994b; Beam, 2003; Lischka, 2014) – have continued into the digital news era (Maier, 2010; Maier & Tucker, 2012). As noted, news online has also felt the impact of market pressures. This has produced continuity across the transition period from television and newspapers to digital news publishing. Trends have arguably been exacerbated online, however, because of the influence of internet technology. Consumer freedom, interactivity and the ability for journalists to make use of tracking technology have fuelled the rise of the audience agenda (Boczkowski, 2004; Vu, 2014; Tandoc, 2014). This has seen more soft news being produced and disseminated online.

For example, Maier (2010), in a comparison of the content in newspapers and online in United States, found that online news sites largely ignored topics such as education and religion and were more sensationalist. There were slightly more opinion and analysis pieces online, as well as more coverage of celebrities, entertainment, disasters and accidents. At the same time, however, Maier found that online news media offered broader international coverage than newspapers, though the coverage lacked the depth of newspaper reporting. Further, in terms of the prominent placement of certain topics, both newspapers and online news sites privileged disasters, accidents and US foreign affairs while playing down education, Maier (2010) found. Newspapers gave higher billing to economic stories, while online news sites gave slightly more prominence to celebrity, entertainment and foreign news.

Overall, the trends observed by Maier (2010) point towards a softer news agenda online. This view finds support in the findings of another study by Maier and Tucker (2012). That study found that news websites focused predominantly on crime, disaster and sports news. As in Maier's (2010) study, online outlets ignored topics such as health, education. In terms of political news, Maier and Tucker (2012) found that, comparatively, online outlets covered slightly less of this news topic than newspapers – though the amount of political coverage across both mediums was low. Again, online news lacked the depth of newspaper coverage and tended to focus on "local, quick-hit, breaking-news stories" (Maier & Tucker, 2012, p. 59). The authors reasoned that crime, disaster and sports coverage was high online because this news was cheaper and easier to produce. Indeed, they argued that coverage of such stories "makes rational economic sense" in a fast-paced cash-strapped medium.

Nevertheless, despite the increased selection of soft news by journalists online, hard and public affairs news still make up a large proportion of journalistic news selections. The majority of the comparative online research showing this has been authored or co-authored by Professor Pablo Boczkowski. Methodologically, these studies have compared the online news selections of journalists (measured by looking at the stories ranked highest at the top of website homepages) with the online news selections of consumers (measured by looking at the stories which appear in the 'most read' or 'most popular' lists on website homepages).

Generally, these studies have established that journalists, on balance, prefer public affairs news while consumers prefer non-public affairs news (Boczkowski & Mitchelstein, 2010; Boczkowski,

Mitchelstein & Walter, 2011; Boczkowski & Peer, 2011). These divergent preferences create a 'news gap' between the groups (Boczkowski & Mitchelstein, 2013). The size of this gap is large during periods of routine political activity. Journalists, because of professional values, tend to select more public affairs stories to disseminate despite the fact that consumers are largely interested in non-public affairs (Boczkowski & Mitchelstein, 2013).

These studies have found, however, that news interests are contextually variable. Time is, therefore, relevant and influential. It has been discovered that levels of interest in public affairs news shift when there is more political activity (Boczkowski, Mitchelstein & Walter, 2012; Boczkowski & Mitchelstein, 2013). For example, the likelihood of an online news story being about public affairs in the lead up to an election increases as the election approaches (Boczkowski, Mitchelstein, & Walter, 2012). More public affairs news can also be selected at times of heightened political activity, such as when political protests are occurring (Boczkowski & Mitchelstein, 2010).

Such findings indicate that journalistic selections can be influenced by time and context, but these studies, however, have only closely considered news selections across weeks and months, not over the course of a day. In terms of the analysis of smaller periods of time, Hamilton (2004) has observed that levels of soft news content on television are different at particular points of the day - with more soft news on offer at noon than during the evening news bulletin. Boczkowski (2010a) meanwhile points out that the amount of online sports coverage (and interest in this sports coverage) jumps considerably over the weekend. Neither of these studies, however, have considered news content across individual hours.

Overall, despite these contextual shifts, the news selections of journalists have largely remained stable across various studies at different times. Journalists still choose to display public affairs stories (those stories dealing with politics, government, economics, business and international affairs) more prominently on news sites during most times – evidence of the importance placed on public service journalism by news workers (Boczkowski & Mitchelstein, 2010; Boczkowski & Mitchelstein, 2013).

Yet while journalists choose more public affairs than non-public affairs news stories to display prominently online, online news is still softer and lacking in depth in comparison to newspaper content, for example (Maier & Tucker, 2012; Maier, 2010). The softness of online news can be related to the outlet being studied.

In terms of news selections across types of news outlets, Boczkowski and Mitchelstein (2010) have found large differences between tabloid and broadsheet-based news sites - an indication of the role organisational goals and commercial orientation might play in journalistic news selections. A tabloid outlet studied in Argentina selected far less public affairs news to display prominently than the broadsheet-based outlet it was compared to – 34.9% to 67.9%. On American news sites, there were similar differences found in the levels of prominence given to

public affairs stories across cnn.com, news.yahoo.com, and the online news sites of the Chicago Tribune and Seattle Post-Intelligencer (Boczkowski & Peer, 2011). Meanwhile, in a study looking at news outlets in South America and Western Europe, there were again large differences in levels of public affairs and non-public affairs news across different sites (Boczkowski, Mitchelstein & Walter, 2011). Such differences perhaps showcase the relevance of site profile and target audience to the news selections of journalists. Different websites will have different emphases on public affairs news, depending on their branding and organisational goals (Tewksbury & Rittenberg, 2015).

One note to make is that these studies have analysed news stories within broad public affairs/non-public affairs categories, making it difficult to assess levels of interest in certain news topics. This binary way of looking at news arguably limits the richness of the analysis.

A better approach was perhaps taken by Curtain, Dougall and Mersey (2007). The authors, in a study using a similar methodology to the Boczkowski co-authored studies, provided a breakdown of news selections by topic, allowing for a richer analysis. The authors found that editors at Yahoo! News showed a preference for world news and national political affairs. The top news categories for online editors were, in order: World (1), National/Politics (2), Health (3), Entertainment (4), Business (5), Odd News (6), Science (7), Sports (8), Technology (9). The findings are consistent with the Boczkowski co-authored literature.

Despite this limitation, what the Boczkowski co-authored studies do establish is the existence of a sizeable news choice gap between journalists and consumers – one that transcends geography and ideological differences between news sites (Boczkowski & Mitchelstein, 2013; Boczkowski, Mitchelstein & Walter, 2011). They also show journalists and editors continuing to give prominence to public affairs news while, at the same time, throwing sizeable numbers of non-public affairs stories into the mix for those consumers who are mostly interested in this type of news.

Interestingly, Boczkowski and Mitchelstein (2013) did branch into a discussion of news topics in a book which brought their previous research together. The authors noted that, overall:

Research has consistently shown that journalists at generalist, mainstream news organizations consider stories about politics, economics, and international matters...to be more newsworthy than articles about subjects such as crime, entertainment, sports, and the weather...The preference of news producers for public-affairs topics results from professional and organizational norms that are at the core of the occupational identity of modern journalism. (2013, p. 6).

Consumers, meanwhile, showed a strong preference for non-public affairs stories and disinterest in political and government reporting (Boczkowski & Mitchelstein, 2013).

Overall, what the literature here shows is that despite different outlets and countries being analysed, there is a general journalistic preference for hard news and public affairs (Boczkowski & Mitchelstein, 2013; Curtain, Dougall & Mersey, 2007), but that there is also a sizeable proportion of soft news on offer too (Maier & Tucker, 2012; Singer, 2011).

Further, news online appears to be softer and more non-public affairs oriented than news in other mediums (Maier, 2010; Maier & Tucker, 2012). Comparing levels of public affairs news online to levels of public affairs in newspapers, it can be seen that there has been some decline. The Pew Research Center (1998) study generally saw higher levels of public affairs news interest than the Boczkowski co-authored studies. A large proportion of front page newspaper stories dealt with public affairs issues in 1977, with a heavy emphasis on government, foreign affairs and business/commerce (Pew Research Center, 1998). Those high levels of public affairs news have slipped back somewhat now, with more news about crime and sports on offer (Maier & Tucker, 2012; Boczkowski, Mitchelstein & Walter, 2011).

This softening of the news agenda is a trend which has been witnessed in New Zealand too. This review of literature will now consider the New Zealand context.

News content in New Zealand

Studies of online news in New Zealand are limited and no peer-reviewed literature has compared the news interests of journalists and consumers. Studies into news content in New Zealand have focused on journalists and largely considered television content, covering the deregulation and commercialisation of the New Zealand broadcasting sector in the late 1980s and its subsequent impact on news quality (see Cook, 2002; Atkinson, 1994a). The deregulation of New Zealand's media industry saw the removal of foreign ownership restrictions, which led to the overseas takeovers of radio stations, television networks and newspapers across the country (Cocker, 2006). In television, this saw the introduction of new media players, increased competition and the commercialisation of news (Cook, 2002; Atkinson, 1994a).

Broadly, the cross-media impact of deregulation has shaped New Zealand news content. Trends attributed to the commercialisation of New Zealand television include reduced foreign and domestic political coverage, increases in celebrity news, crime news and a boost in the number of human interest stories (Cook, 2002; Atkinson, 1994b). These shifts prompted McGregor (2002b), in one article, to posit four new news values dictating television coverage in New Zealand: Visualness, emotion, conflict and the celebrification of journalists.

Specifically, in Cook's (2002) study of One News content over the period of deregulation from 1984 to 1996, he saw that coverage of news about politics – both domestic and international – reduced, while coverage of economic news, crime, courts and human-interest stories increased. Meanwhile, Atkinson (1994b) found that the majority of television news coverage on One News was about sports, followed by a focus on crime, war, disaster and human interest stories.

Content changes were attributed, in part, to news producers paying more attention to audience research and consultants (Atkinson, 1994a). Atkinson (1994a) records how overseas consultants were brought into TVNZ to revamp One News, leading to the 'Americanisation' of New Zealand's television news landscape. This shift in approach entailed the personalisation of news, the addition of more emotional and human-interest news angles, the shortening of stories and increased focus on visual storytelling. Bulletins were depoliticised and content oriented towards audience wants and needs (drawn from audience research).

The softening and trivialisation of New Zealand television news was a consequence, Atkinson (1994a) argues, of intense competition for advertising dollars and the attention of marginal viewers. TVNZ, in particular, was under pressure to show it was performing well commercially and to return dividends to the government (Thompson, 2002). Eager to attract advertising dollars, One News oriented towards audience maximisation, seeking out marginal consumers and younger audiences sought by marketers (Atkinson, 1994a). The result was the production of ratings-driven television news bulletins that were filled with "cheap, highly-personalised, dramatic and politically unproblematic crime and sports stories" (Atkinson, 1994b, p. 57). Domestic news coverage saw a sharp decrease, with imported stories from overseas increasingly taking up space in nightly news bulletins that were depoliticised, morselised and "robbed of useful substance" (Atkinson, 1994b, p. 56).

One study which considered newspapers also observed a change in content over this deregulation period. McGregor (2002a) recorded slight increases in newspaper crime coverage between 1992 and 2001, with 19.63% of 'hard news' stories (any story that wasn't a feature, editorial, opinion piece or column) in 2001 covering crime compared to 16.44% in 1992. McGregor (2002a) put increases in crime reportage down to, in part, the media being bolstered "by a strong feeling that this is what the public wants" (p. 93).

Gibbons (2014), looking at coverage in regional newspapers across New Zealand, found that papers devoted, by far, the most space to sports news, followed by entertainment, local news, business, world, lifestyle and national news. Interestingly, Gibbons (2014) also noted that world news was an important part of New Zealand newspaper coverage - in contrast to local papers in the United States. The emphasis placed on soft news coverage by the papers studied (sports, entertainment, lifestyle) led him to argue that content decisions were being made to attract readers and advertisers: "These stories play an important role in encouraging people to purchase newspapers" (Gibbons, 2014, p. 191).

Regarding news online, Dahlberg (2005), in one study, found that sports, entertainment and lifestyle stories appeared more often on the Xtramsn homepage than serious hard news stories about local or international affairs. The entertainment and lifestyle stories which featured provided consumer information and advice, leading Dahlberg (2005) to conclude that "the reader of the site is assumed to be a consumer, positioned as a subject who is more interested

in news about products and personal needs than wider community issues and problems” (p. 102).

Overall, New Zealand news trends appear to have been largely influenced by commercial concerns. Advertisers, consultants and media owners have placed pressure on New Zealand journalists, resulting in the production of softer, more populist news (Atkinson, 1994a; Cook, 2002).

These trends track with overseas trends. Research into television, newspapers and digital news in the United States especially matches these shifts, with crime, celebrity and, interestingly, business/finance news receiving more coverage (Beam, 2003; Sessions Stepp, 1999; Pew Research Center, 1998). There has been a general softening of the news agenda that has occurred alongside increased commercialisation.

2.2.4 Conclusions about journalistic news selections

Overall, studies indicate news content over the past five decades across different mediums has been getting softer. That means more news about crime, accidents, disasters, sports, weather, celebrities, entertainment and lifestyle. It also means less public affairs reporting – that news about politics, government and international issues. The transition into the online news era has seen news websites offering less depth and breadth than newspapers (Maier, 2010). Online, there is pressure to increase the amount of soft news on offer to better align the news selections of journalists with the interests of consumers (Boczkowski & Mitchelstein, 2010).

Importantly, what these studies also show is variation by outlet – that the commercial orientation and target audience of a news outlet will shape that outlet’s news output (Lischka, 2014; Beam, 2003). Tabloid-oriented news sites will publish less public affairs news than upmarket outlets (Boczkowski & Mitchelstein, 2010). News outlets with strong market orientations will publish less news about government and public affairs and more about lifestyle and sports (Beam, 2003). Thus, commercial influences are important. The need to retain audiences and make money risks news outlets shaping content for the most profitable market segments (Hirsch & Thompson, 1994; Hamilton, 2004). Evidence of this has been witnessed both overseas (Hamilton, 2004) and in New Zealand (Atkinson, 1994a; Cook, 2002).

Further, studies have shown that while there is a consistent gap between the news selections of journalists and consumers in normal times, at times of heightened political activity – during elections and protests – the interests of consumers and journalists shift (Boczkowski, Mitchelstein & Walter, 2012; Boczkowski & Mitchelstein, 2013). Thus, news selections have been seen to be variable and context-dependent.

Generally, however, journalists still select more public affairs news in comparison to consumers – arguably because of the continuing influence of traditional journalistic norms and values

(Boczkowski & Mitchelstein, 2013). Thus, while commercial pressures and the influence of the audience have somewhat eroded journalistic gatekeeping power (Vu, 2014; Tandoc, 2014), journalists have continued to select and disseminate a fair share of news about world and national affairs (Curtain, Dougall, & Mersey, 2007; Boczkowski & Mitchelstein, 2013).

Despite this, journalistic decision-making is still increasingly influenced by audience research, web tracking data and underlying profit motives (Tandoc, 2014; Vu, 2014; Cook, 2002; Atkinson, 1994a). Numerous studies have noted the financial and organisational pressures placed on newsrooms and pointed to the consequences these pressures have had for news content (Atkinson, 1994a; Atkinson, 1994b; Cook, 2002; Hamilton, 2004; Ettema & Whitney, 1994). Technological and organisational changes have seen increased pressure placed on journalists and editors to follow audience interests and increase click numbers. Studies have also turned up some mixed results about the resistance of journalists to these outside influences, with most point generally towards news becoming audience-centred (Anderson, 2011a; Vu, 2014; Karlsson & Clerwall, 2013; Tandoc, 2014;

Overall, it can be argued that news is no longer simply about what journalists think is important. There is a tension at play between journalists who hold traditional views about their role and a new generation of news producers who are being influenced by the environment and circumstances which surround them (Boczkowski & Mitchelstein, 2013). The consequence of this interplay is the production of news which is not necessarily important to the democratic functioning of society but which is most relevant to a news outlet's target audience. A review of the literature bears this out.

Some, including Gans (1970), have posited that this might not be a bad thing. Beam (2003) suggests that journalists may be expanding the definition of public service journalism to include reportage of stories about personal finance and health. This works in favour of the interests of consumers, advertisers and news outlets looking to boost audience numbers and profits (Hamilton, 2004). Stories about these topics and others such as education, social welfare and consumer goods are arguably more relevant to the everyday lives of consumers. Politics, as Boczkowski and Mitchelstein (2013) point out, is not always relevant or important to members of the public in their daily lives. The price of gasoline is. Journalists are the ones who place great importance on stories about politics, public affairs and government because they see their job as crucial to the democratic functioning of society (Singer, 2003). Consumers, meanwhile, appear more concerned about the weather, personal finance and health (Robinson, 2007a).

"It is generally unquestioned in journalistic circles that a central job of the press is to provide information citizens can and will use to govern themselves wisely," Singer notes (2003, p. 144). But, in light of everything that is bearing down on the journalistic profession, that formulation may need to be rethought. Should journalists be providing information people need to operate in a democratic society or information that is relevant to their everyday lives?

As Beam (2003) observes in relation to newspapers:

In relying more on readership research to fathom audience concerns and interests, market-driven newspapers may be discovering that the information readers feel that they need to be good citizens or to cope with the central concerns of their lives may not be the traditional content intended for the public sphere. For example, issues affecting the family or culture may have substantial social or political implications, but coverage of them generally would not be classified as public-affairs content. Perhaps market-driven newspapers are revising the definition of what constitutes public-service journalism. (p. 382).

The influence of the internet on news work and the news business, Mersey (2010) argues, means journalists have to rethink their role:

The important question today is not: 'How do journalists serve their communities?' The essential question is: 'What is the real job that democracy requires of journalists?' The real job today is reaching an audience, even if it is a select one, and compelling members of that audience to care about issues and people that they otherwise might not have known. (p. 33).

2.3 Demand: The news selections of consumers

2.3.1 What shapes the (online) news selections of consumers?

An overview of the potential influences on the news selections of consumers is also necessary to establish what may be behind findings about consumer news selections. Further, these potential influences will also inform the hypotheses of this study.

Broadly, as with journalists, the news selections of consumers can be influenced by numerous factors. Tewksbury and Rittenberg (2015) note that, "[h]ow people select media and messages is rarely random. People base their exposure decisions on things they want from the media" (p. 24). Thus, consumers seek out news to satisfy their own interests or desires, whether that be for pleasure, enjoyment or fostering a sense of connection to the world (Martin, 2008; Meijer, 2012; Barnes, 2014), surveillance (Barnes, 2014), the construction of personal identity (Mersey, 2010), titillation or satisfying curiosity about death and violence (Tenenboim & Cohen, 2015), distraction or alleviating boredom (Meijer, 2012; Boczkowski, 2010a), facilitating social interaction with others (Martin, 2008; Boczkowski, 2010a), or learning about society and engaging with politics in fulfilment of a civic duty (Boczkowski & Mitchelstein, 2010). These influences are all generally considered to be part of consumers' uses and gratifications (Katz, Blumler, & Gurevitch, 1973-1974).

Political preferences and consumer demographics can also play a role in consumption decisions, driving people to different news outlets and towards different news topics (Kaufhold, 2014; Stroud, 2011; Tewksbury & Rittenberg, 2015; Bennett & Iyengar, 2008; Gromping, 2014; Jacobson, Myung & Johnson, 2015; Pew Research Center, 2014; Pew Research Center, 2012a; Hamilton, 2004)). Further, ritual and habit are important components of regular news consumption (Meijer, 2012; Martin, 2008; Boczkowski, 2010a; Boczkowski, 2010b).

What this study looks at, however, is political-economic influences on news selections. This entails considering how technology, consumer agency and journalistic influence - all operating within a free market system - might shape online news selections. Importantly, this focus on political-economic factors takes into account how consumers are part of the media production process and not simply passive receptors of messages (Biltereyst & Meers, 2011).

The relevant factors which potentially shape consumer news selections are:

1. Consumer agency and freedom of choice
2. Journalist interests and behaviour

Each factor will be considered in turn.

Consumer agency and freedom of choice

The online news selections of consumers can be seen to be shaped by consumer agency and freedom of choice (Boczkowski, 2010a). The nature of the internet is important in facilitating this freedom. Boczkowski and Mitchelstein (2013) note that the nature of the internet shapes consumer behaviour because it allows them to more freely enact their own preferences. The authors characterise the internet as a “high-choice” medium that facilitates greater consumer agency.

Indeed, consumers online are not constrained in the same way they are by linear television broadcasts or the limited selection of stories offered in newspapers (Hague & Harrop, 2010). In these traditional mediums, consumers have choices in terms of the outlets they prefer and they are able to decide which news sections or segments they pay attention to, but they have no choice about the individual news stories made available to them. Newspapers and television news broadcasts, in sum, come as ready-made packages.

News selection online, however, is more fluid and dynamic (Karlsson & Stromback, 2010; Karlsson, 2012). Consumers can jump between stories via hyperlinks in a nonlinear fashion, meaning they are more able to follow their own news agendas (Althaus & Tewksbury, 2002; Prior, 2005; Tewksbury, 2002). Indeed, in one study, Althaus and Tewksbury (2002) observed that consumers reading newspapers (a low-choice medium) adjusted their interests to those of

the editors who put the paper together. Online news readers, on the other hand, tended to follow their own news interests.

Consumer agency can, therefore, be seen to be more fully realised online. Because people are given the opportunity to ignore or pay less attention to particular news topics, they do so (Althaus & Tewksbury, 2002; Tewksbury, 2002; Prior, 2005; Hague & Harrop, 2010). Prior (2005) and Boczkowski and Mitchelstein (2013) note that while many people once were incidentally exposed to politics through newspaper reading and linear television broadcasts, technology now allows consumers to avoid everything they do not wish to see. Thus, the internet has been seen to facilitate greater selective exposure to information (Sunstein, 2007; Pariser, 2011). Generally, this selective exposure can lead to an increase in the consumption of soft news and a decrease in political and public affairs news consumption (Boczkowski, 2010a; Boczkowski & Mitchelstein, 2013; Prior, 2005; Stroud, 2011).

Indeed, Boczkowski (2010a), in a study of online news reading, found that consumers enacted a high level of agency in online news selection, deciding to engage with lighter topics despite journalists offering them a diet of public affairs stories. Additionally, Boczkowski and Mitchelstein (2013), in another study of online news reading, observed that:

Our findings show that there is active avoidance of public affairs stories rather than passive lack of interest in them, and that in a “high-choice” media environment such avoidance is easier than it was in the past. This avoidance is an outcome of the perception among consumers that public affairs stories make greater cognitive demands than stories on non-public affairs topics. (p. 144).

Generally, then, consumers have been seen to follow their own interests and desires online. The expression of agency can be linked to uses and gratifications theory, which holds that people make active and self-aware decisions about what content they consume (Katz, Blumler, & Gurevitch, 1973-1974; Tewksbury & Rittenberg, 2015; Mersey, 2010). Motivations for news selection can include the desire for surveillance, entertainment, socialisation, diversion, escape, personal expression, boredom alleviation or value reinforcement, among other desires (Katz, Blumler, & Gurevitch, 1973-1974). The online environment arguably allows consumers to better follow these motivations because they are free to operate in the manner they wish. The enactment of consumer desires has potential consequences for news selections, in this regard, with an increased likelihood of consumers choosing to read news stories that entertain or which facilitate social interactions (Prior, 2005; Boczkowski, 2010a).

Further, this freedom of choice offered by the internet also means freedom of access. The Pew Research Center (2012a) notes that, “The availability of online and digital news has increased the ability of Americans to get news when they want” (p. 28). The ease and ubiquity of mobile phones prompts constant use (Doyle, 2014). This constant use leads to the sporadic consumption of news which has been referred to as ‘news grazing’ (Pew Research Center,

2012a). This shift in consumption habits also has potential impacts on the nature of consumer news selections.

Traditional accounts of news consumption identify the role of different news mediums in routines of daily life, with people reading the newspaper in the morning, for example, and watching the television news in the evening (Boczkowski, 2010b). Indeed, research in New Zealand indicates there is still somewhat of a delineation between morning and evening news consumption, with newspapers and online news dominating morning consumption and the 6 p.m. evening bulletin drawing attention to television in the evening (New Zealand On Air, 2014).

The internet is challenging these routines, however, and more people now read news on computers at work and on mobile phones - not just on single occasions but throughout the day (Boczkowski, 2010a). In New Zealand, the influence of mobile technology has seen consumers increasingly 'snacking' on content throughout the day (Cheng, 2015a; Cheng, 2015b). In terms of online news habits, Boczkowski (2010b) observes that people often visit news websites habitually at a certain time in the morning or around lunchtime and make subsequent shorter visits throughout the day. These subsequent visits are often prompted by a desire to alleviate boredom or pass the time and people typically look for breaking news or novel and interesting stories (Boczkowski, 2010a; Boczkowski, 2010b).

The influence of journalists

The online news selections of consumers may also be shaped by journalistic behaviours. There are two main features of journalistic behaviour relevant here. First, the branding of news websites is important in shaping which consumers go where online. Second, the structure and design of news websites shapes how those consumers behave once there.

Branding

Generally, people make content decisions based on what their particular interests or desires are (Tewksbury & Rittenberg, 2015; Meijer, 2012; Mersey, 2010; Katz, Blumler, & Gurevitch, 1973-1974). The demographics of news consumers can also be relevant, with consumers from different age groups, ethnic backgrounds, genders, educational backgrounds and with different political affiliations will read different amounts of news and different types of news stories (Kaufhold, 2014; Tewksbury & Rittenberg, 2015; Hamilton, 2004; Martin, 2008; Pew Research Center, 2013a; Pew Research Center, 2015b; Pew Research Center, 2014; Stroud, 2011).

Journalists and particular news organisations can take advantage of these consumer demographics and preferences to create a brand that attracts certain types of people (Tewksbury & Rittenberg, 2015). Indeed, news outlets can and do discriminate in terms of the particular audiences they want to attract - oftentimes targeting those with the most disposable

income to spend (Turow, 2005). The brands these news organisations develop and the types of consumers they draw in will shape the results of any news consumption study.

For example, in the world of television Fox News is considered politically conservative and attracts an audience that is considerably more conservative than the audience for other television news outlets (Pew Research Center, 2014). These conservative Fox consumers “frequently report following politics, international affairs, and crime. They exhibit less interest in science and technology, culture and the arts, and health news” (Tewksbury & Rittenberg, 2015, p. 76). New York Times consumers, meanwhile, show little interest in crime news and a high interest in politics, international affairs and science (Tewksbury & Rittenberg, 2015). The New York Times’ brand reputation is different to that of Fox News, shaping the kind of audience drawn in.

Thus different outlets with particular brands draw in different audiences which have particular news preferences. Hamilton (2004) notes that “outlets with reputations for hard news content and analysis have audiences with the highest percentage following this type of news” (p. 76). Writing about the context of the United States, he adds that, conversely, “[outlets] with reputations for soft news have audiences with some of the lowest percentages of readers or viewers following events in Washington” (p. 76). Broadly, what an audience believes they will find at a particular news outlet will shape their use of that outlet and this will be reflected news selection data (Tewksbury & Rittenberg, 2015).

Site structure and journalistic decisions

Once consumers have gone through the process of selecting a news outlet based on their preferences, site structure and the news selection decisions of journalists come into play.

Site structure and the presence of importance or popularity indicators on news websites can indeed shape the news reading behaviour of consumers (Tewksbury & Rittenberg, 2015; Thorson, 2008). Stories that are placed at the top and on the left-hand side of web pages are generally viewed more often by consumers because of habitual reading patterns (Tewksbury & Rittenberg, 2015). The stories placed in these prominent positions are generally viewed as the most newsworthy, akin to stories placed on the front page of a newspaper, and this contributes to their increased likelihood of being read (Boczkowski & Mitchelstein, 2013; Tewksbury & Rittenberg, 2015). Larger headlines and pictures can denote importance and, along the presence of popularity indicators (such as a list of the day’s ‘most read’ or ‘most emailed’ stories), these factors can further increase the likelihood of a story being clicked on (Tewksbury & Rittenberg, 2015; Thorson, 2008; Bright & Nicholls, 2014).

More broadly, Boczkowski (2010a), in a study of online news readers, observed that during their first visit of the day consumers will often scan news homepages, reading headlines and synopses, and end up clicking on only a few links on the page after surveying it. During this

scanning process, politically-uninterested consumers often ignore public affairs headlines (Boczkowski & Mitchelstein, 2013). Subsequent visits by readers to news websites throughout the day are less comprehensive or methodical, with people typically briefly looking for something breaking or novel (Boczkowski, 2010a). Thus, site structure and consumer habits feed into news selections.

The influence of these importance and 'newsworthiness' indicators, however, is undermined by the freedom of choice offered by the internet. Studies have shown that while the prominence of stories on news websites may be a factor in prompting clicks, consumers will often follow their own news agendas and ignore these journalistic indicators in favour of their own interests (Lee, Lewis, & Powers, 2014; Curtain, Dougall, & Mersey, 2007; Boczkowski, 2010a). Nevertheless, these importance indicators do play a role in shaping the news selections of consumers.

2.3.2 What do these influences mean for news selections?

Overall, the desire of consumers to seek out news content that entertains or interests them personally and which make lesser cognitive demands (Boczkowski & Mitchelstein, 2013; Martin, 2008) means the selection of news stories focused on soft, non-public affairs topics. This means greater consumer interest in sports, entertainment, weather, personal health and crime (Boczkowski & Mitchelstein, 2013; Boczkowski, 2010a).

Generally, the internet allows consumers to more fully enact their personal preferences, unrestrained by the medium limitations of newspapers and television broadcasts. This sees consumers expressing their collective preferences and interests in a purer fashion – perhaps closer to the reality of news preferences that have existed all along (Prior, 2005). Those consumers who are interested in politics and hard news are now more able to follow their passions, while those who are disinterested can avoid this type of news or simply avoid news altogether (Stroud, 2011; Boczkowski & Mitchelstein, 2013). And while the interests of journalists - and the particular structures of news websites - can shape consumer interests in some way, there is a tendency for consumers to follow their own path (Curtain, Dougall, & Mersey, 2007; Boczkowski, 2010a).

This is important because, as noted, online tracking technology gives journalists insights into what consumers are clicking on, prompting them to make decisions based on that information. And there is preliminary evidence that these consumer news selections might be having a greater impact on journalists than the other way around (Lee, Lewis, & Powers, 2014). Identifying the nature of these consumer news selections is therefore important and this is what the next section addresses.

2.3.3 Consumer news selections

A broad reading of the literature on consumer news selections yields the following conclusion: Consumers have had a stable diet of news interests that centre on soft, non-public affairs news stories that are personally relevant or useful. This has meant a focus on crime, sports, entertainment, weather, health and diet news, as well as news about personal finance. This same literature indicates, however, that these interests can and do shift depending on the circumstances. News selections, in this regard, can shift at times of heightened political activity (Boczkowski & Mitchelstein, 2013; Boczkowski, Mitchelstein, & Walter, 2012). This means consumers express more interest in political and public affairs stories around elections and at other times when the political climate is particularly heated or when certain issues are at the centre of national attention.

Nevertheless, despite this increased interest in public affairs news at times of heightened political activity, the 'default mode' of the public is the consumption of non-public affairs news and it is to this default mode that consumers reset after elections and political protests have ended. There is also evidence that topics of interest can shift between weekends and weekdays (Boczkowski, 2010a) and some suggestion that interests are different at particular points during the day (Hamilton, 2004). Such observations will be discussed in the review of literature following.

At the outset, however, it is perhaps prudent to note that study methodology is crucial to the results of consumer news interest studies. As Boczkowski and Mitchelstein (2013) point out and Robinson (2007b) recognises, when it comes to surveys, there is always the potential for survey respondents to misremember or mislead when it comes to talking about the news that they consume. There is also a disjuncture in some instances between the news stories people say they prefer and the news stories they actually consume (Trussler & Soroka, 2014). Tewksbury (2003), for instance, found notable differences between the news stories consumers said they were interested in (assessed using a survey) and what news they actually consumed online (assessed using web data).

In light of this, Tewksbury (2003) argues that the internet is a tool "that allows researchers to observe news reading behaviour more reliably and less obtrusively than had been possible before" (p. 695). Some academics have, as a result, decided to use alternative methodologies that do not place reliance on survey respondents giving accurate and truthful accounts of their consumption behaviour. Instead, web data and a type of online content analysis have both been used to gauge news interests by looking at what stories people click on the most.

These online studies will be addressed later, but first television and newspaper news interests will be considered. A review of offline news interests is relevant, given the limited literature on the online news selections of consumers. This literature also provides some context for trends in online news selections. However, issues with methodology must be kept in mind.

News selections 1979-2012

Academic literature detailing the offline news selections and preferences of consumers between 1979 and 2012 have noted that consumers largely focus on stories which are relevant to their personal lives and local/social contexts. Studies have also noted that consumer preferences have remained stable during this time, with a consistent emphasis on soft and non-public affairs news. However, they have also found that not all consumers have the same preferences, with consumers with different demographic profiles having varied interests.

First, a number of studies have noted this preference for personally-relevant news. Gans (1979), for example, recorded that American consumers of television and magazine news in the late 1970s preferred stories that affected them personally. These were not the types of hard national and international affairs stories journalists preferred but stories which were about personally relevant topics such as the economy and health. Similarly, Bogart (1984) also observed that the personal relevance of news stories mattered to American newspaper consumers, while Stone and Boudreau (1995) found that local news rated highly.

Considering this latter study further, Stone and Boudreau's (1995) longitudinal study of American newspaper consumers found that content preferences did not change significantly between 1985 and 1994. There was a consistent emphasis on local news and national news, with these topics rating highly. Sports and economic news, meanwhile, ranked consistently low. They did find, however, differences in news topic preferences between age groups. The authors observed that younger consumers ranked sports and entertainment news higher among their most preferred news topics than those over 34. Older consumers ranked national and international news higher.

Another longitudinal study also saw the news preferences of consumers remain stable over time. Robinson (2007a) found that the news categories American consumers reported following the closest between 1986 and 2006 remained the same. The categories most-followed were disaster news (reports about natural and manmade disasters and catastrophes), money news (reports about employment, inflation and the prices of goods – especially gasoline prices), conflict news (reports about war, terrorism and social upheaval) and weather. Tabloid news, scandals, celebrities, international stories, sports, science and technology news were among the least followed categories reported by American news consumers. Overall, Robinson (2007a) observed that:

On balance, there is scant evidence that during the last quarter century – despite major changes in the news “menu” – the American audience has moved toward a diet of softer news. News tastes have become neither less nor more serious since the 1980s. (p. 3).

In terms of political interests, the percentage of people following political news closely from 1986 to 2006 remained between 21 and 24%. Meanwhile, the percentage of people following tabloid news closely remained between 17 and 19%.

Robinson's (2007a) findings, however, may have been a product of the methodology employed in collecting data about consumer interests. His conclusions are based on survey response data, which is potentially problematic in terms of truthfulness and accuracy (Boczkowski & Mitchelstein, 2013). Indeed, Robinson (2007b) does recognise a potential problem with surveys. He notes that the low reported interest in entertainment and celebrity news may be a product of survey respondents wanting to give socially acceptable responses - not admitting an interest in tabloid affairs and instead claiming an interest in harder news. Indeed, he points to ratings data that contradicts the public's stated low interest in tabloid news.

Nevertheless, Robinson's findings largely track with the findings of the Pew Research Center's (2012a) study of American news consumption trends. That study found little difference between the news topics consumers reported following "very closely" in 2004 and 2012. By far the most popular category over this period of time was weather, followed by crime news, community news, sports and health. Again, entertainment and international news ranked last in the list of news categories.

In terms of demographic differences in news preferences, the Pew Research Center (2012a) study found that young people (18-29) followed entertainment news much more than older people, with entertainment news ranking fifth among the categories of most-followed topics behind weather, sports, crime and community news. People aged 18-29 also reported following politics significantly less frequently than people 50+. Only 5% of respondents 18-29 said they followed political news "very closely" compared to 21% of those 50-64 and 27% of those 65+. There were similar trends in the local government, international affairs and business categories. In general, the Pew Research Center (2012a) found that older people reported following public affairs news much more than young people.

Meanwhile, Hamilton (2004), looking at the overall habits of American television, magazine and newspaper consumers, observed that the most-followed news topics were, in order: crime, health, sports, local community news, religion, local government and science/technology news. The categories which ranked low were culture/arts, business/finance, international affairs and consumer news. Additionally, Hamilton also pointed to news consumption differences by demographic. Women were seen to follow health news much more than men. Conversely, men followed sports, business, international affairs and science/technology news more closely than women. Further, regarding age group differences, Hamilton observed that interest in politics skewed towards older consumers, while an interest in entertainment skewed towards younger consumers. Young people (18-34) gravitated strongly towards non-public affairs news (entertainment and sports) and older people (50+) gravitated strongly towards public affairs news (national politics, business/finance, international affairs, local government).

Overall, studies of offline news interests from 1979 to 2012 saw consumers favouring local, personally-relevant stories from soft news topics. News which was relatable – either because it is helpful to everyday life (such as news about gasoline prices) or because it is concerning on a personal level (such as news about jobs, the economy and health) – was favoured by consumers (Gans, 1979; Bogart, 1984; Robinson, 2007a). Consumers gravitated towards crime as well as news about conflict, money, disasters and the weather (Gans, 1979; Robinson, 2007a; Pew Research Center, 2012a; Hamilton, 2004). Such findings lend support to the idea that consumers seek out news for the purposes of surveillance, escape, boredom alleviation and entertainment (Mersey, 2010). Politics and world affairs (non-war stories and non-terrorist stories) ranked relatively low among consumers throughout this period. Reported interest in entertainment and celebrity news was also low, but there have been some observations made about the potential unreliability of survey responses in this area (Boczkowski & Mitchelstein, 2013). Issues with methodology may not explain the low interest in politics and world affairs, however.

In any case, online news studies have sought to rectify methodology issues by using a content analysis approach to study consumer news interests. The availability of click data and the use of ‘most popular’ lists by many news websites has allowed researchers to unobtrusively observe what news stories consumers choose to read the most online (see Boczkowski & Mitchelstein, 2013). This has removed concerns about biases in survey responses and has arguably allowed researchers to probe the real news interests of consumers. These online news interests, which are most relevant to this research, are considered in the following section.

Online news selections

One of the first studies to use online news viewing data, David Tewksbury’s ‘What Do Americans Really Want to Know?’ (2003), sought to gain a more complete understanding of the American news audience by tracking reader clicks, rather than taking survey responses at face value. Looking at survey responses, 67.5% of online news readers in Tewksbury’s study reported following national politics, followed by 66.5% for international affairs and 63.7% for business and finance news. Conversely, fewer respondents reported following sports news (55.7%) and entertainment news (57%). Tewksbury concluded that, based on survey responses, online news readers were particularly interested in public affairs and business news. Looking to online readership data, however, Tewksbury (2003) found that rather than being interested in national politics, international affairs and business, online readers showed a strong preference for sports.

However, over two months, Tewksbury (2003) found that the proportion of pageviews for a range of news topics broke down as follows: Sports (26% of all views), business and money (13.4%), arts and entertainment (10.9%), features (10.7%), U.S. national news (10.2%), technology and science (7%), world news (6.1%), politics (5.4%), weather (3.6%). Only 16.3%

of all people studied visited a news story about politics over the two-month study period, compared to 17.4% for world news, 29.8% for U.S. national news, 21.2% for arts and entertainment and 29.2% for sports. Overall, what the actual online viewing data showed in Tewksbury's (2003) study was a starkly different picture to the survey responses. Not only were politics and international affairs not the top two news categories for online readers, readers visited these types of stories with nowhere near the reported frequency – 67.5% said they followed national politics closely, but in the two-month research period, only 16.3% of people clicked on a story about politics. Instead, pageviews skewed heavily towards sports, arts and entertainment, general U.S. national news and news about business and money.

The results of this study, however, may have been affected by the time period in which it took place. Being a study based on data from 2000, this saw the majority of people (54.1%) only visit a news site on one day over a two-month period. Data was likely to be somewhat skewed by early-adopters and online news enthusiasts who gravitated towards sports and business coverage. Nevertheless, "[t]he chief conclusion one may take away from this research is that online news readers do not select public affairs content as often as they select other news content" (Tewksbury, 2003, p. 705).

Hamilton (2004), in a survey of consumers' online news interests, found that consumers were interested in news about the weather (1) most. The next most-favoured topic was science and health (2), followed by technology (3), business (4), international news (5), entertainment (6), sports (7), politics (8) and local news (9). Hamilton (2004) observed that, based on the data, "[n]ews one can use in everyday life tops the interests of online consumers" (p. 195). Breaking preferences down by gender differences, Hamilton (2004) noted that men read more sports news as well as technology, politics and international news than women. Women read more entertainment news, as did young people. Women also tended to follow science and health news more closely. In terms of age, the news interests of young people skewed towards non-public affairs topics, but interest in politics remained evenly low across ages – apart from a spike in interest among men 35-49.

This online consumption data came from survey responses, however, and thus there is consistency between these online observations and offline trends observed in the previous section. Entertainment and sports news ranked low overall with consumers in Hamilton's analysis, while business and international news ranked relatively high. Such findings may be linked to the method of data collection employed. Indeed, Hamilton's (2004) findings contrast with the findings of Tewksbury (2003) and the findings of Boczkowski (2010a). These latter academics used methods to assess consumer news selections that were not reliant on survey responses, leading to different results. Boczkowski (2010a), for example, using publicly-available online lists of 'most viewed' and 'most clicked' stories, discovered that "Non-public affairs stories – in particular sports, crime and celebrity subjects – are substantively more popular than public affairs news among online news consumers" (p. 146). Thus methodology may be behind contrasting findings. Studies which have used content analysis, in particular,

have come to consistent conclusions about the news preferences of consumers, perhaps revealing the reliability of this approach.

Indeed the finding from Boczkowski (2010a) noted above was subsequently backed up by a range of studies he co-authored and which focused on the news interests of consumers in the United States, South America and Western Europe. These replication studies again assessed the nature of consumer news selections by looking at publicly-available lists of 'most read' or 'most popular' stories on various news websites, employing a content analysis methodology. They all came to similar conclusions.

Again, Boczkowski's (2010a) first study in Argentina found the stories clicked on most by consumers centred on non-public affairs news, particularly sports – both on weekdays and during weekends when interest jumped significantly. On two of the sites studied, that interest in sports was followed by consumer interest in entertainment/arts/culture news, crime and science/technology/medicine news. On the third site studied – one with a target audience of wealthier, conservative Argentinians – politics ranked second as the most popular news category. The findings therefore showed some differences between sites with contrasting target audiences, indicating the relevance of audience demographics to news selections. A site targeted at wealthier and politically conservative consumers attracted people who were more interested in political news, while tabloid outlets attracted readers who were more interested in entertainment than politics or foreign affairs. Overall, however, there was a focus across sites on non-public affairs news.

In many ways it can be seen that readership tracks with coverage and that this feeds into the data. The less public affairs news put on display for consumers, the less public affairs news that is read. Such an observation may seem intuitive, but readership data nevertheless lends support to this fact. A similar finding related to site-based differences noted above came from a comparison of Washington Post readership with the readership trends of other less politically-focused sites (Boczkowski, Mitchelstein, & Walter, 2012). The Washington Post's strong reputation for political coverage, the high volume of political coverage on the site and the politically-engaged character of the outlet's target audience led to higher levels of public affairs news selections compared to generalist news outlets. As Tewksbury and Rittenberg note (2015), readership is always likely to be linked with coverage. The target audience of a site is also a relevant factor in shaping the type of reader who browses a particular website, they note.

Indeed, Boczkowski, Mitchelstein and Walter (2011), in a later study, observed that if consumers of news in Western Europe and Latin America (predominantly interested in non-public affairs news) were to be shown more non-public affairs stories and less public affairs stories on website homepages, they might have chosen an even lower proportion of public affairs news. This indicates that journalistic selections (and news placement) do have an impact on consumer news selections, with the consistent supply of public affairs news encouraging more consumer selections of public affairs stories than might otherwise be the case. But again,

as noted, consumers do express agency in their news selections and tend to read the news stories that interest them most, not being influenced wholly by journalistic selections and story placements (Boczkowski, 2010a). This is perhaps why consumer selections have consistently focused on non-public affairs news.

Overall, it has been observed that consumers in North America, South America and Western Europe have a preference for non-public affairs news (Boczkowski, 2010a; Boczkowski, Mitchelstein, & Walter, 2011; Boczkowski, Mitchelstein, & Walter, 2012; Boczkowski & Peer, 2011; Boczkowski & Mitchelstein, 2010). These findings have all been based on an analysis of publicly-available 'most read' or 'most clicked' lists on various news websites, with some adding qualitative data from interviews with consumers. Boczkowski, Mitchelstein and Walter (2011) note that despite some differences between particular news websites, there is a general trend among consumers towards the selection of non-public affairs news. This trend cuts across geographic boundaries and the ideological positions of news outlets, they note.

Consumer interests, however, can shift with changes in context. Boczkowski (2010a) has observed differences in consumer selections between weekends and weekdays. Interest in sports news, in particular, increases on the weekend because this is when large sporting matches occur. Elections, political protests and other events that arouse political interest can also change news selections behaviour, increasing consumer interest in public affairs (Boczkowski, Mitchelstein, & Walter, 2012; Boczkowski & Mitchelstein, 2010; Boczkowski & Mitchelstein, 2013). Boczkowski, Mitchelstein and Walter (2012), for example, observed that heightened political activity closed and in some cases reversed the gap between the news interests of journalists and consumers. This finding led the authors to argue that consumers act as 'monitorial citizens', meaning they tune in and out of politics depending on the context. As issues become more or less salient and as the importance of engaging with the political process increases (i.e. around election time) consumers choose to engage with public affairs news. The issue that remains, however, is that once these periods of heightened political activity end, consumers reset to their default mode, switching off to public affairs news (Boczkowski, Mitchelstein, & Walter, 2012; Boczkowski & Mitchelstein, 2013). Thus, despite some shifts in consumer interests – as a result of contextual changes – the news preferences of consumers remain focused on non-public affairs news.

Topic-wise, Boczkowski and Mitchelstein (2013) note that the public are largely interested in sports, crime, entertainment and the weather. This finding lends support to Tewksbury's (2003) early observations about consumers. These findings are further supported by Singer (2011), who notes that online news readers in the United Kingdom are largely click on stories about sports, crime, sex and the unusual.

One study that contrasts with these was conducted by Curtain, Dougall and Mersey (2007). Using the same methodology as the Boczkowski co-authored literature, the authors found that the most-viewed articles on Yahoo! News consisted mainly of national news/politics and world

news stories. These two topics made up 52.8% of all 'most viewed' stories in the period of study. That interest in national and world affairs was followed, however, by an interest in entertainment and odd news that outstripped the prominence given to those topics by journalists. Interestingly, sports ranked last in the list of 'most viewed' topics – perhaps, the authors note, because Yahoo! News is an internet portal lacking a reputation for sports coverage. Indeed, the news content of the site was largely made up of wire copy and articles from the Christian Science Monitor and USA Today, meaning it leaned towards world and national news. This mix of content likely shaped the news selections of consumers.

Curtain, Dougall and Mersey (2007), overall, found that the reader's top stories "more often contained hard news values" (p. 27), meaning consumers chose stories that reflected the values of importance, impact, timeliness and conflict. Nevertheless, despite the strong interest shown in national and world affairs, the authors noted that the interests of consumers still diverged from the interests of journalists, especially regarding the importance placed on world news (43.9% of journalists' top stories were world news, compared to 22.5% for consumers). Consumer interest in entertainment and odd news was double that of journalists. The authors generally concluded:

The study suggests that users, when given the choice, access more entertainment and off news than they might find in their daily paper on any given day. The findings also demonstrate, however, that users also want mainly hard news on important topics, particularly national/political and world news. (Curtain, Dougall, & Mersey, 2007, p. 31).

Behaviourally, the authors noted that consumers showed "active news seeking behaviour" (p. 32), going beyond the recommendations of journalists to seek out the news they wanted to read. The authors also reasoned that uses and gratifications theory was also supported by the reading behaviour they recorded, with consumers going to Yahoo! News for entertainment as well as information, depending on the context.

Again, context is relevant as Tenenboim and Cohen's (2015) findings indicate. The authors, studying the most-clicked stories on an Israeli news site, discovered that "news consumers favour public affairs content over the non-public affairs stories" (p. 212). This finding, however, was noted as being highly contextual, rooted in the fact that Israel is a conflicted society with major political and social issues.

Broadly, what the results of the various studies show that there is variability between different news sites in terms of their target audiences and that these differences filter into news selection data. Beyond target audience, as noted in the previous section, actual audience demographics, consumer motivations, the commercial orientation and organisational goals of news sites, as well as geographic location, also influence consumer selections (Thorson, 2008; Hamilton, 2004; Bastos & Zago, 2013; Lischka, 2014; Tewksbury & Rittenberg, 2015; Tenenboim &

Cohen, 2015). This is because consumer selections exist within a feedback loop of influences (Tewksbury & Rittenberg, 2015). These factors and influences foster differences in findings.

However, despite the existence of these differences, Boczkowski and Mitchelstein (2013) emphasise that there is a significant gap between the supply and demand of news. Journalists supply a diet of news consisting mostly of public affairs, while consumers demand a diet of news consisting mostly of non-public affairs stories.

2.3.4 Conclusions about consumer news selections

Overall, consumers have consistently expressed a strong interest in soft and non-public affairs news across a range of studies. More often than not, consumers take in a news diet that consists largely of sports, crime, entertainment, health, weather and technology news. These interests can and do shift, however, depending on the political context and on the news outlet being studied. There is also some variation between weekends and weekdays.

Further, site reputation and orientation can play key roles, with sites dedicated to political coverage (such as the Washington Post) drawing in politically-interested consumers. Generalist news sites, on the other hand, attract consumers less interested in politics. In many ways, consumer interests can be linked to proportions of coverage, as well as news outlet reputation (Boczkowski, Mitchelstein & Walter, 2011; Boczkowski & Mitchelstein, 2010). Consumers also vary somewhat in their interests by demographic, with divisions between the interests of men and women as well as older and younger consumers.

In terms of consumer agency, Curtain, Dougall and Mersey (2007) and Boczkowski (2010a) note that consumers seek out their own diet of news. Indeed, it appears from the literature that consumers engage with the news that is relevant to them on a personal level and which can be useful in some way. In this regard, uses and gratifications theory is supported. The evidence above indicates people read news for enjoyment as much as they do to get information about the world they live in. Consumers across studies also show agency and a willingness to ignore the content preferences of journalists, instead deciding to read news topics that are on their own agendas. This sees consumers engaging with lighter topics despite journalists offering them a diet of public affairs stories. Further, this opens up a gap between the news interests of journalists and consumers. The gap is consistent across geographic boundaries and it cuts across the different ideological stances of news outlets. In the United States, South America and Western Europe, consumers show greater interest in sports, crime, entertainment and weather than journalists do. They do not read as much public affairs news as journalists offer them.

This low interest in public affairs news is perhaps not surprising. While it could be argued that the abundance of information available online opens up the theoretical possibility of people becoming more informed and more engaged, Prior (2005) argues that greater media choice

makes it easier for people to find and select their preferred news content. Instead of engaging more with political information, technology enables avoidance and Prior notes that people's lack of motivation to engage with public affairs content leads to a larger divide between the politically-interested and the politically-uninterested.

2.4 Context: The relationship between news selections in 2015

The discussion above serves to show somewhat of a disparity between the news interests of journalists and consumers. Journalists have been seen to largely favour hard and public affairs news (though the amount of soft news on offer is increasing), while consumers have been seen to largely favour soft and non-public affairs news.

This disparity between news preferences is important because it has the potential to impact on journalistic news selections, in particular. Indeed, in the context of 2015, where revenue from traditional sources is depleting and audiences are harder to amass, news outlets facing such difficulties are incentivised to change their editorial behaviour and follow consumer interests.

Thus, there is a close relationship between the online news selections of journalists and consumers in 2015 that is underscored by the influence of economic pressures and driven by technological change. Indeed, importantly, the tracking of consumer interests is enabled by the ready availability of tools such as Chartbeat which can map consumer clicks online in real time. Pressure to increase website traffic, profits and overall journalistic performance has led to the injection of consumer interests – communicated via these tools – directly into the newsroom (Vu, 2014; Tandoc, 2014) and the availability of this technology has already see journalists increasingly making decisions based on web traffic (Anderson, 2011; Bright & Nicholls, 2014; Vu, 2014; Tandoc, 2014). As a result of this technological influence, popular stories are promoted to prominent positions on news homepages and kept there longer to generate web traffic (Bright & Nicholls, 2014; Lee, Lewis, & Powers, 2014). The use of this technology is also arguably a contributing factor in the trend towards increasingly consumer-centred news – news that focuses on soft news topics such as crime, entertainment, scandal, celebrity and sports (Tandoc, 2014).

This observed change in journalistic behaviour highlights a potential shift in gatekeeping power away from journalists to consumers and the 'audience agenda' (Vu, 2014; Tandoc, 2014). Where journalists once controlled the flow of information to the public – ignoring consumer preferences, as per Gans' account (1979) – now consumers are having a say about what news gets produced (Anderson, 2011a). There exists a tension between traditional journalistic values – that desire to produce public interest journalism – and the non-public affairs interests of an empowered, active and quantifiable audience (Boczkowski & Mitchelstein, 2010; Anderson, 2011; MacGregor, 2007).

Indeed, Boczkowski and Mitchelstein (2013) see journalists wanting to fulfil their “occupational duty” while at the same time having “a desire to increase public appeal” (p. 433). As Boczkowski (2010a) observes, regarding the availability of readership data,

[Journalists] point to one of the major consequences of this increased visibility of consumption preferences in daily editorial practice, in particular for those who produce public affairs content: it intensifies a pre-existing tension between the logic of the occupation and the logic of the market. The first underscores the greater importance of stories about politics, economics, and international affairs, whereas the latter privileges the more popular topics of sports, entertainment and crime. (pp. 146-147).

This tension is important to consider because of the noted potential consequences for news content. A push towards the interests of consumers means the provision of more soft news. Again, this consumer influence is underscored by economic and organisational strains on journalists (Vu, 2014; Anderson, 2011; Schlesinger & Doyle, 2015).

In New Zealand, the Herald arguably faces the same pressures and has the same incentives as other news outlets facing down the ‘audience agenda’. In this context, it is important to look at how the political-economic factors noted above might influence news content on nzherald.co.nz. It is possible that commercial imperatives and the influence of technology are driving content towards the lowest common denominator. They may be underpinning a soft news agenda that sees journalists abandoning professional values. It may be in New Zealand that public affairs news is nowhere to be seen and that, in this regard, journalists might be failing in what many people see to be their duty to inform the citizenry. These are possibilities this study seeks to explore.

2.5 Space for new research

Overall, as can be seen in the literature review above, few comparative analyses of online news selections have actually been performed. While many content analysis studies have looked into the news selections of journalists on their own, few have looked at these selections in comparison to those of consumers. Fewer still have considered these news selections in the online context. No studies of this kind appear to have been done in New Zealand.

This study looks to address these gaps by exploring the thematic nature of both journalistic and consumer online news selections. Bases will be covered also by assessing the thematic nature of selections both in terms of specific news topics (i.e. sports, crime, weather) and news focus (i.e. public affairs, non-public affairs). Doing so will allow for comparison with the limited number of previous online news selection studies.

Correlations between journalistic and consumer selections have also been absent from the literature. Comparisons of selections have been made in the Boczkowski co-authored studies in terms of frequency distributions, but correlations between variables have not always been performed. In this regard, this study will look at how journalistic and consumer news selections compare with one another, both in terms of the frequency of story matching (i.e. how often journalists and consumers choose the same top stories) and the correlation between journalistic homepage rankings and consumer clicks. Doing so will address a gap in the literature.

Another gap in the literature this study seeks to address is the role of time in news selections. Some online comparative studies have considered the influence of time on news selections at a macro level (week to week or between election and non-election years), but none have considered the influence of time on a micro level (hour to hour, across a day). There are some indications that levels of soft and hard news are different at particular points during the day (Hamilton, 2004, p. 143), but this proposition has not been explored in any depth. This is a gap in the research that this study will attempt to address by comparing the news selections of journalists and consumers in New Zealand on a micro level.

In this regard, this study will take into consideration the various hour-by-hour decisions made by journalists that result in online news stories having liquidity and a high turnover rate (Karlsson & Stromback, 2010; Karlsson, 2012). The liquidity of news and the pressure put on journalists to be constantly producing new content throughout a 24-hour news cycle (Schlesinger & Doyle, 2015; Boczkowski, 2010a) may result in a particular pattern of news selections among journalists.

This study will also consider, to some extent, the impact that wide access to high-speed internet connections and the increasing level of engagement with mobile technology among consumers has on news consumption. Particularly in relation to consumers, this technology has the potential to change the nature of news readership in terms of its time and space dimensions. Where news may have once been predominantly consumed in the morning at home and at work (the morning paper) or in the evening at home (the 6pm television news), there is now the opportunity to read online news anywhere at any time with ease (Doyle, 2014; Boczkowski, 2010b). This may result in a particular pattern of consumption – a pattern which can be assessed with micro-level data analysis.

Overall, research into news selections (by journalists and consumers) throughout the day may reveal some interesting patterns about news consumption, showing what types of news stories journalists and consumers are most interested in and when. It may also shed some light on the micro-level influence of audience analytics on journalistic news selections, with studies indicating that real-time information about consumer clicks is influencing journalistic decision-making, prompting journalists to follow consumer preferences (Lee, Lewis, & Powers, 2014; Anderson, 2011a; Vu, 2014; Tandoc, 2014). Looking at how closely the news selections of journalists and consumers match up with one another at particular points in time may therefore

reveal a meaningful pattern and shed light on the possibility that journalists are, in fact, following the 'audience agenda'.

The Herald will be used as a case study to explore online news selections in New Zealand. In that regard, it is important to consider the specific context of the Herald and nzherald.co.nz and the various political-economic influences on the news outlet that might shape its news content and the relationship between journalists and consumers.

2.6 Context: The Herald and nzherald.co.nz

This overview of the Herald begins with a brief history of the news outlet before turning to address the range of political-economic pressures on nzherald.co.nz and the impacts these pressures may have on news content (as well as the relationship between journalistic and consumer news selections).

The pressures this overview will consider include financialised ownership, increased focus on consumers, declining paper circulation and shifts in advertising spending – all in the context of declining revenue. In this regard, it will be argued that economic pressures are likely to have a large impact on content. The influence of technology will also be considered.

At the outset, it can be generally argued that the Herald is being increasingly commercialised and oriented towards boosting audience numbers and advertising revenue (Myllylahti, 2015). The potential result of this commercial orientation is the promotion of more soft and non-public affairs news on the nzherald.co.nz website. The following review of the Herald will address this.

A. History

The New Zealand Herald has had a long history marked by two important phases of ownership. The first phase of ownership saw the news outlet controlled and operated by New Zealanders. The Herald was started as a newspaper in 1863 by W.C. Wilson – who in 1876 entered a partnership with Alfred Horton – and the paper was New Zealand-owned for the majority of its history under the company Wilson & Horton (Hastings, 2013; Ovens & Tucker, 1999; Rosenberg, 2002). The paper's ownership by Wilson & Horton continued through the early 20th century, with Wilson & Horton acquiring other newspapers along the way, eventually seeing the company becoming one of only two major companies to dominate the New Zealand newspaper landscape (McGregor, 1992; Norris, 2002; Cocker, 2006).

New Zealand ownership continued until Wilson & Horton was bought out by the Irish newspaper group Independent Newspaper Plc (INP) in a corporate raid between 1995 and 1998 (Rosenberg, 2002). In 2001, INP sold its shareholding to Australian-based APN News & Media (APN) and since then the Herald has been owned by the company (Myllylahti, 2015). This

second phase of ownership is marked by overseas corporate control and the financialisation of the business. This will be addressed in the next section.

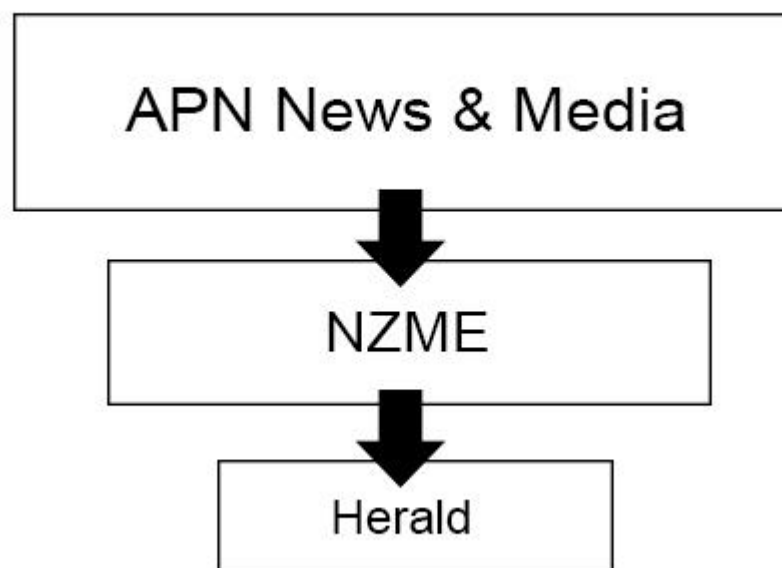
In terms of the outlet's digital presence, the Herald entered the online world in 1998. Since then, the Herald's site – nzherald.co.nz – has grown to become to the second-most visited news site in New Zealand behind the stuff.co.nz news website run by competitor Fairfax (Fahy, 2013; Myllylahti, 2015). The Herald newspaper and nzherald.co.nz share a newsroom, journalistic resources and share content, making them closely linked.

B. Financialised ownership, commercial focus

Ownership structure is important to understanding the Herald and its journalism. It arguably informs the outlet's content through an emphasis on commercialism. Financialised ownership, in particular, drives this commercial orientation and increases the likelihood of profit-driven soft news being produced and disseminated (Beam, 2003; Myllylahti, 2013).

As noted, the Herald is owned by the Australian-based APN News & Media. However, this ownership, as of late 2014, is now through APN's New Zealand subsidiary NZME. Indeed, in this regard, the Herald and nzherald.co.nz have been caught up amongst corporate restructuring, rebranding and redirection in recent years. The New Zealand arm of APN and The Radio Network – which includes the Herald, along with a raft of newspapers, websites and radio stations – were combined and rebranded in 2014 as NZME ("APN NZ rebrands under NZME", 2014). This means, as of late 2015-early 2016, the Herald's ownership structure looks generally as follows:

Figure 1: Herald ownership structure



With this restructuring came the appointment of NZME CEO Jane Hastings and a number of new corporate leaders who enacted a more consumer-focused, cross-platform media strategy (“NZME makes commercial leadership changes”, 2015; Cheng, 2015b; Venuto, 2014b). Hastings says of the restructuring and rebranding of APN’s New Zealand assets that, “As we merge three great businesses into one integrated media and entertainment business, we are ensuring that we have the people in place to commercialise the audience numbers that our news, sport and entertainment content is attracting” (“NZME makes commercial leadership changes”, 2015, para. 12).

This focus on appealing to, commercialising and selling audiences is apparent in many of the statements made by Hastings. She adds that “We [NZME] are a customer focussed business” (Cheng, 2015a), and that “We are about selling audiences – leveraging the power of the many channels that we can connect with these audiences and delivering results for our clients” (“NZME makes commercial leadership changes”, 2015, para. 4). The ‘ME’ in NZME, say says, represents the company’s increased focus on consumers (“APN NZ rebrands under NZME”, 2014) and she notes that “a critical area of our business...is focused on how we commercialise our specialist content including business, sport, entertainment, food and lifestyle across all platforms” (“NZME makes commercial leadership changes”, 2015, para. 7). The Herald and nzherald.co.nz are among the brands Hastings is referring to in these statements about NZME’s focus. They serve to underscore the increased commercial orientation of the Herald and highlight the impacts of financialised ownership.

Indeed, regarding APN, the Herald and NZME’s parent company, the Australian corporate is now majority-owned by financial institutions, many of which are listed on the stock market (Myllylahti, 2015). This type of financialised ownership – combined with a commercial orientation, rather than a public service orientation – has particular consequences for news content. Myllylahti (2015) writes that “the financialised ownership of media companies has increased profit imperatives, and this is most certainly the case for APN” (p. 25). Hope and Myllylahti (2013) argue that non-media shareholders have different interests and motivations than do owners traditionally invested in the media industry. Such shareholders prioritise short-term profits over long-term media interests such as maintaining journalistic staff, reach of coverage and quality of reporting (Hope & Myllylahti, 2013; Hirsch & Thompson, 1994; Myllylahti, 2013). Under such financialised ownership, media content is therefore likely to become softer because such content is cheaper, easier to produce and likely to sell (Beam, 2003; Hamilton, 2004). As Myllylahti (2013) summarises,

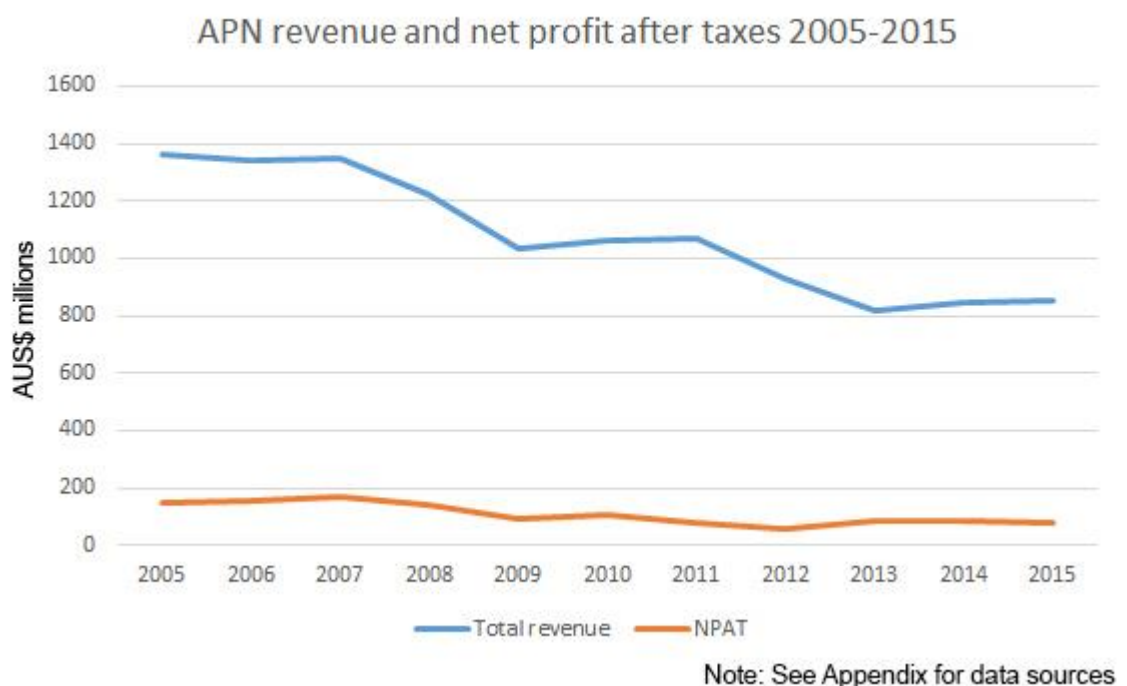
Financial ownership has brought an exclusive focus upon revenue streams and profit rates. This shift has increased commercial pressures within media companies. Instead of concentrating on public interest stories, main media outlets produce even more commercially driven content. There is an urgency to maximise page views and clicks for the online stories in order to attract advertisers. (Myllylahti, 2013, pp. 41-42).

C. Focus on arresting revenue declines

As noted, The Herald is under financialised ownership and has found itself in the middle of a corporate restructuring of APN's New Zealand operations. Behind the amalgamation of APN New Zealand's online, radio and print businesses into NZME is a focus on increasing audience numbers, audience engagement and advertising revenue ("NZME makes commercial leadership changes", 2015). This is arguably part of a move to improve the overall health of the business, which has seen revenue decline over the past decade.

Indeed, APN, NZME and the Herald's parent company, has seen marked declines in revenue and profits. The company saw a net profit after tax (NPAT) of AUS\$149.6 million in 2005, compared to an NPAT of AUS\$103 million in 2010 and AUS\$76 million in 2015 (APN, 2005; APN, 2010; APN, 2015). Over the same 2005-2015 period, total revenue decreased from AUS\$1.364 billion to AUS\$850 million (APN, 2005; APN, 2015). Additionally, the company saw statutory net losses of AUS\$24 million in 2008, AUS\$45 million in 2011 and \$456 million in 2012 (APN, 2008; APN 2011; APN, 2012). Figure 2 shows the decline in APN's revenue and NPAT from 2005 to 2015.

Figure 2: APN revenue and net profit after taxes 2005-2015

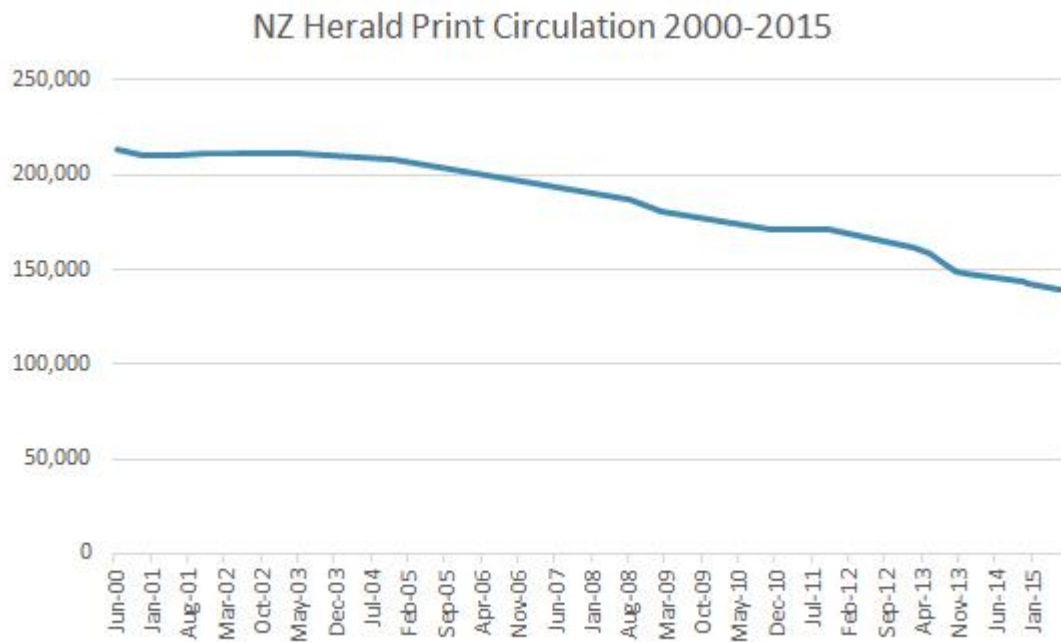


These revenue and profit declines for APN are arguably a consequence of declining newspaper circulation and a shift in advertising spending to the online realm. The Herald has felt the impact of both and there are arguably consequences for news as a result of a drive towards stabilising and increasing these profits. Each potential economic influence on news content and journalistic behaviour/decision-making will be considered in turn.

Declining newspaper circulation and revenue

The Herald's print circulation has been in steady decline since 2000, with daily circulation numbers dropping from 213,334 in June, 2000, to 139,209 in June, 2015 – a loss of 74,125 papers ("Herald sales buck trend", 2000; Venuto, 2015b). Daily readership has also fallen from 552,000 in February, 2002, to 475,000 in February, 2014 ("Herald driving growth in newspaper readership", 2002; Venuto, 2014a). Figure 3 shows the downward trend in the Herald's daily paper circulation from 2000 to 2015.

Figure 3: NZ Herald print circulation 2000-2015



This declining circulation means declining revenue from newspaper sales and as Ahmed (2013) notes, this is a major concern for news outlets: "Of primary concern to the still predominantly print-based newspaper industry is the trend of consumers getting their current affairs fix for free online, which is increasingly rendering those paid-for print products superfluous" (para. 2).

Ahmed (2013) observes that declines in revenue from drops in circulation are having tangible impacts on journalism, pointing out that "an exodus of readers from print to online is manifesting itself in major job cuts, massive drops in stock price and restructurings here and abroad" (para. 1) because "with fewer eyeballs in print comes smaller revenues from circulation and advertising" (para. 2). The Herald has felt the impact of such changes, with job cuts and large-scale restructuring occurring (Myllylahti, 2013; Goetze, 2015).

In this context of cost-cutting, news content is also impacted. Hannis et al. (2014) records complaints from New Zealand journalists that cost-cutting is "undermining the quality of journalism" and fuelling "a focus on trivial stories and reproducing public relations hand-outs" (p. 17). Further complaints from New Zealand journalists have centred around the idea that news is

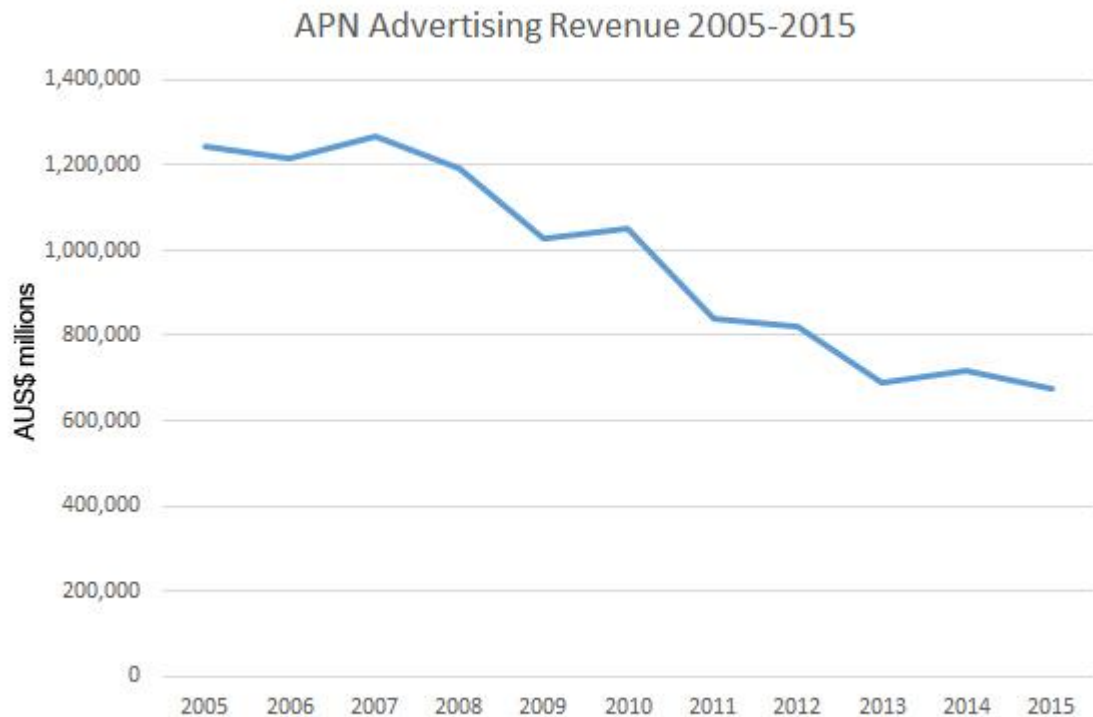
“too productivity-driven”, that is has been “captured by trivia”, and that there is “increased focus on popular, quick turnaround stories” (Hannis et al., 2014, p. 17). There is the potential that news at the Herald is the same, given the commercial pressures.

Shifts in advertising spending

Newspapers have seen a dramatic decline in advertising spending over recent years. While specific figures for the Herald are not available, Advertising Standards Authority figures show New Zealand ad industry spending on newspaper advertising decreased from \$830 million in 2005 to \$484 million in 2014 – a decline of \$346 million or 58% (Advertising Standards Authority, 2013; 2015). NZME, part of a “duopoly in New Zealand’s print newspaper market” (Myllylahti, 2015, p. 10), stood to bear a substantial portion of this \$346 million loss. In fact, this sharp drop in advertising revenue forced APN, in August 2011, to write down the value of the Herald newspaper by 20 per cent “due to tough advertising and circulation conditions” (Fahy, 2012, para. 17).

APN chairman Peter Cosgrove noted in the company’s 2012 annual report that “weak advertising markets” had contributed to a “decline in publishing revenue” and that he intended to offset losses by repositioning the company (APN, 2012, p.4). The company noted that “deteriorating advertising markets had a substantial effect on [Australia Regional Media] revenue” (p. 7). Indeed, looking at APN’s financial reports, income from advertising decreased from AUS\$1.2 billion in 2005 to AUS\$677 million in 2015 (APN, 2006; APN, 2015). Figure 4 shows the decline in advertising revenue for APN across its holdings in Australia and New Zealand from 2005-2015.

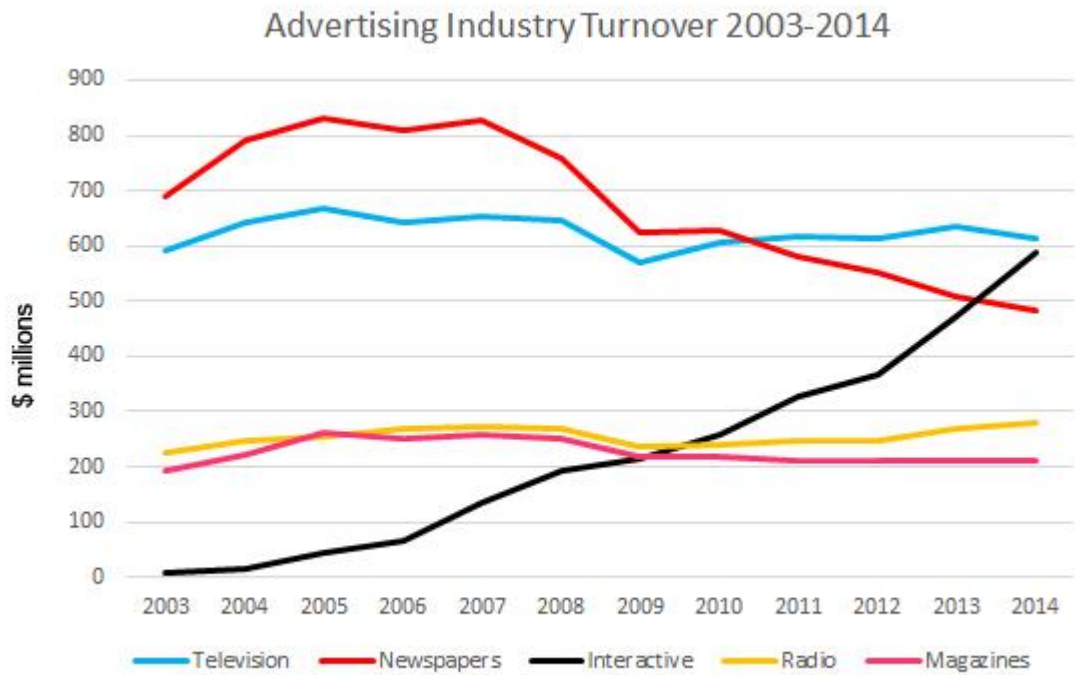
Figure 4: APN advertising revenue 2005-2015



Note: See Appendix for data sources

Amidst this ad revenue decline, New Zealand ad industry turnover for interactive advertising – which includes online advertising and classifieds – increased significantly from \$8 million in 2003 to \$589 million in 2014 (Advertising Standards Authority, 2015; Advertising Standards Authority, 2013). Interactive advertising spending now rivals spending on television. It is the second-largest advertising market in New Zealand, with a 24.7% market share in 2014 (Advertising Standards Authority, 2015). Newspapers, in comparison, had a 20.3% share of the market in 2014 (Advertising Standards Authority, 2015). Figure 5 shows trends in advertising industry turnover between 2003 and 2015.

Figure 5: Advertising industry turnover 2003-2014



Note: See Appendix for data sources

Nevertheless, while online advertising spending has increased, it does not mean news sites such as nzherald.co.nz have reaped all the benefits. In the context of these digital advertising spending increases, APN did see its digital revenue grow 11% in 2014 (APN, 2014). Proportionally, however, this digital revenue only represented 7% of total revenue brought in over the year (APN, 2014). Further, figures show that Google and Facebook dominate the online advertising market in New Zealand, together taking in 53.7% of all online advertising revenue (O'Sullivan, 2016). NZME, in comparison, has only a 6% share in the digital advertising market, drawing in \$10.8 million in revenue in 2015 (Underhill, 2016).

In this regard, increases in online advertising revenue are unlikely to be offsetting print advertising losses for the Herald. Indeed, Standard Media Index data (which measures ad spending by major agencies in New Zealand) shows APN lost \$9.2 million in print advertising revenue from major agencies in 2012 and only gained \$490,000 online (Fahy, 2014). This mirrors trends in the United States which show newspapers losing significant amounts of revenue as readers shift from print to online, with gains not offsetting losses (Pew Research Center, 2012b).

Thus, overall, while nzherald.co.nz does have an estimated 42% market share when it comes to online news (Myllylahti, 2014), the fragmented and competitive world of online advertising sees it fighting to compete for revenue with Google and Facebook. A total revenue intake of \$10.8 million for NZME in 2015 does little to offset the print revenue losses noted above. In sum, as Ahmed (2013), notes:

The conundrum for publishers is the money being made online is still chump-change compared to what was being made in the days when old media's rivers of gold were flowing...In New Zealand, newspapers have lost almost \$300 million of advertising revenue since 2007 and while newspaper sites can count online advertising as a new revenue stream, a Pew Research Center study released last year showed US newspapers are losing US\$16 in print revenue for every US\$1 of digital they gain. (para. 3)

The same scenario appears to be playing out in New Zealand. In this context, there is an incentive to appeal to advertisers (while also appealing to a wide audience) in order to attract more revenue.

Statements from Herald management are indicative of the importance of advertiser interests to the newspaper and website. Herald editor Shayne Currie says changes to the Herald's operations have been designed, in part, to increase the attractiveness of the paper to advertisers ("APN christens its multimedia beast NZME", 2014). "We stay in touch with what our readers need and evolve as they do," Currie says, adding, "They and our advertisers can expect a bolder, brighter paper, with journalism that's even more engaging, relevant and important" (para. 14). Meanwhile, CEO Jane Hastings has placed continued emphasis on the importance of leveraging large audiences across multiple platforms to "more effectively connect advertisers with audiences across the country" ("APN christens its multimedia beast NZME", 2014, para. 9). Again, she states that NZME is about "selling audiences – leveraging the power of the many channels that we can connect with these audiences and delivering results for our clients" ("NZME makes commercial leadership changes", 2015, para. 4).

Rosenberg (2008) argues that corporate pressures and associated cost-cutting measures – of the kind experienced by the Herald – intensify the commercialisation of news media, leading to "greater homogenisation and more focus on advertisers' needs rather than those of readers" (p. 207). A focus on advertiser interests entails the privileging of certain news stories and topics over others. Advertisers, in general, prefer to have their ads appear next to soft news content that puts consumers in a buying mood (Hamilton, 2004; Herman & Chomsky, 2002). In this regard, the dissemination of soft news on nzherald.co.nz is encouraged.

As a side note to this, advertising rates for various sections of the website may reveal something about advertiser interests and the likelihood of soft news being privileged on nzherald.co.nz. Figures from the Herald show that the Business section of nzherald.co.nz is the most lucrative for the site in terms of advertising dollars. Advertising charges (as Cost Per Thousand impressions (CPM)) for various sections of the site are as follows:

Table 1: Advertising rates for nzherald.co.nz

Ad type	Run of site	Homepage	National	Business	Sports	Life & Style	World	Technology	Travel	Property	Entertainment
Big Banner CPM	\$15		\$25	\$40	\$20	\$30	\$20	\$40	\$60	\$40	\$30
Rectangle CPM	\$15	\$25	\$25	\$40	\$20	\$30	\$20	\$40	\$60	\$40	\$30
Half Page Digital CPM	\$30		\$35	\$60	\$30	\$45	\$30	\$60	\$80	\$60	\$45
Mobile Banner CPM	\$40		\$40	\$40	\$40	\$40	\$40				\$40
iPad App Panel CPM	\$60		\$60	\$60	\$60	\$60	\$60				\$60
Billboard (Daily Buy)		\$30,000	\$18,000	\$11,780	\$10,000	\$5,000	\$6,820	\$1,860	\$2,500		\$8,000
Over The Page (Daily Buy)		\$40,000	\$39,000	\$12,000	\$9,600	\$5,000	\$6,600	\$2,500	\$3,000		\$8,000
Full Section Take-Over (Daily Buy)		\$36,000	\$22,000	\$16,000	\$13,000	\$7,000	\$8,800	\$3,500	\$2,500		\$10,000

Note: See Appendix for data sources

Given these rates, one might expect to see nzherald.co.nz encouraging its readers to visit the business, entertainment and life and style sections above all because these sections have the highest CPMs. The more visitors to these sections of the site, the more money nzherald.co.nz generates, providing an incentive to push this content on the homepage.

D. Increased focus on web traffic, consumers

One potential solution to these financial problems, as noted, is to place focus on consumer preferences and expand the size of the online audience and in order to generate sufficient advertising revenue.

In this regard, the Herald has a digital-first strategy in place that prioritises the nzherald.co.nz website and which supports NZME's strategy to grow online revenue (Myllylahti, 2015; Cheng, 2015b; "NZME makes commercial leadership changes", 2015; Underhill, 2016). Managing editor Shayne Currie says the outlet is digital-focused and look to serve "rapidly growing mobile audiences" (Cheng, 2015b). NZME director of group transformation Sarah Judkins says the company wants to be "future-focused, in tune with our audience, with what New Zealanders want and what's going on" (Goetze, 2015, para. 5).

Online audiences for the Herald, in light of this digital-focused strategy, have increased over recent years. The Herald's combined daily audience (across the paper and nzherald.co.nz) increased from 790,000 in October, 2011, to 844,000 in November, 2014 ("Herald reaches 1.3m readers in print and online formats", 2011; "More eyes on the Herald as readership rises to 844,000 a day", 2014). Monthly unique viewers for nzherald.co.nz increased from 986,000 in April 2013 to 1,211,000 in April 2014 (Goetze, 2014a). In 2015, NZME reported the Herald's monthly digital audience as 1,388,000 (Myllylahti, 2015).

The readership of nzherald.co.nz has thus increased while print readership has declined. However, despite this, online readers are less valuable than print readers, meaning continued revenue losses (as noted). Faced with this ongoing problem, there is the incentive to follow consumer behaviour and interests. Appealing to consumers means the potential to expand audience numbers and thereby boost advertising revenue (Hamilton, 2004).

In light of this, the Herald has made use of audience tracking technology to measure, quantify and map consumer behaviour and interests. Specifically, the nzherald.co.nz website uses Chartbeat, an analytics tool which allows for the real-time tracking of audience clicks. As noted above, the use of such tools is influencing how journalists make decisions and is making newsrooms more audience-centric and commercially focused (Vu, 2014; Tandoc, 2014; Anderson, 2011a; Schlesinger & Doyle, 2015). The site also uses comScore to generate reports about readership trends over specified periods of time. Such tools provide information to nzherald.co.nz journalists about click numbers while also giving them insights into consumer behaviour.

The problem that arises, however, is that increased focus on audiences as a result of the influence of this technology has the potential to alter content, pushing journalists towards the dissemination of soft news that is preferred by consumers (Vu, 2014; Tandoc, 2014). Further, with an increased emphasis on clicks, there is the risk that the measure of successful journalism may shift, with stories that attract a lot of traffic starting to be seen as some of journalists' best (Vujanovic, 2011; Singer, 2011). Using clicks as a barometer for success raises potential issues regarding journalistic quality since news which attracts a high volume of traffic may not be the most newsworthy (Bright & Nicholls, 2014). There is the potential for a slide towards populism and lowest common denominator content in a media environment focused on audience numbers and the bottom line (Atkinson, 1994a; Atkinson, 1994b). As Fahy (2013) observes, "Some believe the quest for audience numbers at all costs is a slippery slope for publishers, with all roads leading to link bait and hot babes on the home page, something [Herald rival] Stuff is regularly accused of" (para. 8). Indeed, the Herald's rival news website stuff.co.nz is a more popular website in terms of clicks (Myllylahti, 2015) and if nzherald.co.nz feels the need to emulate stuff's approach in order to compete, this may see more soft news being put on the news menu.

As part of the discussion of appeal to audiences, it is also important to consider the specific makeup of the Herald's audience. In terms of gender, the profile of Herald consumers is split evenly between men (51.52%) and women (48.35%), according to Herald figures ("The New Zealand Herald: Audience Profile", n.d.). In terms of age, the Herald's readership skews towards older people. "Readers tend to be well established, enjoying the strong earning capacity in empty nester households", the Herald notes, with 36.2% of readers being classed as 'empty nesters', 21.93% as adults with older children, 20.48% as adults with young families, 15.06% as independent young adults and 6.34% as dependent children ("The New Zealand Herald: Audience Profile", n.d.). Meanwhile, home owners make up 63.8% of the Herald's readership.

Generally, the demographic profile of Herald readers is that of older, more financially well-off people (both male and female). In fact, the Herald's affluent readership has increased in recent years, "with a 5.3 per cent rise in readers with personal incomes above \$80,000 and 9.1 per cent more above \$100,000 between Q1 2013 and Q1 2014" (Goetze, 2014a, para. 11). Newspaper Publishers' Association editorial director Rick Neville notes that, "People with money are the keenest newspaper buyers and that's one of the arguments publishers have always put to advertisers" (Goetze, 2014a, para. 12). He adds that, "They've got the disposable income and they're more likely to be interested in property, services and products" (Goetze, 2014a, para. 13).

For the website generally and for individual sections, the demographics of Herald readers are detailed in Table 2.

Table 2: NZ Herald audience demographics

Demographic	Herald General	National news	Business	World	Sport	Entertainment	Travel
Female	48.35%	49.29%	38.58%	47.48%	33.02%	54.90%	53.68%
Male	51.52%	50.85%	61.42%	52.52%	67.21%	45.38%	45.96%
Lifestage One – Dependent Children	6.34%	5.41%	2.67%	5.20%	5.62%	4.76%	3.16%
Lifestage Two – Independent Young Adults	15.06%	14.39%	8.61%	13.26%	12.88%	10.64%	11.23%
Lifestage Three – Adults with Young Families	20.48%	19.66%	17.51%	17.95%	19.91%	18.49%	18.60%
Lifestage Four – Adults with Older Children	21.93%	23.08%	24.33%	23.49%	22.25%	23.25%	22.46%
Lifestage Five – Empty Nesters	36.20%	37.46%	46.59%	40.27%	39.34%	43.14%	44.56%
Home Owners	63.80%	64.96%	75.37%	66.44%	65.57%	68.91%	70.18%
Top 3 Socios	59.05%	59.40%	65.88%	60.74%	56.44%	57.98%	63.86%
Top 3 Occupations	22.99%	23.36%	31.75%	24.33%	24.82%	20.73%	23.16%

Note: See Appendix for data sources

This core audience profile suggests that news content might be geared somewhat towards the interests of these older and wealthier consumers, meaning an inclination towards business, property, world, technology and weather news (Hamilton, 2004).

The Herald's focus on expanding its audience, however, might mitigate against this focus on core consumers. The lure of marginal consumers (who add to overall audience numbers) might shift journalistic attention away from the interests of core consumers to the interests of people who prefer softer news (Hamilton, 2004). Consumers with the opposite profile to Herald consumers (younger, less educated, less wealthy) have stronger interest in sports, community news, crime and health news (Hamilton, 2004; Tewksbury & Rittenberg, 2015) and any appeal to these consumers, with the aim of boosting click numbers, might focus on these topics.

Audience numbers for individual sections of the Herald website are also relevant since clicks have the potential to influence journalistic decision-making (Lee, Lewis, & Powers, 2014). Table 3 shows the average monthly audience numbers for various sections of the nzherald.co.nz website between the fourth quarter of 2014 and the third quarter of 2015 (Q4 14 - Q3 15 September):

Table 3: Herald's average monthly audience numbers

Total brand audience	1,818,000
Monthly digital audience	1,388,000
Monthly National news digital audience	860,000
Monthly Sports news digital audience	618,000
Monthly Business news digital audience	589,000
Monthly Entertainment news digital audience	560,000
Monthly Life & Style news digital audience	493,000
Monthly World news digital audience	435,000

These figures show the popularity of national, sports and business coverage among nzherald.co.nz consumers. The popularity of these topics may incentivise Herald journalists to capitalize on consumer interests, with journalists providing consumers with more of what they want in order to increase click numbers and encourage repeat visits to the website. Overall, efforts to expand the Herald's audience base may push the outlet towards the publication of more soft news that appeals to marginal consumers (Hamilton, 2004).

Conclusions

Overall, the Herald is under pressure to perform well in a news media market where revenues are "fragile" and where competition is increasing (Myllylahti, 2015, p. 34). Myllylahti (2015) observes that, "In 2015, New Zealand media companies [are] driving newsroom and other changes to increase their digital and advertising income. Their need to find new revenue sources is clear, and APN [NZME] illustrates the point" (p. 12).

APN's stagnant commercial performance, in particular, has the potential to impact on nzherald.co.nz's news content, as increased focus is put on commercialising content and improving profitability. The Herald is incentivised in difficult conditions to promote or even privilege content which will be profitable. As Hamilton (2004) notes, soft news stories generally tend to be more profitable than hard news stories.

Again, as part of the drive to stabilise and increase profits, there is the incentive to push for more online traffic, appeal to consumers and please advertisers. Such incentives all have potential consequences for news content and journalistic decision-making. There is the possibility that Herald journalists will pay close attention to reader preferences. As a result, given the strong preference consumers have for soft news (as noted in Section 2.3), there is the potential for soft and non-public affairs news stories to form a large proportion of journalistic news selections. Further, the production and dissemination of soft news is incentivised because of the interests of advertisers.

Financialised and commercially-oriented ownership too has consequences. A strong commercial orientation for a news outlet, as Beam (2003) points out, means the likelihood of fewer stories about government and public affairs and more stories about sports and lifestyle. The consequences of commercialism have already been witnessed by New Zealand journalists, with Hannis et al. (2014) noting that they have seen profit-making pressures intensify and an increased emphasis in newsrooms placed on popular (yet trivial) stories. There is the risk, as a result of the site's commercial orientation and the pressures noted above, that news on nzherald.co.nz will be the same.

Chapter 3: Research Design, Method and Methodology

3.1 Hypotheses

This study, again, looks to compare the stories clicked on most by consumers with the stories ranked highest by journalists on the homepage of nzherald.co.nz to a) see how they might relate, and b) assess generally what they look like. This study also seeks to explore the role of time, looking at how news selections might change over the course of day.

This study adopts inductive and deductive epistemological approaches. It bases hypotheses on existing literature, explores associations between variables and seeks to generate theories based on findings (Blaikie, 2010). The discussion above serves to inform several hypotheses about the top news selections of journalists and consumers in the context of the nzherald.co.nz website.

Borrowing from the reviewed literature, the following hypotheses about the news selections of journalists and consumers are posited:

H1: There is a relationship between the online news selections of journalists and consumers. Journalistic homepage rankings and consumer clicks will be positively correlated and selections will resemble one another. This correlation and resemblance will increase over the course of a day.

This hypothesis explores the potential relationship between journalistic and consumer news selections. It assumes that the news selections of journalists and consumers are related and positively correlated. This hypothesis is informed by literature on the relationship between journalistic and consumer decision-making (Tewksbury & Rittenberg, 2015) as well as the noted influence of analytics on journalistic gatekeeping (Vu, 2014; Tandoc, 2014) and the influence of story placement on consumer news selections (Tewksbury & Rittenberg, 2015). It is hypothesised that there is a close relationship between these two variables on the nzherald.co.nz website because of:

1. The Herald's strong commercial orientation and use of real-time audience analytics (Chartbeat). A review of literature on commercial incentives in the previous section points towards the increasing convergence of journalist-consumer interests. It is theorised that the Herald, because of a pressure to perform well, has a commercial incentive to appeal to its target audience and satisfy consumer interests for the purpose of keeping pageviews high. This means matching story supply with story demand. The use of real-time analytics also allows the Herald to accurately map and follow the

audience agenda, enabling the site to capitalise on technology for commercial gain. For these reasons, a relationship between consumer clicks and journalistic homepage rankings is assumed.

2. The tendency of consumers to be influenced by news story placement and news popularity indicators on website homepages. Consumers take cues from journalists about the relative importance of certain news stories based on their placement and are attracted to stories in prominent positions. Thus, it is theorised that any stories placed at the top of the nzherald.co.nz homepage will attract more attention and clicks, fuelling the journalist-consumer feedback loop (Tewksburty & Rittenberg, 2015).

Additionally, the role of time will also be considered in terms of the level of matching between news selections and the strength of association between clicks and rankings at different points throughout the day. It is assumed that the strength of association between the news selections of journalists and consumers will get stronger – that is, the correlation level between journalistic homepage rankings and consumer clicks (as variables) will increase over the course of a day. It is also proposed that the number of matches between the news selections of journalists and consumers every hour will increase over the course of a day.

These theories are again informed by the Herald's strong commercial orientation and use of real-time audience analytics - something which theoretically makes it easier for journalists to follow the audience agenda and match interests story for story, thereby increasing the news' appeal to audiences (Anderson, 2011a). As more information about consumer interests reaches journalists throughout the day, it is theorised that the similarity between journalistic and consumer news selections will increase as journalists make use of this data. This is what was discovered by Lee et al. (2014) in their study of the impact of clicks on news placement decisions. At the same time, it is theorised that consumers will take cues from journalists also, fuelling the journalist-consumer feedback loop and increasing the strength of association and the level of agreement between the news selections of each group.

H2a: Consumers will select proportionally more soft news and non-public affairs news stories than hard news and public affairs news stories. Journalists will select proportionally more hard news and public affairs news stories than soft news and non-public affairs news stories.

H2b: There will be a gap between the news selections of journalists and consumers. Consumers will select proportionally more soft news and non-public affairs news stories than journalists. Journalists will select proportionally more hard news and public affairs stories than consumers.

These hypotheses explore the thematic nature of journalistic and consumer news selections and are informed by online news research that indicates a preference for non-public affairs news among consumers, a preference for public affairs news among journalists (despite a trend towards the softening of news) and consistent gap between the news interests of journalists and

consumers (Boczkowski & Mitchelstein, 2013; Boczkowski, Mitchelstein, & Walter 2012; Boczkowski & Peer, 2011; Boczkowski, Mitchelstein, & Walter 2011; Boczkowski & Mitchelstein, 2010). It is theorised that the news selections of journalists and consumers on nzherald.co.nz will have the same features as those witnessed in previous studies.

H3: The news selections of journalists and consumers will become softer/less public affairs oriented over the course of a day.

This hypothesis also explores the thematic nature of journalistic and consumer news selections, but specifically considers the role of time. It looks at how particular stories are ranked by journalists and consumers throughout the day. It theorises that while there might be a consistent gap between the news selections of journalists and consumers (H2b), this gap will decrease over the course of a day as selections for both groups become softer. This hypothesis is based on Boczkowski's (2010a) observation that news readers tend to click on softer stories during subsequent visits to news websites. It is also based on the theory that as hard news stories from the Herald's print edition are posted online in the morning and phased out during the day, this content may be replaced by softer news stories. Maier and Tucker (2012) note that newspaper copy is generally more hard news focused and online copy more soft news focused. As a shift from paper copy to online copy occurs online from morning to afternoon, news may therefore become softer.

Overall, these hypotheses will help in answering the three research questions set out in the introduction:

1. What do the news selections of journalists and consumers look like in terms of topic selection and the ranking/popularity of stories?
2. How do the news selections of journalists and consumers (in these regards) compare?
3. How do the news selections of journalists and consumers relate?

3.2 Method and Methodology

In order to test these hypotheses, quantitative data on the online news selections of journalists and consumers was collected from the nzherald.co.nz website. A quantitative approach was chosen over a qualitative approach because of the availability of rich news selection data and arguably because it is the most methodologically reliable way to assess news preferences. The case for this latter point will be made below.

The Herald website was chosen as a case study for theoretical and practical reasons. In terms of theory, Mabry (2008) notes that case studies are useful because they allow researchers to probe deeply into an institution or social phenomenon. Case studies can therefore provide rich details and explanations. They can, however, be limiting with regard to the generalisability of

findings (Mabry, 2008). Nevertheless, this limitation is somewhat overcome in this research project because nzherald.co.nz is one of only two major news websites in New Zealand - with stuff.co.nz and nzherald.co.nz having a combined online news market share of 94% in 2014 (Myllylahti, 2014). The site is read widely across the country, reaching a monthly online audience of almost 1.4 million people (Myllylahti, 2015). In this way, the site and its audience – being large and widely read – are significantly representative of New Zealand, making the case study approach appropriate. More general conclusions about online news in New Zealand can therefore be made.

The Herald website was also chosen as a case study for reasons of practicality and unique access to data. By virtue of the researcher's employment at the Herald at the time, there was the opportunity to access page view data collected for nzherald.co.nz. Without such data, a detailed comparative content analysis would not be able to be performed. Thus, nzherald.co.nz was chosen because access facilitated a better comparative analysis. Unique access also gave the researcher insights into journalistic practices at the Herald – in particular, insight into the Herald's use of web tracking tools such as Chartbeat.

The processes for data collection are detailed below, but first it is important to consider the role of different methodologies in probing news selections because there are some issues which this study seeks to avoid.

As detailed above, there have been many studies into the news interests, preferences and selections of journalists and consumers. Most studies of journalistic news selections have used content analysis – a reliable and unobtrusive method of analysis (Krippendorff, 2004). This study will use this methodology to probe journalistic news selections because of its reliability.

Many pre-internet studies of consumer news selections employed a potentially unreliable survey methodology (Boczkowski & Mitchelstein, 2013; Tewksbury, 2003; Curtain, Dougall, & Mersey). Such studies asked consumers what news they consumed and the data collected provided insights about levels of interest in various topics such as politics, business, economics, entertainment and sports (see Pew Research Center, 2012a; Robinson, 2007a; Stone & Boudreau, 1995; Singer, 2011; Gans, 1979). The reliability of data collected using this methodology, however, rests on truth-telling and memory recall (Boczkowski & Mitchelstein, 2013).

Several academics have, therefore, raised issues with the survey methodology because of the potential for survey respondents to mislead researchers or misremember their news consumption habits (Boczkowski & Mitchelstein, 2013; Tewksbury, 2003; Curtain, Dougall & Mersey, 2007; Krippendorff, 2004). Boczkowski and Mitchelstein (2013) argue:

The use of survey research is particularly problematic in light of the inaccuracy of audience self-reports of media use. Because of the perceived social desirability of

knowledge of public-affairs content, some audiences may report accessing such content in higher proportions than they actually do. Conversely, they may underreport their consumption of non-public-affairs content. (p. 9)

In short, Boczkowski and Mitchelstein argue that people are liable to mislead researchers when asked about their news consumption behaviour for fear of being seen as uninformed. Studies that have compared self-reported news consumption to actual, observed news consumption have found self-reports to be unreliable, with gaps between reported preferences and behaviour (Tewksbury, 2003; Trussler & Soroka, 2014). In sum, people can under-report their consumption of non-public affairs stories and negative news (Tewksbury, 2003; Trussler & Soroka, 2014).

Academics have therefore argued that the use of quantitative online data and/or content analysis provides a clearer insight into what journalists and consumers actually do, as opposed to what they say they do (Boczkowski & Mitchelstein, 2013; Tewksbury, 2003). The internet is a tool “that allows researchers to observe news reading behaviour more reliably and less obtrusively than had been possible before” (Tewksbury, 2003, p. 695).

Generally, Prior (2005) observes that internet technology is allowing researchers to gain a more accurate picture of consumer news interests than was available pre-internet. Boczkowski and Mitchelstein (2013) argue that news interests can be probed at the individual story level, rather than at the aggregate level, with online data. This allows for a more nuanced assessment of the behaviour of consumers. In light of the benefits, some online studies have already shifted away from survey-based methodologies to employ both content and data analysis (Tenenboim & Cohen; Tewksbury, 2003); arguably a shift towards a more unobtrusive and less error-prone methodology (Krippendorff, 2004). This study will also employ both content and data analysis to assess the news selections of consumers for these reasons.

Overall, this study adopts a quantitative methodological approach because of the benefits such an approach provides. There is the opportunity for fine-grained analysis of the kind that survey and ratings data do not allow for. There is also the benefit of circumventing noted reliability issues with survey responses.

In sum, then, both content and data analysis will be used to assess the top news selections of journalists and consumers on nzherald.co.nz.

3.3 Data collection and sampling

In order to test the hypotheses enumerated above, samples of news stories were taken from nzherald.co.nz and a number of variables operationalised and coded. Data on journalistic and

consumer news selections was collected from nzherald.co.nz using manual and automated processes (screen captures and the Herald's data analytics system ComScore).

A sample of two constructed weeks (excluding weekends) from a two-month period was chosen to collect data from. Regarding constructed week sampling generally, Hester and Dougall (2007) note that two constructed weeks is an ideal sample size to use to provide a good estimate of population characteristics over a limited timeframe (six months in their case). This use of a stratified random sampling methodology (Luke, Caburnay, & Cohen, 2011) contrasts with the use of consecutive day sampling (Curtain, Dougall, & Mersey, 2007) and simple random sampling (Boczkowski & Mitchelstein, 2010) in other content analysis studies. It was chosen, however, because constructed week sampling arguably produces better estimates of content in a wider population, especially with smaller samples (Riffe, Aust, & Lacy, 1993; Hester & Dougall, 2007). Indeed, constructed week samples are arguably more reliable than random or consecutive day samples because they account for variations between days of the week (Riffe, Aust, & Lacy, 1993). Generally, in contrast to simple random and consecutive day sampling, constructed week sampling allows for more reliable estimates to be made for a wider population (Riffe, Aust, & Lacy, 1993; Hester & Dougall, 2007; Riffe, Lacy, & Fico, 2014). This allows for more generalizable conclusions regarding the news selections of journalists and consumers.

Limitations of time and access meant data could only be collected in the months of November and December in 2015. Nevertheless, this still allowed for the collection of rich data. As Luke, Caburnay, and Cohen (2011) observe:

The overall goal of constructed week sampling is to create maximum sampling efficiency while controlling for cyclical biases (e.g. weekly news patterns). Too few sampling units may lead to unreliable estimates and invalid results, whereas too many may be a waste of coding resources (p. 78).

Two constructed weeks from this period provides an ideal amount of data that contains not too few and not too many units. The two constructed weeks of news covered were: **1)** November 10 (Tues), 18 (Wed), 26 (Thurs) and December 4 (Fri), 7 (Mon), **2)** November 19 (Thurs), 27 (Fri), 30 (Mon) and December 8 (Tues), 16 (Wed).

Weekends were excluded because the researcher was employed at the Herald during weekends for November and December and there was a risk of data contamination. They were also excluded because the nature of weekend news is different to that of weekdays (Boczkowski, 2010a).

A. Journalist sample

Data on stories journalistic news selection was collected by recording the top 14 stories at the top of the nzherald.co.nz homepage. This methodology follows that of previous online news

selection studies (see Boczkowski & Mitchelstein, 2013; Boczkowski, Mitchelstein, & Walter, 2012; Boczkowski & Peer, 2011). These top 14 stories on the nzherald.co.nz homepage are those on the left-hand side of the page, counting down (as shown in Figure 6).

Figure 6: NZ Herald homepage rankings

The screenshot displays the NZ Herald homepage with a navigation bar at the top including the date (6:01am Tue 10 November), location (Auckland), and various utility links like Register, Login, and Subscribe Now. The main content area is divided into several sections:


- Top Banner:** A large article titled "Bowel cancer: Early checks can save lives" with a sub-headline "Early detection can boost your odds against bowel cancer but NZ's short supply of diagnostic firepower may be frustrating Kiwis' efforts to help themselves." It is ranked 1st.
- Ranking 2:** "Kiwi: Trouble 'had been brewing'" with a sub-headline "Kiwi detainees at Christmas Island stepped in to protect a refugee from being assaulted by 'heavy-handed' guards, sparking the riots." It is ranked 2nd.
- Ranking 3:** "Soldiers 'fought for freedom of choice'" with a sub-headline "Our soldiers died for our freedom, including the freedom of choice to select a new flag - the 24-hour Flag Summit had heard." It is ranked 3rd.
- Ranking 4:** "How will NZ cope with rising sea levels?" with a sub-headline "New interactive maps have shown how projected sea-level rise under different climate change would transform our coastlines and inundate low-lying areas." It is ranked 4th.
- Ranking 5:** "Job losses over language requirement" with a sub-headline "Two Maori Television receptionists will have to prove they are fluent in Te Reo Maori to keep their jobs." It is ranked 5th.
- Ranking 6:** "Pup stuns owners by attacking 6-year-old" with a sub-headline "A 6-year-old boy is recovering in hospital with facial injuries after being bitten in the face by a dog." It is ranked 6th.

Other sections include:

- Latest News:** A list of recent news items such as "Prince Charles meets Key and Little", "Alleged rape victim 'trusted those guys'", "Man charged over armed police callout", and "Experts urge Labour to sweeten policy".
- Most Popular:** A list of popular articles including "Interactive: How your neighbourhood will change by 2038", "How much you need in KiwiSaver to be comfortable", and "Mongrel Mob deaths: victims named".
- Features:** A section titled "Christchurch boy's speech goes viral" featuring a photo of a young boy.
- Bite:** A section titled "Juicy fruit" featuring a photo of a bowl of red fruit.
- Viva:** A section titled "Why Adele's Rolling Stone Cover Is Important" featuring a photo of Adele.
- Property Picks:** A section titled "Should You Wear Jeans at Work?" featuring a photo of a person.

Figure 6: NZ Herald homepage rankings

7




NZ teen's billionaire backer

A Kiwi whizz-kid has bought up another tertiary tutoring business and drawn the attention of NY billionaires as he cast his eyes further afield.

⚡ Quickread ☆ Save

8




Refs stood down after controversial call

The NBL has implemented a rule change and stood down two referees in the wake of the controversial decisions which helped Melbourne United beat the Breakers.

⚡ Quickread ☆ Save

9




Former nun shares rocky road

As a young woman growing up in Auckland in the 60s and 70s, Maria Hall dreamed of "boys, of love and marriage, and of living on a houseboat".

⚡ Quickread ☆ Save

10




NZ China expert warns on growth

Beijing-based investment advisor David Mahon delivered a sobering message to today's China Business Summit - prepare for more bad news about the Chinese economy.

⚡ Quickread ☆ Save

11




Iwi's plans for North Shore housing land

Ngati Whatua soon to announce intensive housing proposal on North Shore holdings.

⚡ Quickread ☆ Save

12




Kiwi online ad hits bump

Facebook has been accused of being old-fashioned by blocking a small Auckland company's advertisements for maternity and breast-feeding dresses.

⚡ Quickread ☆ Save

13




Why your queue is crawling

If you always find other checkout queues move faster than yours, you're not alone.

⚡ Quickread ☆ Save


14




Burglar drinks \$1329 of wine

A homeless alcoholic has been convicted of burglary after sleeping in a Queenstown house for a week and drinking up to 20 bottles of wine.

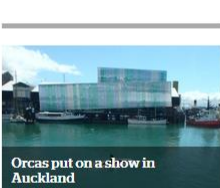
⚡ Quickread ☆ Save




Watch: Seal catches a ride on a whale



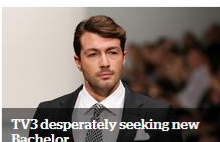
Boxing: Two tough rivals set to test Parker




Orcas put on a show in Auckland




Harvey Norman sales glitch: No action



TV3 desperately seeking new Bachelor




Dancer's hopes set on brilliant career



Kiwi kayaker takes on Iceland waterfalls - Part 2

☒ All
 ☐ Residential
 ☐ Rural
 ☐ Commercial




Lismore - Simply Superb
Martinborough, South Wairarapa

Lismore is more than just a beautiful home sited on a very special property, with pro...


[VIEW](#) **BAYLEYS**

Canvas magazine




Wine: Three drops to begin November
Brancott Estate Brut NV Gloriously nutty, lemon shortbread-like aromas waft forth and command you to sip this cracker of...

Shorts for summer
Restaurant review: The White Rabbit




TIRE BUYERS
The more you buy.. the bigger the discount!
[CLICK NOW TO SAVE!](#)

spy



All Blacks cut loose after Cup duties



Lorde spends birthday in the studio

68

This sample of top 14 stories was chosen because:

- 1) These stories represent the top 14 most newsworthy stories for journalists at any particular time. They are considered 'most newsworthy' to journalists because of their prominent placement (Boczkowski, Mitchelstein, & Walter, 2011). They are stories akin to those placed in the front section of a newspaper. These front page stories in print are typically those which are most important, interesting or relevant (Althaus & Tewksbury, 2002) and homepage stories are viewed in the same way (Karlsson & Stromback, 2010). In this regard, the prominent placement of stories on the nzherald.co.nz suitably approximates journalists' assessment of newsworthiness (Boczkowski, Mitchelstein, & Walter, 2011). They are indicative of journalistic news interests and preferences. This rationale follows that of prior studies (Boczkowski & Mitchelstein, 2013; Boczkowski, Mitchelstein, & Walter, 2012; Boczkowski & Peer, 2011).
- 2) This is the actual ranking system used by nzherald.co.nz. Stories are indeed ranked 1-14 in this fashion within the website's content management system (CMS), with the most important, up-to-date, relevant and interesting stories arranged at the top of the homepage. Stories in the 'Features' column (see Figure 6) are not part of this 1-14 ranking process within the Herald's CMS and have therefore been excluded from the analysis.

Regarding story placement, Karlsson and Stromback (2010) observe that:

It is important not only how a news story is told but also where it is told. In research on traditional news media it is thus common to distinguish between, for example, stories on the front pages and stories buried within the newspapers. With respect to web pages, the most important spot is the front page, which is the first page a visitor sees and where the news media publish the stories that they believe are most important or interesting. (p. 6)

Of course, story placement is not the only determinant of newsworthiness and prominent placement is not necessarily always indicative of story importance, but this is the most suitable approximation of journalistic news preferences available (Boczkowski, Mitchelstein, & Walter, 2011). As noted in the review of literature for this research, numerous factors can potentially influence the news selection and placement decisions of journalists. A sense of duty to inform and educate the public, for example, is likely to influence decision-making (Boczkowski & Mitchelstein, 2013). Stories may also be placed prominently on nzherald.co.nz for commercial reasons or, in some cases, because of pressure from advertisers (Rosenberg, 2002). In this regard, stories at the top the nzherald.co.nz website may not always be the 'most newsworthy'

stories per se, but the inference taken in this research is that they are, given how newspaper front pages and website homepages are typically treated.

In sum, then, the top 14 stories on the nzherald.co.nz homepage were analysed. To gain a fine-grained picture of news selections and to account for the frequency of story turnover online, data was collected every hour. This approach borrows from Karlsson and Stromback (2010). Data was collected every hour on the hour from 6 a.m. until 9 p.m. for each of the data-collection days, resulting in 2,240 story units for journalistic news selections – (14 stories x 16 hours) x 10 days = 2,240 story units. This sample of 2,240 stories includes repeated cases. Overall, accounting for story overlaps between hours, this process resulted in the collection of 569 unique news articles selected by journalists.

B. Consumer sample

Adapting the methodology of prior studies (Tenenboim & Cohen, 2015; Tewksbury, 2003), data on top consumer news selections was collected using the Herald's data analytics system ComScore. The ComScore system records all consumer clicks on nzherald.co.nz and provides information about individual story popularity per hour and per day in terms of pageviews and unique browsers.

Total pageviews was the metric used for ranking top consumer selections. These most-viewed stories are again a "suitable approximation" of consumer news preferences, in accordance with prior research (Boczkowski, Mitchelstein, & Walter, 2011, p. 384).

Rather than using the publicly available list of 'most read' stories available on the nzherald.co.nz homepage (see Figure 6) - the method used in a number of studies (Boczkowski & Mitchelstein, 2013; Boczkowski & Mitchelstein, 2010; Curtain, Dougall, & Mersey, 2007) - this approach was used because:

1. It provided more data and allows for a better comparison with the news selections of journalists. The 'most read' list on the nzherald.co.nz homepage only shows the top 5 stories for consumers, rather than the top 14. In order to facilitate a direct comparison with journalists' top 14 stories, pageview data for all stories was therefore collected and the top 14 stories for each hour ranked.
2. Data on individual page views provides a fine-grained picture of consumer news selections and allows for more accurate ranking of stories. It is not clear from what starting point the 'most read' list counts consumer clicks, nor is it clear whether the list is ranking stories by pageviews or unique browsers. Using data from the Herald's own analytics system provides more accuracy and reliability.
3. It avoids any potential problems with data lag associated with the 'most read' list. It is not clear how frequently the 'most read' list is updated. Nor it is clear whether there is lag between real-time clicks occurring on-site and the refreshing of the 'most read' list.

4. Unique access to this data was available by virtue of the researcher's employment at the Herald at the time. This opportunity to use rich data and add depth and reliability to a quantitative analysis of news selections was viewed as being a positive.

However, as an important note, this research will not report specific pageview statistics collected from ComScore. On agreement with the Herald, information about how many pageviews individual stories received cannot be reported. Instead, pageview data informs the particular ranking of stories (1-14) for each hour. This diminishes some of the richness of the data, but the ability to compare journalists' top 14 stories to consumers' top 14 stories is the benefit of this approach. Without ComScore data, comparisons would be limited to the top 5 stories only.

In light of this, ComScore reports were downloaded for each of the data collection days and the top 14 stories in terms of pageviews noted down for each hour from 6 a.m. until 9 p.m. This again resulted in the collection of 2,240 story units - (14 stories x 16 hours) x 10 days = 2,240 units. Overlap between hours meant there were a total of 662 unique stories collected for consumers.

Overall, between both journalists and consumers – accounting for overlap between the two – a total of 801 unique stories were collected among 4,480 story units. Of these 801 stories, 139 were selected only by journalists, 232 selected only by consumers and 430 selected by both groups.

3.4 Coding and Definitions

The collected news stories were coded according to a detailed protocol. Each story was assigned a unique number, headline and time/date. Stories for each hour were also assigned a ranking (1-14) based on their position on the nzherald.co.nz homepage (for journalists) or the number of page views they received in that hour (for consumers).

To account for and keep track of repeated stories, the unique Object IDs assigned to articles by the Herald were made use of. Each article posted to the nzherald.co.nz website comes with a unique identifying number (located in the story's URL) that remains the same despite any changes made to the headline or story content. For example, the news article about All Black captain Richie McCaw's retirement has the following URL:

http://www.nzherald.co.nz/sport/news/article.cfm?c_id=4&objectid=11547916

The unique Object ID for this story is 11547916.

These Object IDs allow for analysis of the collected data based on all data points (4,480, included repeated stories) or based on unique stories only (801 stories).

The collected news stories were each coded for 'story topic' and 'story focus', based on a coding protocol. These categories were used to lend clarity and specificity to the research. Concepts such as 'sports news' and 'entertainment news' are easy to grasp and more closely reflect the language used by social actors (i.e. journalists and consumers) in an everyday context (Blaikie, 2010). The Herald's own story classification system was not used because of potential unreliability. It is unclear how and on what criteria Herald journalists classify stories on nzherald.co.nz and the Herald's topic designations (National, Opinion, Business, Tech, World, Sport, Entertainment, Lifestyle, etc) were ignored on this basis.

The 'story topic' variable included fourteen news story types, with each topic defined as follows:

- 1) **Accident and Emergency Services (Accident):** National news stories about accidents, deaths, injuries, fires and other related incidents.
- 2) **Entertainment:** National and international news stories about celebrities, movies, television shows and other related topics.
- 3) **Business and Economy (Business):** National news stories about businesses, the job market and the wider economy. This category included stories about the property market and housing prices.
- 4) **Government and Politics (Government):** National news stories about the activities of government, elected officials and other public servants. This category included military and defence stories as well as local political stories about council affairs.
- 5) **Weather:** National news stories about weather.
- 6) **Sports:** National or international news stories about sports. This category included stories about the personal affairs of sporting stars.
- 7) **World Affairs (World):** International stories about political events, disasters, the economy, war, terrorist attacks and other related topics.
- 8) **Odd News and Viral News (Odd):** National or International stories about unusual events. This category included viral news stories and stories focused on cute or funny visual content.
- 9) **Social Issues:** National stories about social issues such as welfare, education, housing, health, discrimination, religion, Maori affairs and other related topics.
- 10) **Science:** National or international stories about science, medicine, scientific research and technology. This category included stories about the environment and climate change.
- 11) **Lifestyle:** National or international stories about the arts, fashion, food & wine, personal health, dieting and other related topics.
- 12) **Opinion:** National or international stories that are personal opinion pieces not in the traditional straight news format. This category did not include sports commentaries, which were instead coded as Sports.

- 13) **Crime:** National stories about crime, criminal behaviour and the courts.
- 14) **Other:** National or international stories that do not fall into any other category.

The 'story focus' variable included two news story types, with each type defined as follows:

- 1) **Non-public affairs news (NPA):** National or international stories about topics such as sports, entertainment, weather, crime and science that have no political relevance or impact on the wider body politic.
- 2) **Public affairs news (PA):** National or international stories about government, world affairs, economics and social issues that have an impact on or relevance to the wider body politic and the functioning of society. Taking into consideration each story's topic and focus, these are stories that have a direct connection to the wider national and international political context (Reinemann et al., 2011). This category included stories about important health, environmental and education issues. Stories about elected officials were coded as public affairs news.

Intercoder reliability tests were conducted to establish the validity and robustness of the coding protocol. Several pilot tests of the coding protocol were conducted using small samples of data (which were not from main sample). Revisions of the coding protocol were made to refine the 'topic' and 'focus' definitions during this time.

For the first pilot, intercoder agreement for two coders was 75% for 'story topic' (Cohen's kappa intercoder agreement of 0.72) and 90% for 'story focus' (Cohen's kappa intercoder agreement of 0.69). For the second pilot, after refinements were made to the coding protocol, intercoder agreement for two coders was 90% for 'story topic' (Cohen's kappa intercoder agreement of 0.88) and 85% for 'story focus' (Cohen's kappa intercoder agreement of 0.66).

A final assessment of the refined coding protocol was conducted with an intercoder reliability test based on a subset of 10% of the actual sample data. Intercoder agreement for two coders was 78.75% for 'story topic' (Cohen's kappa intercoder agreement of 0.76) and 91.25% for 'story focus' (Cohen's kappa intercoder agreement of 0.74). A Cohen's kappa score over 0.70 is noted as being satisfactory in establishing overall intercoder reliability (Wrench, Thomas-Maddox, Peck Richmond, & McCroskey, 2008). The remaining data was coded by a single coder based on this sufficient level of intercoder agreement.

The following results are based on an analysis of the coded data. As noted, there are two ways of analysing the collected stories: First, looking at 'all story' data, which includes all recorded cases (4,480 stories; 2,240 for journalists, 2,240 for consumers), including repeated news stories. Second, looking at 'unique story' data (569 stories for journalists, 662 stories for consumers; 801 unique stories together), which excludes repeated news stories.

Throughout the results section of this study, topic and focus proportions for 'unique story' data are reported in order to, on the one hand, account for and mitigate against repeated stories,

describing news selections only in terms of unique cases (662 for consumers, 569 for journalists). This is to allow for comparison with other studies which have only considered unique cases collected over a sample period – such as with Boczkowski, Mitchelstein and Walter (2011). On the other hand, topic and focus proportions for ‘all story’ data (including repeated cases – 2,240 data points for each group) are reported in order to account for the influence of time and repeated story selection.

Indeed, as a result of the sampling methodology employed – with samples taken every hour – repeated stories are common in this dataset. Stories among the top 14 most newsworthy at 8am, for example, are often still among the top 14 at 9am and 10am. Differences between ‘unique story proportions’ and ‘all story proportions’ therefore represent the influence of the repeated selection of stories by journalists and consumers across hours. Some stories in the consumer selections dataset were repeated as many as 16 times, indicating they were among the top 14 stories for consumers across 16 different hours. The repeated selection of these stories is arguably suggestive of their importance and newsworthiness for journalists and consumers. Where relevant, the longevity of particular news stories will be noted.

Further to the definitions already provided, the meaning of particular terms which are relevant to the interpretation of the results section of this research are as follows:

- **‘Most newsworthy stories’** are those stories which are on the top 14 lists of journalists and consumers. For journalists, these are stories which have been prominently placed on the nzherald.co.nz homepage. Boczkowski, Mitchelstein and Walter (2011) note that these stories are typically deemed most newsworthy by journalists and are seen most often by consumers, meaning they are a suitable approximation for journalists’ news preferences. For consumers, these ‘most newsworthy stories’ are those stories which have been viewed the most, with popularity being a proxy for consumer news judgment and news preferences.
- **‘Most viewed stories’** or **‘most popular stories’** are those stories which have been clicked on most by consumers. These are stories with the most page views for any sampled hour and which appear on consumers’ top 14 list.
- **‘Top selections’** or **‘top news stories’** are those stories which appear on the lists of top 14 stories collected every hour for journalists and consumers over the sampled days. They are the ‘top selections’ because they are the news stories placed most prominently on the nzherald.co.nz by journalists or clicked on most by consumers.
- **‘Soft news stories’** are those stories which, as noted in the terminology section, do not deal with the political or social implications of events and which cover topics including sports, weather, crime, entertainment, accidents, opinion, lifestyle and odd news. ‘Other’ news stories are not included.
- **‘Hard news stories’** are those stories which, as noted in the terminology section, deal with the wider political and social implications of events and which cover topics

including government and politics, world affairs, business and economics, social issues and science. 'Other' news stories are not included.

- **'List-wise pairings'** or **'list-wise matches'** are those stories which at the same time on journalists' and consumers' top 14 list for any particular hour (no matter the specific ranking). For example, if story X appears on journalists' top list in position 2 at 5pm on November 10 and the same story X appears on consumers' top list in position 8 at 5pm on November 10, this is a list-wise pairing or list-wise match.

Chapter 4: Results, Findings and Discussions

4.1 Hypothesis 1 – Results and findings

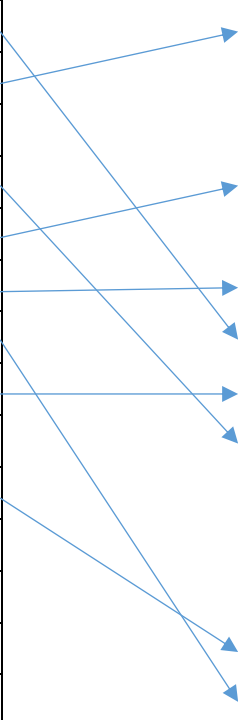
There is a relationship between the online news selections of journalists and consumers. Journalistic homepage rankings and consumer clicks will be positively correlated and selections will resemble one another. This correlation and resemblance will increase over the course of a day.

Hypothesis 1 looks at the news selections of journalists and consumers and assesses whether there is a relationship between them. Establishing the existence of a relationship between the news selections of each group is an important stepping stone for the rest of the analysis. If a strong positive relationship between news selections is found for Hypothesis 1, this may colour the interpretation of the results for Hypotheses 2 and 3.

First, to assess the overall relationship between journalistic and consumer news selections, each set of top 14 stories (one set for journalists, one set for consumers) was compared for every hour and the number of matches recorded. For example, Figure 7 shows that among the top 14 stories for journalists and consumers at 6 am on November 10 are eight list-wise matches. In other words, eight news stories that appeared in the consumer list at that time also appeared in the journalist list.

Figure 7: Example of list-wise matches

Ranking	Consumers, 6 am, Nov 10		Journalists, 6 am, Nov 10
1	ID: 11542571		ID: 11542513
2	ID: 11542513		ID: 11542544
3	ID: 11542717		ID: 11542575
4	ID: 11542602		ID: 11542584
5	ID: 11542584		ID: 11542451
6	ID: 11542609		ID: 11542609
7	ID: 11542604		ID: 11542571
8	ID: 11542606		ID: 11542606
9	ID: 11542558		ID: 11542602
10	ID: 11542529		ID: 11542495
11	ID: 11542534		ID: 11542554
12	ID: 11542526		ID: 11542623
13	ID: 11542518		ID: 11542529
14	ID: 11542577		ID: 11542604



In the same fashion, a comparison of every hour for each of the sampled days was made. This analysis shows numerically the strength of the relationship between the news selections of journalists and consumers. Out of a possible 2,240 list matches (4,480/2), there were 1,409. This means the most newsworthy stories for journalists and consumers paired list-wise 62.9% of the time (based on 'all story' data), indicating a relatively high level of agreement between the two groups.

Meanwhile, among the unique story selections for journalists (569) and consumers (662), there were 801 unique cases. Among these unique cases, 139 were selected only by journalists, 232 were selected only by consumers and 430 overlapped. Overall, this represents a 53.7% overlap between unique story selections for journalists and consumers, indicating a moderate level of agreement between the two groups in this regard. The level of list-wise agreement is perhaps more meaningful, however, given the amount of data and the number of news selection decisions this comparison considers.

Regarding this list-wise agreement measure, Table 4 shows the number of list-wise matches per hour for all of the sampled days. The average number of list-wise matches for each set of stories across all hours was 8.8 (out of a possible 14).

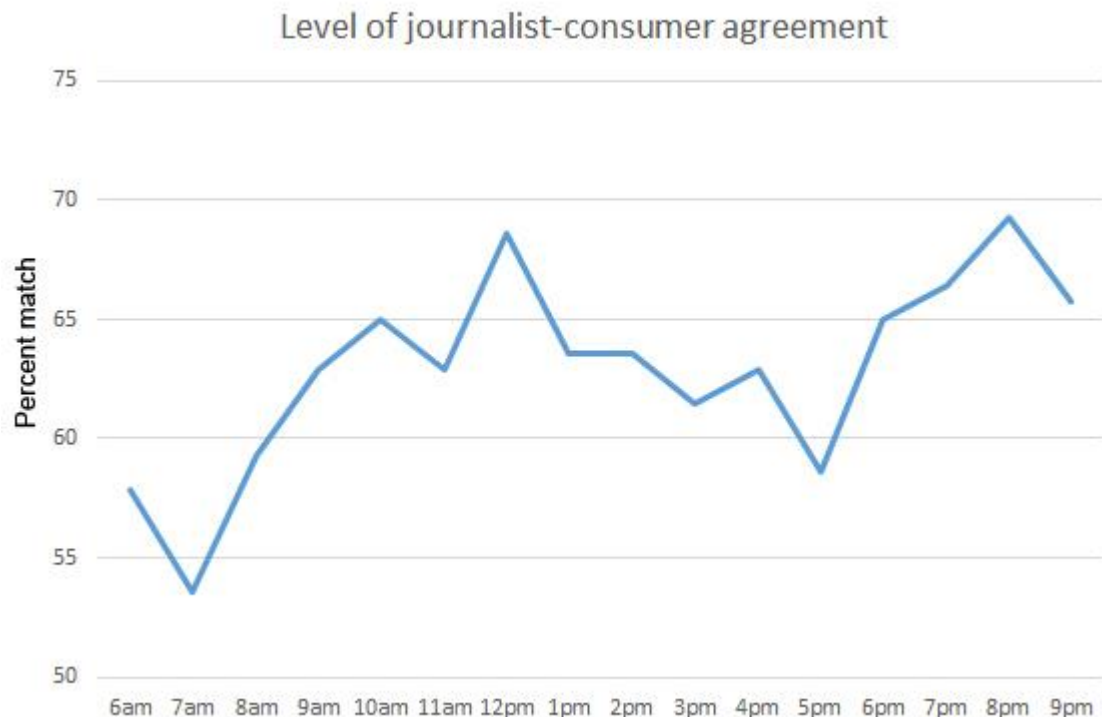
Table 4: Number of list-wise matches per hour (all days)

Date/Hour	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	Avg.
10th Nov	8	8	10	8	11	9	9	9	9	11	10	11	10	9	10	10	9.5
18th Nov	8	5	7	9	9	10	10	10	9	8	8	4	6	7	8	9	7.9
19th Nov	5	7	7	7	10	9	10	9	10	9	9	7	10	9	7	8	8.3
26th Nov	10	8	10	10	8	8	8	8	10	7	7	6	9	8	10	9	8.5
27th Nov	8	6	8	10	9	8	10	9	9	10	10	12	11	12	12	9	9.6
30th Nov	6	7	7	9	8	9	9	10	8	8	12	10	10	9	9	8	8.7
4th Dec	8	9	10	9	9	9	10	7	7	6	9	8	9	9	11	9	8.7
7th Dec	11	8	8	10	10	10	10	10	8	10	8	10	9	9	10	11	9.5
8th Dec	9	8	6	9	10	8	10	10	10	7	7	6	9	12	10	10	8.8
16th Dec	8	9	10	7	7	8	10	7	9	10	8	8	8	9	10	9	8.6
Avg.	8.1	7.5	8.3	8.8	9.1	8.8	9.6	8.9	8.9	8.6	8.8	8.2	9.1	9.3	9.7	9.2	8.8

The number of story matches for any hour on any day does not dip below four. Meanwhile, the number of story matches reaches as many as twelve on several occasions. Overall, Table 4 indicates a consistent level of agreement between journalists and consumers about the most desirable stories on nzherald.co.nz. This level of agreement does not dip below 50% for any

hour, with the lowest level of agreement occurring at 7am (53.57%). Agreement from that time onwards increases steadily, peaking at 8 pm (69.29%). Figure 8 maps the level of agreement for every hour across the sampled days and shows an increase in agreement over time.

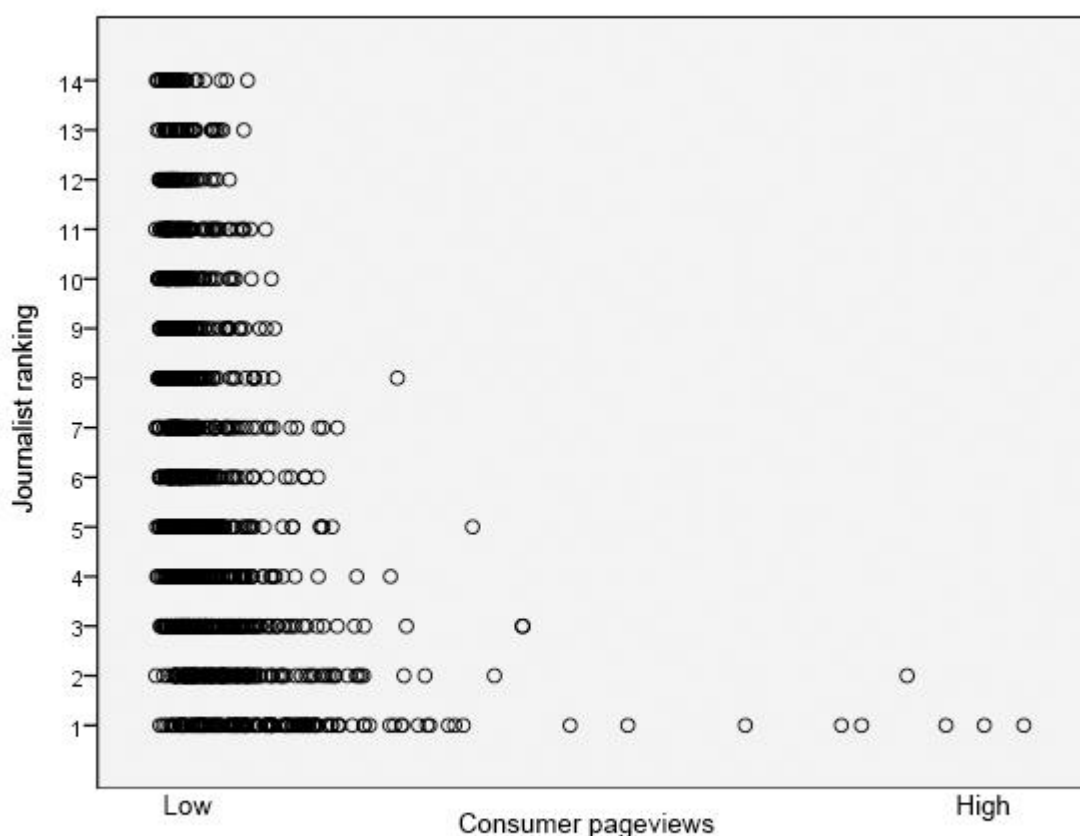
Figure 8: Level of journalist-consumer agreement over time



This data lends support to Hypothesis 1, showing that the news selections of journalists and consumers on nzherald.co.nz do match closely and increase in resemblance over time. Importantly, this increase in agreement proceeds from a base level of 53.57%. Thus, the level of agreement between journalists and consumers about the most newsworthy stories every day on nzherald.co.nz is consistently strong.

Establishing the number of list-wise pairings – i.e. the number of top 14 stories for journalists and consumers which match during any particular hour – is important as a basis for proceeding with correlation analysis. If not matches were found, this would indicate no relationship between journalist homepage rankings and consumer page views. Hypothesis 1, as a result, would be unsupported. A total of 1,409 list-wise pairings out of 2,240, however, indicates some relationship. This relationship is a positive one too, as Figure 9 shows (in the inverse, with 1 being the highest ranking and 14 the lowest).

Figure 9: Plot of journalistic homepage rankings and consumer pageviews



Note: This chart uses pageview data on the X-axis, but on agreement with the Herald it cannot be reported here (for reasons of commercial sensitivity)

Figure 9 points towards moderate positive association between consumer page views and journalistic ranking and lends support to Hypothesis 1. Generally, as the number of pageviews a story receives from consumers increases, so too does the ranking it receives from journalists (and vice versa). This does not imply any causation direction. It is possible that the influence of pageviews on story ranking is stronger or weaker than the reverse. It is also possible that they have equal influence on one another. Establishing a causal direction for this relationship would require further analysis. What can be noted is the positive trend line indicating an association between the two variables.

To further explore this apparent association between pageviews and story rankings, a correlation analysis was performed using 1) a dataset with all 1,409 paired stories, and 2) individual datasets for each hour from 6am-9pm. Rank-order correlations (Spearman's ρ) for the journalist and consumer lists indicate a moderate to strong level of agreement between the news selection rankings of each group – both overall and across different hours.

Spearman's ρ was chosen because journalistic homepage rankings, in particular, are ordinal-level data, meaning parametric data assumptions are violated (Field, 2009). Thus, a

nonparametric test was chosen. As Field (2009) notes, “Spearman’s correlation coefficient is a non-parametric statistic and so can be used when the data have violated parametric assumptions” (p. 179). Consumer pageview data, as ratio-level data, was transformed into ordinal-level data to facilitate a Spearman’s rank-order analysis. This was done by taking all the stories on the consumer lists for each hour and assigning ranks based on their number of pageviews. Thus, the most-viewed story in an hour received a ranking of 1, the second-most a ranking of 2, and so on.

Following this process of conversion, consumer rankings (1-14) for stories each hour were compared to journalist rankings (1-14) for stories each hour. This correlation process involved looking at paired stories only - i.e. those shown in Table 4.

Again, as an example, referring back to Figure 7, it can be seen that at 6am on November 10 a total of 8 stories paired. In terms of individual story rankings, story 11542571 (“NZ teen's billionaire backer”), for instance, was ranked 1st by consumers at 6am on November 10. At the same time it was ranked 7th by journalists. Meanwhile, story 11542513 (“Bowel cancer - the cost of a life”) was ranked 2nd by consumers at 6am on November 10 and was ranked 1st by journalists.

A comparison of these eight paired stories for 6am on November 10 and their relative rankings produced a Spearman correlation coefficient of .571 – a moderate-level, positive rank correlation. Across all matched stories at 6am, the Spearman correlation coefficient was .503 (significant at the .01 level) – again a moderate-level, positive rank correlation. Figure 10 shows this data output.

Figure 10: Example of rank correlation data

Spearman's rank correlation for 6am data			C Ranking	J Ranking
Spearman's rho	C Ranking	Correlation Coefficient	1.000	.503**
		Sig. (2-tailed)	.	.000
		N	140	81
	J Ranking	Correlation Coefficient	.503**	1.000
		Sig. (2-tailed)	.000	.
		N	81	81

** . Correlation is significant at the 0.01 level (2-tailed).

The same comparison between journalistic and consumer rankings for paired stories was made overall – i.e. for all 1,409 paired stories at once – and for each individual hour. The computed correlations go beyond the raw number of list-wise pairings (1,409 out of a possible 2,240) and indicate how closely the two rankings assigned to each matched story (one ranking for journalists, one ranking for consumers) are associated both overall and across individual hours.

The results reported in Table 5 show moderate to strong positive correlations (all significant at .01) between ranks for all hours except for 8pm, which had a weaker correlation level of .372. Overall, across all hours, consumer rankings and journalist rankings were positively correlated, with $r = .522$, $p = .01$. This is a moderate positive correlation indicating that as consumer pageviews/rankings increased, so too did journalistic homepage rankings (and vice versa). The strength of the positive correlation at the $p < .01$ level means that the null hypothesis – i.e. no relationship between journalistic rankings and consumer pageviews/rankings – can be rejected. A clear relationship between these two variables exists.

Table 5: Rank correlations overall and per hour

Spearman's ρ	Correlation between consumer-journalist rankings	R ² value
All stories	.522** (n = 1409)	.27
6am	.503** (n = 81)	.25
7am	.568** (n = 75)	.32
8am	.662** (n = 83)	.43
9am	.671** (n = 88)	.45
10am	.658** (n = 91)	.43
11am	.403** (n = 88)	.16
12pm	.531** (n = 96)	.28
1pm	.510** (n = 89)	.26
2pm	.585** (n = 89)	.34
3pm	.609** (n = 86)	.37
4pm	.534** (n = 88)	.29
5pm	.493** (n = 82)	.24
6pm	.514** (n = 91)	.26
7pm	.450** (n = 93)	.20
8pm	.372** (n = 97)	.14
9pm	.403** (n = 92)	.16

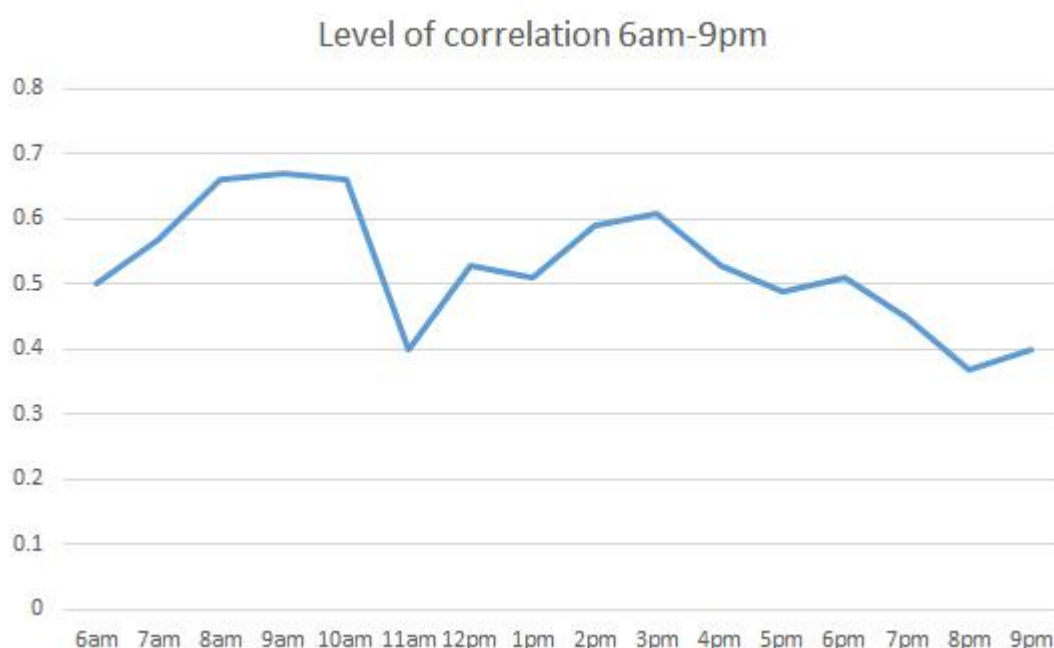
** = significant at the $p < .01$ level

In terms of agreement at specific points in time, interestingly, while there was a high level of list-wise agreement between journalists and consumers at 8pm, there was a lower level of

agreement in terms of rank correlation at 8pm. In fact, the strongest correlation levels were found during the morning hours of 8-10am at times when there were lower levels of list-wise agreement. An explanation for this may be that the high level of list-wise agreement cancels out the need – at least on the part of journalists – to match stories in terms of their relative rankings.

Figure 11 shows correlation levels across hours. There is somewhat of a downward trend in correlation levels, with dips at 11am and 8pm. Broadly, while levels of list-wise agreement increase over the course of a day (as seen in Figure 8), correlation levels between consumer-journalist rankings do not increase (as seen in Figure 11). There is no clear explanation for this. Future studies may wish to analyse potential reasons behind this inverse relationship.

Figure 11: Level of correlation over time



What the data shows is moderate to strong correlations across hours between journalist and consumer rankings of stories. Data from Table 5 lends moderate support to Hypothesis 1. An overall correlation level of .522 (significant at $p < .01$) indicates a moderate positive association between page views and story rankings. The strength of the relationship between these two variables varies at particular points during the day, with the strongest level of association at 9am and the lowest level of association at 8pm. Correlation levels do fluctuate somewhat but there is a slight downward trend in the data. Thus, contrary to what was hypothesised, the strength of association between these two variables does not increase as the day goes on. In fact, correlation levels fluctuate somewhat throughout the day and decrease in the evening (from 7-9pm). Nevertheless, there are at all hours of the day, apart from 8pm, moderate to strong correlations ranging from .403 to .662 (all significant at $p < .01$). Again, there is an overall moderate association between journalist and consumer rankings (.522 at the $p < .01$ level).

Overall, looking to Hypothesis 1, while the level of agreement between journalists and consumers about which are the most newsworthy stories of the day is high and does increase over the course of a day, the level of association between page views and story rankings is only moderate-to-strong and does not increase. In other words, while stories do increasingly match list-wise (with the news selections of journalists and consumers increasing in resemblance over the course of a day), their relative rankings do not increase in resemblance, indicating a lower level of association in this regard. In sum, journalist and consumer news selections are similar but not perfectly related.

Indeed, this close but imperfect relationship is evidenced by the R-squared value for journalist-consumer rankings. This statistic looks at the squared values for consumer-journalist correlations and provides an insight into how much the variability in scores for one variable can be accounted for by the other. Field (2009) observes that:

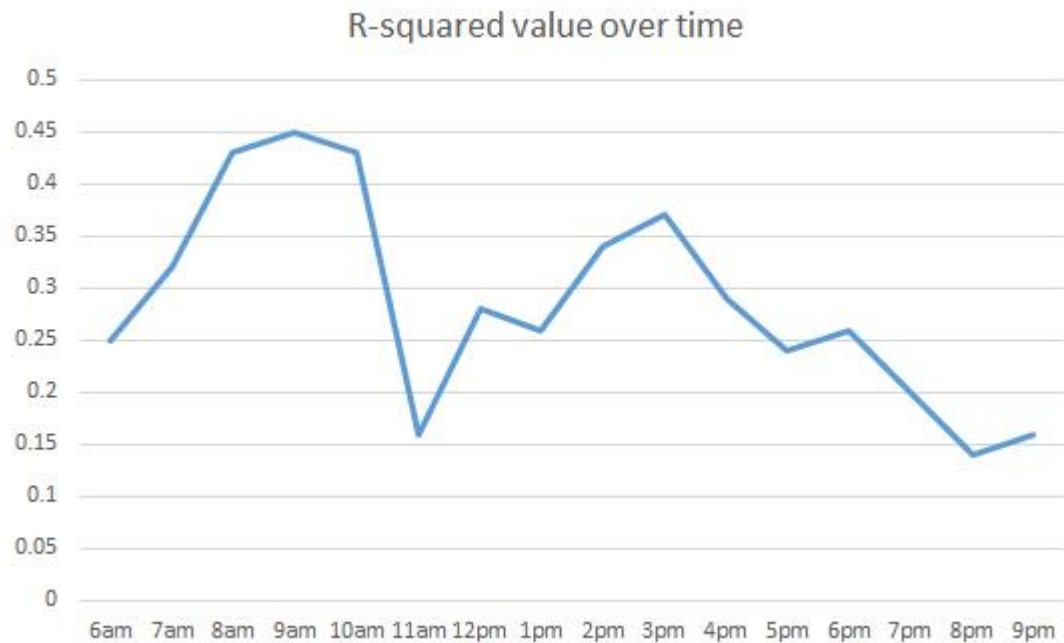
Although we cannot make direct conclusions about causality from a correlation, we can take the correlation coefficient a step further by squaring it. The correlation coefficient squared (known as the coefficient of determination, R^2) is a measure of the amount of variability in one variable that is shared by the other. (p. 179).

The R-squared value for journalist-consumer rankings is .27 ($R^2 = .27$, $p < .01$), indicating that 27% of the change in one variable (consumer page views/journalist rankings) can be accounted for by change in the other. Broadly, 27% of the variability in journalistic home rankings may be accounted for by consumer rankings/pageviews. At the same time, 27% of the variability in consumer pageviews/rankings is accounted for by journalistic homepage rankings. This relationship is bi-directional.

Importantly, this R-squared value leaves 73% of the variance in each variable unaccounted for. This means that journalistic rankings and consumer page views are far more influenced by other variables not analysed here. These other factors/variables have a larger role to play in news selection decisions than homepage rankings and page views. Nevertheless, 27% is still a large proportion of variability accounted for, especially given the number of potential variables involved in selecting news. As noted in the review of literature above, numerous factors can come into play (for both journalists and consumers) when making news selection decisions. If one variable, journalistic rankings or consumer pageviews/rankings, can account for 27% of variability in the other, then this is a fair amount of the news selection puzzle potentially explained.

Again, mirroring the fluctuation in correlation levels, R-squared values vary throughout the day. At 9am, at its highest point, 45% of variance in each of the journalistic and consumer ranking variables is accounted for. This dips to 16% at 11am, rises to 37% at 3pm, and dips again to 14% at 8pm. Figure 12 shows this fluctuation and downward trend.

Figure 12: R-squared value over time



Conclusion

Based on the discussion above, the first portion of Hypothesis 1 – “There is a relationship between the online news selections of journalists and consumers” – is affirmed. There is a relationship between the news selections of journalists and consumers, as indicated by the high degree of similarity between news selections (62.9% of news selections paired list-wise, while 53.7% of unique stories were the same) and the correlation between journalistic homepage rankings and consumer pageviews/rankings. In this regard also, the second portion of Hypothesis 1 – “Journalistic homepage rankings and consumer clicks will be positively correlated and selections will resemble one another” – is affirmed. However, it is important to note that:

1. The overall between-group rank order correlation level for most newsworthy stories was only .522. This is a moderate correlation.
2. This correlation level is based on rankings for only 62.9% of stories (i.e. those stories which are paired list-wise for each hour and day)
3. While the journalist ranking-consumer ranking R-squared value is .27, this leaves 73% of variance in these two variables unexplained.

Regarding the final portion of Hypothesis 1 – “This correlation and resemblance will increase over the course of a day” – this is supported to the extent that:

1. The news selections of journalists and consumers do increase in resemblance over the course of a day, but

2. The level of association between page views and story rankings (as variables) does not increase over the course of a day, and instead decreases in the evening. Correlations fluctuate somewhat between moderate and strong, but the overall trend is downward.

4.2 Hypothesis 1 – Discussion

4.2.1 The similarity in news selections

The findings for Hypothesis 1 – that the news selections of journalists and consumers matched more than half the time, that consumer page views and journalistic homepage rankings were positively associated and that 27% of change in each variable could be accounted for by change in the other – can be understood in several ways.

Broadly, there are two interrelated influences at play which may explain these findings:

1. On the journalist side, political-economic pressures may be increasing the relevance of consumer clicks to journalistic news selections. The dual effects of difficult market conditions and technological innovation may be causing journalists to change the way make decisions about the news, giving more power to the audience agenda and thereby increasing the similarity of news selections. This is in order to arrest declines in advertising revenue and profits by increasing the appeal of news content to a mass audience.
2. On the consumer side, factors may be leading consumers to actively respond to journalistic selections. The increasing relevance of news to consumer interests and the presence of ‘importance indicators’ may be influencing consumer news selection decisions, leading to an increase in similarity between journalists and consumers.

Given that this research did not explore any causal direction, it is not possible to say which of the supply- or demand-side factors had more of an influence on the results. It may be that journalists (supply) were more causative of the similarity in news selections than consumers. On the other hand, it may be that consumers (demand) were more causative of the similarity in news selections. A likely explanation combines the causative influences of both groups, since journalistic and consumer news selections occur within a feedback loop online (Tewksbury & Rittenberg, 2015).

Whatever the balance of influences, what this research discovered was that there was a relatively close matching of stories between journalists and consumers, with 62.9% of news selections pairing list-wise. A moderate relationship was also found between the news selections of journalists and consumers in terms of the association between consumer page views and journalistic homepage rankings. Further, it was found that this relationship may explain over a quarter of the variance in each of the page view and homepage ranking variables.

In terms of similarity over time, this research found that there was an increase in list-wise matches over the course of a day. In this regard, the news selections of journalists and consumers increased in resemblance over time. This research also found, however, that correlation levels decreased over time – as the day went on, the association between journalistic homepage rankings and consumer pageviews weakened. Potential explanations for these findings will be discussed below.

It must be noted, however, that these are only tentative findings based on a small sample of data. Replication studies with larger samples are encouraged. These studies may also take into account more variables and thus be more fully able to explain online news selections and, in particular, the potentially significant roles of page views and homepage rankings. Indeed, without considering more variables, it is difficult to come to any concrete conclusions about pageviews influencing homepage rankings (and vice versa). This is because there are many more factors at play in news selection decisions than simply these two variables.

Nevertheless, the results of this research do indicate that page views and homepage rankings have a significant role to play in the news selection decisions of journalists and consumers. If 27% of variance in page views can be accounted for by change in homepage rankings (and vice versa), this is significant given the number of potential factors at play.

4.2.2 Supply-side explanations

The findings from Hypothesis 1 about the similarity in news selections between journalists and consumers and the positive association between page views and homepage rankings may be explained by political-economic factors. On the supply side, for journalists, there are economic and technological influences on news selection decisions. Both factors have increased the relevance of consumer interests and clicks to nzherald.co.nz journalists.

Economic factors

In terms of economic factors, at the New Zealand Herald journalists are arguably under pressure to ensure content performs well online. The news outlet's parent company has seen advertising revenues and overall profits decline. Managers, meanwhile, have stressed the importance of increasing audience engagement. In these conditions, it is arguable that journalists at nzherald.co.nz have shifted towards following the audience agenda as a way to increase audience numbers and, in turn, increase advertising revenue. The results for Hypothesis 1 showed that the news selections of journalists and consumers matched list-wise 62.9% of the time. A total of 53.7% of unique story selections matched. Financial pressures may be a cause of this.

Indeed, this is a trend which has been seen in other research. The relevance of consumer news interests to journalistic decision-making has been increased by the financial pressures on news outlets (Vu, 2014; Tandoc, 2014). A need to attract audiences and boost advertising revenue has seen journalists increasingly following consumer selections closely online, with content and placement decisions made accordingly (Anderson, 2011a; Bright & Nicholls, 2014). There are indications that consumer clicks have a stronger impact on journalistic decision-making than the other way around (Lee, Lewis, & Powers, 2015).

In the same way, Herald journalists have arguably started to operate differently, becoming more responsive to consumer clicks as a result of economic pressures. Indeed, it appears that clicks are an influential factor in news content placement decisions at the Herald, with 27% of variance in homepage placements accounted for by consumer pageviews. To some extent, then, it seems that journalists at nzherald.co.nz have relinquished a portion of their agenda-setting and gatekeeping power to consumers. Indeed, this is what Vu (2014) found, with the author observing that “the audience factor has become more influential to online gatekeepers” (p. 1105). It is also what Anderson (2011a) saw when he noted that “editors were clearly adjusting their understanding of ‘what counted’ as a good news story based on the quantified behaviour of website readership” (p. 562).

Generally, in the literature, there is an observed trend of journalists no longer make news selection and placement decisions based simply on traditional news values of the kind described by Galtung and Ruge (1965) or Bell (1991). Instead, clicks have been adopted as a news value – and one with notable influence – because this is seen as necessary for the survival of modern journalism (Tandoc, 2014; Vu, 2014). Following audience interests and aligning the news supply with consumer demand arguably gives journalists a more appealing and profitable product to sell. These trends appear to be playing out on nzherald.co.nz as well – and for the same reasons.

Technological influences

Alongside financial pressures, the availability of technology also arguably increases the influence and relevance of clicks. Research points towards the increased influence of online tracking tools on journalists (MacGregor, 2007; Karlsson & Clerwall, 2013; Anderson, 2011a). Generally, the change which is being witnessed in journalism is the increased relevance of clicks to decision-making. Popularity – as an indicator of the worth and value of a news story – is increasingly important (Anderson, 2011a; Bright & Nicholls, 2014). Changes in daily journalistic practice due to the availability of tracking technology (and because of financial pressures) have been witnessed in newsroom studies in the United States (Anderson, 2011a; Lee, Lewis, & Powers, 2014), Sweden (Karlsson & Clerwall, 2013), and the United Kingdom (MacGregor, 2007; Schlesinger & Doyle, 2015; Bright & Nicholls, 2014). Various, journalists have adjusted the way they make news selection, placement and promotion decisions (Lee, Lewis, & Powers, 2014; Bright & Nicholls, 2014; Karlsson & Clerwall, 2013; Vu, 2014), shifted

their view of what makes a good story (Anderson, 2011a), made changes to the way they allocate resources and follow up stories (MacGregor, 2007), and have altered the way they go about editing, altering, and ultimately selling stories (Karlsson & Clerwall, 2013).

The need to attract audiences and advertising revenue have driven these changes, strengthening the audience agenda (Vu, 2014; Tandoc, 2014). Indeed, Lee et al. (2014) note that “editors today are relying more and more on digital tracking tools to understand the popularity of news items in order to maximise their presentation of content that audiences will be more likely to click on” (p. 519). Consumer clicks, Lee et al. (2014) found, had a larger impact on journalistic decision-making than the other way around.

In the same way, journalistic decision-making at the Herald appears to be influenced by tracking technology. By using tools such as Chartbeat, journalists at nzherald.co.nz are able to track audience interests in real time and match those interests with news outputs. The high level of similarity between the news selections of journalists and consumers is arguably a product of this use of real-time data.

A further consequence of this data input is the apparent ranking of stories based on clicks. The results for Hypothesis 1 show that journalistic homepage rankings and consumer pageviews/rankings are positively correlated, with strong indications of this not being a chance finding. In fact, the results for Hypothesis 1 show clicks informing the homepage placement decisions of nzherald.co.nz journalists to discernible degree, with 27% of the variance in homepage rankings being accounted for by page views. In sum, the similarity in news selections and the level of positive association between journalistic homepage rankings and consumer pageviews/rankings are not chance findings. They are indicative of some technological influence, with the visibility of consumer selections playing a role in journalistic decision-making.

Overall, the influence of clicks is fuelled by the interplay between financial pressures and technological availability. These two factors are arguably behind the rise of clicks as a news value. This is perhaps no surprise in the circumstances. The use of web tools to boost the relevance of top-ranked news stories to consumers has the potential benefit of increasing consumer engagement (Vujnovic, 2011; Schlesinger & Doyle, 2015) and the collateral advantage of allowing producers to align journalistic, consumer and advertiser interests. As Tewksbury and Rittenberg (2015) point out, “A close match between audience interests and content means that advertisers can...do a better job of targeting their products” (p. 36). They add that, “The relevancy of niche content advertising is a clear improvement over broad content...Content matching means that advertisements are more likely to be successful” (p. 36).

Thus, since journalism is still financially dependent on advertising for its survival, tracking online traffic and making decisions accordingly may now be the most viable way to stay afloat in the digital environment (Tandoc, 2014). This input of valuable information from tools such as Chartbeat allows for the commodification of consumer clicks, allows the sale of this consumer

attention to interested advertisers, and provides a theoretical path to sustainable revenue generation.

The issue that arises, however, is that media outlets such as the Herald “may begin to function differently as they seek to capitalize on the new commodity” (Van Couvering, 2011, p. 192). Journalistic routines and operations change as increased focus is placed on attracting and selling digital audiences (Anderson, 2011a). No longer is journalism about living up to professional ideals and serving consumers with public affairs information, but about selling news, selling audiences and generating revenue.

Indeed, it is becoming increasingly obvious that when reliance is placed on the commodification and sale of online traffic for economic survival, there is a change in the supply-demand chain of news. When gaining and retaining page views is an organisational goal, there is a shift in emphasis from attracting consumers to content to making content attractive to consumers (Van Couvering, 2011). As Van Couvering (2011) points out, for online content producers, “the problem is not so much getting content to your audience...but audiences to your content” (p. 190). The top-down model of journalistic supply and consumer demand is therefore broken down online, with consumers gaining more power and influence.

At the Herald, the situation appears to be no different – as the data shows. In fact, as evidence of NZME’s approach to commodification, chief executive Jane Hastings has explicitly stated that the company’s focus is on the sale of audiences to advertisers – “We are about selling audiences – leveraging the power of the many channels that we can connect with these audiences and delivering results for our clients” (“NZME makes commercial leadership changes”, 2015, para. 4). Further, Hastings says that NZME “is focused on how we commercialise our specialist content including business, sport, entertainment, food and lifestyle across all platforms”, adding that a goal of NZME is to “[ensure] that we have the people in place to commercialise the audience numbers that our news, sports and entertainment content is attracting” (“NZME makes commercial leadership changes”, 2015, para. 12).

Thus, it can be seen that those in charge at NZME have placed focus on heightening the commercial value of news content. This has meant making use of tracking technology and placing an emphasis on audience interests. This emphasis placed by NZME on the quantification and measurement of audiences and their interests (Anderson, 2011a), alongside the effects of real-time analytics (MacGregor, 2007), has the apparent result of introducing clicks as a news value in the Herald newsroom. This fact shines through in the data. As Turow (2005) argues, in a world where mass media are advertiser-supported, “creators at all levels realize that the material [produced] must be successful in attracting audience that advertisers want and putting the audience in a mood that makes them maximally persuadable to the sales pitches” (p. 106). By matching nzherald.co.nz’s most newsworthy content closely with audience interests (expressed through clicks), journalists working on the website are better able to achieve this goal.

In terms of the increase in similarity of news selections over time, this is perhaps a result of the aggregation of data throughout the day. As more data is collected in real time by nzherald.co.nz journalists (using Chartbeat) and fed through the newsroom hour by hour, a profile of audience interests is built up. This profile of interests can be used to make news selection decisions – and the more data available, the more focused these decisions can be. Thus, the cumulative effect of this collected data may be the increased similarity in news selections over time. Indeed, Lee et al. (2014) found that the strength of the effect of clicks on news placements increased over the course of a day. As more data came through from consumers, the impact on journalists grew, the authors discovered. This fact lends support to the findings here.

Also relevant may be the production routines of the Herald. Early in the morning, copy which appears in the just-published print edition of the Herald is typically posted online. This mass posting of paper content may contribute to the dip in agreement between journalists and consumers at 7 am, with content decisions being made without specific reference to the audience. As new copy is written throughout the day and posted online, the level of agreement increases. This suggests news selection decisions are being made with reference to audience interests. Thus, the production routines of the Herald may be contributing to increasing journalist-consumer agreement over time. Such a link between production processes and levels of agreement cannot be proven here, however, and would require further qualitative research.

Further research would also be required to probe the peaks and troughs seen in levels of similarity throughout the day – perhaps by observing newsroom practices ethnographically. It may be that newsroom routines (meetings, shift changes, meal breaks) have an impact on the data, but this is something which can best be assessed qualitatively.

At the same time, the level of correlation between journalistic homepage rankings and consumer pageviews/rankings did not increase over the course of the day. Instead, there was a downward trend. An explanation for this may be that the high level of list-wise agreement cancelled out the need on the part of journalists to match stories in terms of their relative rankings. In other words, it may not have mattered to Herald journalists what the specific rankings assigned to stories were, given that more than half the time the same stories appeared on both consumers' and journalists' top lists. Matching rankings would arguably be unnecessary given that the two lists already matched to a significant degree.

Thus, the decline in association between these two variables (consumer pageviews and journalistic homepage rankings) may be a product of journalists ignoring rankings since news selections already matched up to a significant degree. This explanation is only speculative, however, and any further exploration of this possibility would perhaps be best done qualitatively.

Implications

For journalists and online news content, the implications of these research findings are twofold. First, complications arise for journalistic gatekeeping and agenda-setting. Where once journalists may have had tight control on the news that was produced and disseminated to the public (Gans, 1979), it now appears as if the gatekeeping and agenda-setting roles of journalists have been undermined. Journalists are no longer able to exercise as much control over consumers as they once did because consumers are no longer bound by medium-specific limitations (Boczkowski & Mitchelstein, 2013). The ability to access news, information and entertainment anywhere at any moment and to shift attention away from one source to another in an instant puts power in the hands of consumers. Journalists are forced to follow the lead of consumers in order to keep up. This means, however, catering to specific consumer interests and, to some extent, forgoing journalistic independence (Tandoc, 2014). Changes in journalistic practice are, in part, due to a shifting power relationship between journalists and consumers brought on by organisational and financial pressures (Schlesinger & Doyle, 2015; Vu, 2014; Anderson, 2011a).

As a result, there are suggestions that rather than being gatekeepers, journalists in the digital age are becoming gatewatchers (Bruns, 2005). Professional norms are being altered as journalistic decision-making is increasingly focused on the tracking and measurement of audiences (Anderson, 2011a). Anderson (2011a), in his study of online newsrooms, observed that “news consumers were increasingly being discussed as creative, active participants in the news-making process that needed to be simultaneously empowered, catered to, and captured for analytical measurement purposes” (p. 564). There is no reason to believe the power and influence of audiences will not increase further as communication technology continues to develop and as news outlets strive to maintain the attention of audiences. What might be seen is an even closer matching between journalistic and consumer news selections – perhaps even “algorithmic journalism”, where consumer interests are entirely catered to (Anderson, 2011b, p. 540) – as news outlets try to stay afloat.

Nevertheless, there are indications that journalists are adapting to the new environment and moderating the impact of web tracking technology. Indeed, Karlsson and Clerwall (2013) point to the role audience measurement might play in improving journalism:

If an important news story is not receiving user attention, journalists have done something wrong. Without an indication that something is wrong, the problem cannot be addressed. Thus, clicks can be utilised as a tool to make sure important issues reach the audience (p. 73).

Meanwhile, MacGregor (2007) points to journalists adopting clicks as a news value alongside other professional news values and not abandoning editorial independence. For example, MacGregor (2007) notes that tracking tools are used to assess news trends and guide the

allocation of resources to future stories. Although there is increased self-awareness and second-guessing of decisions, there is “not yet a displacement of traditional ways” (p. 294).

Overall, journalists’ professional news judgement is still considered a vital asset, as it is used to initially select the news, interpret the clicks, make changes, interpret if/how the clicks are changing and, most importantly, to balance the click input against other factors (Karlsson & Clerwall, 2013, p. 73).

Second, the research findings have implications for public service journalism. As focus is increasingly placed on the soft news interests of consumers, the amount of public affairs news on offer may decrease. And if journalists continue to match news outputs with this type of soft consumer demand, this potentially leaves consumers with a public affairs information deficit. McManus (1994) argues that “the fundamental purpose of journalism is to maximise the public’s understanding of its environment” (p. 169). Yet, there are indications that consumers actively avoid public affairs news content (Boczkowski & Mitchelstein, 2013). And if journalists continue to cater to consumer disinterest in public affairs news and fail to supply information necessary to inform citizens about the society in which they live, this is arguably a failure of the journalistic mission (McManus, 1994).

4.2.3 Demand-side explanations

The findings from Hypothesis 1 may also be explained by political-economic factors related to consumers. On the demand side, consumer agency, site structure and habits are relevant factors which may explain the similarity in news selections between journalists and consumers and the association between page views and homepage rankings.

Consumer agency

In terms of agency, there may be a close relationship between the news selections of journalists and consumers because of an ideal alignment between the interests of active consumers and the journalism on nzherald.co.nz.

Generally, the proliferation of news outlets online means consumers can always find a site which matches their particular interests (Tewksbury & Rittenberg, 2015). There is an ability, then, because of the nature of the internet, for consumers online to seek out only that information which appeals to them and to ignore the rest. Tewksbury and Rittenberg (2015) note that there is evidence of consumers basing their website selection decisions on expectations of what they will find when they are there. What this may mean in terms of the relationship between journalistic and consumer news selections on nzherald.co.nz is that there is close matching simply because the right consumers have sought out the right news website that appeals to them. Put another way, it might be argued that a particular set of consumers have found the news website (nzherald.co.nz) that most closely aligns with their preferences,

resulting in an ideal match between consumer interests and journalistic outputs. It may be this expression of consumer agency which goes some way to explaining the research findings.

Indeed, Boczkowski (2010a) points to the “high level of agency” expressed by consumers in their online news selections (p. 154). Curtain, Dougall and Mersey (2007) also identify “active news-seeking behaviour” among consumers online (p. 32). This high level of agency, fed through a high-choice medium, has the result of encouraging specialisation among consumers and an alignment between supply and demand (Boczkowski & Mitchelstein, 2013; Prior, 2005; Tewksbury & Rittenberg, 2015). This specialisation may, to an extent, be causative of the similarity between journalistic and consumer news selections. Simply put,

If sites successfully create targeted news and audiences successfully pursue their topics of interest, the result can be a highly functional fit between content and audiences (Tewksbury & Rittenberg, 2015, p. 67)

At the same time, however, the results of this research might point to a lack of agency among nzherald.co.nz readers. Those who visit the site appear to largely select front page views stories, sticking to these articles rather than going beyond them to other sections of the site. This is what the data suggests with the high level of list-wise agreement between journalists and consumers. Curtain, Dougall and Mersey (2007), when they spoke of “active news-seeking behaviour” among consumers (p. 32), identified a negative correlation between journalists’ top stories and consumers’ most recommended stories. This suggested consumers were going beyond front page stories to read articles buried in subsections of the site. That does not appear, based on the data, to be occurring as frequently on nzherald.co.nz. In this regard, there is some evidence of a lack of agency. But this is only what *appears* to come from the data. Indeed, given the two-way relationship between journalists and consumers, the close matching may not be evidence of a lack of agency among consumers at all, but rather evidence of journalists closely matching their top news stories with those clicked on most by consumers. A definite conclusion regarding this cannot be drawn, however.

Site structure and consumer habits

The close relationship between the news selections of journalists and consumers on nzherald.co.nz may also be explained by site structure and consumer habits. Site structure and the presence of importance indicators on news websites have been seen to be relevant factors shaping the news selections of consumers (Tewksbury & Rittenberg, 2015; Thorson, 2008). Those stories at the top left of a news page (such as those ranked 1-14 on the nzherald.co.nz site) are more likely to garner attention from consumers because they are prominent (Tewksbury & Rittenberg, 2015; Boczkowski & Mitchelstein, 2013). They may also carry with them suggestions of importance or newsworthiness because of their prominent placement, in the same way front page newspaper stories do (Althaus & Tewksbury, 2002).

Thus, the way the nzherald.co.nz website is set up – with a set of top stories ranked and placed prominently on the homepage – may be a contributing factor to news selection similarity. It is also relevant to note here that the Herald's mobile website (m.nzherald.co.nz) features these top 14 ranked stories as the first and only stories available to see, perhaps further increasing the likelihood of them being clicked on. The page view data used in this research includes mobile page views as well as desktop page views. Thus, the layout of m.nzherald.co.nz may play a role in the overall findings, with consumers being lead to click on the top 14 stories because of their ready availability.

Indeed, Boczkowski (2010b) observes that readers, on their first visit to a news website during the day, typically scan through the main stories on a news website, reading headlines and clicking on stories they find interesting. During subsequent visits, consumers also focus on top stories – “they frequently concentrate on the top screen of the homepage” (Boczkowski, 2010b, p. 477) – and tend to look for articles which are new or which have been updated since the last visit. This type of consumer behaviour, with readers focusing on main stories during first and subsequent website visits may, to some extent, account for at least some of the similarity in news selections between journalists and consumers. This is because such readership data is fed into newsrooms via web tracking tools, fuelling the feedback loop between consumer clicks and journalistic homepage placements.

This consumer behaviour may also explain why journalistic and consumer news selections increase in similarity throughout the day. As the day goes on and consumers make more subsequent visits to nzherald.co.nz for breaking news and updates, a profile of consumer interests builds up. These consumer interests would, according to Boczkowski's (2010b) observations about consumer behaviour, indicate a strong preference for top-ranked stories. Journalists would then act based on this information. Thus, this data may have the effect of increasing news selection similarity over time by fostering the connection between clicks and homepage placements.

Overall, taking into account these site structure considerations, stories placed in top positions on nzherald.co.nz (and m.nzherald.co.nz) are more likely to end up on both consumers' and journalists' 'top story' lists. As consumers click on these top stories, information is fed back to journalists via web tracking tools, allowing journalists to make adjustments to the homepage accordingly, fuelling a cycle of selections that centres on the same set of articles. This process arguably explains both the similarity in news selections and the correlation between journalistic homepage rankings and consumer clicks.

In this regard, it can argued again that there are similarities between the news selections of journalists and consumers simply because news outputs are now more responsive to consumer interests and consumers are receptive to this journalistic behaviour. Consumers, according to Meijer (2012), value participation, representation and presentation when it comes to news. When journalists at nzherald.co.nz, using tools such as Chartbeat and comScore, take

consumer clicks into account when making decisions, this entails a certain level of consumer participation. Consumer-centred news can also, as Boczkowski (2004) suggests, increase representation, with journalists expanding the number of perspectives adopted on a range of issues as a way to draw in key demographics. Further, presentation is optimised with the most relevant stories to consumers being promoted on the nzherald.co.nz homepage. The culmination of this is a news menu that is well-tailored to consumer interests and which encourages engagement with those news stories ranked highly on the nzherald.co.nz homepage.

Implications

The implications of these research findings for consumers could be positive or negative. On the negative side, as noted, the close matching between the news selections of journalists and consumers could see an overall reduction in the supply of public affairs news. A cutback in this news supply is arguably not beneficial to the public, since it means a limitation of access to information which might be required in the performance of civic obligations.

Nevertheless, there is an argument, as Graber (2004) points out, that “the quantity and quality of news that various media venues supply collectively is adequate for citizenship needs, especially since it is clear that citizens can perform their political obligations effectively on a low-information diet” (p. 563). Indeed, the proliferation of news sources online means that more information is available than ever (Tewksbury & Rittenberg, 2015) and interested consumers are able to seek out all the public affairs news they wish, if that is their desire (Prior, 2005). The flip side of this freedom of choice, however, is that consumers are also better able to avoid public affairs news online. In any case, there is the argument that it does not matter whether the Herald supplies this public affairs information or not, as this information is still available somewhere.

On the positive side, there is an argument that a close matching between news supply and demand is an example of cultural democratisation that benefits consumers by giving them access to information which is useful to them in their everyday lives. (Beam, 2003; Gans, 1979). It is this democratisation of the news-making process which may be beneficial to consumers and to journalism at the end of the day (Boczkowski, 2004; Beam, 2003). Consumers having more influence over the production and dissemination of news may increase the value of the product to the consumers themselves. As Beam (2003) argues:

In relying more on readership research to fathom audience concerns and interests, market-driven newspapers may be discovering that the information readers feel that they need to be good citizens or to cope with the central concerns of their lives may not be the traditional content intended for the public sphere...Perhaps market-driven newspapers are revising the definition of what constitutes public-service journalism. (p. 382).

In this light, the matching of the journalistic news supply with consumer demand can be seen as a positive for the public sphere. Boczkowski (2004) argues that “a trend toward more user-centred online news could de facto deepen the “civic” or “public” journalism movement” and he further observes that,

The growing influence of marketing and advertising personnel, usually sensitive to the preferences and needs of consumers, may also, directly or indirectly, add to a heightened user centeredness of news online. The aggregate effect may be an expansion in the news available to the users of a site, in terms of both events covered and perspectives adopted on any topic. (p. 185).

At the same time, however, there are still concerns about the true quality of consumer interests and questions about the extent to which consumers actually engage with important issues (Boczkowski & Mitchelstein, 2013). A potential outcome of matching journalistic outputs with consumer interests is the removal of large amounts of public affairs information from the public sphere. And without an adequate supply of public affairs information, there is no opportunity for any consumer – whatever their preferences at any moment in time – to engage. Following popular interests in this way is arguably beneficial to no one.

Further, in terms of the implications of consumer behaviour for the production and dissemination of news, there is first the potential for increased site specialisation and segmentation. Active consumers seeking out their own news preferences are a factor which may prompt online news sites such as nzherald.co.nz to follow consumer behaviour with increasing care because of the need to keep and hold consumer attention. The availability of big data also may push news outlets such as the Herald towards increasing specialisation and the targeting of specific consumer demographics that bring with them the most disposable income. The amount of data available about consumer interests is a potential driver of this. And media organisations in a competitive market are incentivised to make use of this information to find an edge (Turow, 2005). Indeed, web tracking tools can be used to identify key audience segments and track their behaviour. The data collected can be used in targeting these key audience segments, with the potential result being even more matching between consumer news interests and journalistic outputs.

This type of audience surveillance may mean news sites increasingly only targeting those audience demographics which are the most lucrative, however, with minority or low-income consumers excluded from the equation (Biltereyst & Meers, 2011). This would run counter to Boczkowski’s (2004) theory that consumer-centred news might increase representation. Indeed, political-economic theory points to the segmentation of and discrimination between audiences. Biltereyst and Meers (2011) note that ethnic minorities are likely to be excluded from or devalued in the process of audience commodification and the subsequent sale of audiences to advertisers because such audiences are not as valuable in terms of spending power. Racial or

ethnic groups with more spending power are more attractive to advertisers in this raw economic equation.

Consumer behaviour may also, at the same time, see journalists increasingly focusing only on stories which are popular. With consumers expressing agency and following their own news interests, there is, again, the risk that news content will become increasingly informed by clicks (Vujanovic, 2011). At the same time, a lack of consumer agency may also have this effect. Consumers focusing only on the top-ranked stories on a news homepage may, as noted, foster that connection between homepage rankings and clicks and fuel the feedback loop between journalistic and consumer news selections. The result, again, would be consumer-focused news that is informed by clicks.

In any case, the nature of the online medium facilitates a closer relationship between the two groups and Tewksbury and Rittenberg (2015) point out that the two-way relationship between journalists and consumers online is leading to a convergence of news supply and demand. Whether this convergence of news interests really is a positive or negative for the journalistic profession and the representation of consumers is a question for further research, however.

4.3 Hypothesis 2 – Results and findings

Hypothesis 2a: Consumers will select proportionally more soft news and non-public affairs news stories than hard news and public affairs news stories. Journalists will select proportionally more hard news and public affairs news stories than soft news and non-public affairs news stories.

Hypothesis 2b: There will be a gap between the news selections of journalists and consumers. Consumers will select proportionally more soft news and non-public affairs news stories than journalists. Journalists will select proportionally more hard news and public affairs stories.

Hypothesis 2 looks specifically at the news selections of journalists and consumers and seeks to compare them in terms of the number of soft/hard news stories and public affairs/non-public affairs stories. Before that comparison is made, however, the thematic nature of news selections for journalists and consumers will be assessed separately. An analysis of the news selections for each group has been conducted using unique stories only (consumers = 662, journalists = 569) as well as all data points for each group (2 x 2,240), including repeated cases.

Other aspects of the data have also been explored, including how particular story topics were specifically ranked on the top 14 lists and which stories were most popular overall (across all sampled days) with both journalists and consumers. Such analyses provide additional context for the discussion of findings.

4.3.1 Journalistic news selections

News topic selections

Overall, based on the sample data, the top news selections of journalists on nzherald.co.nz can be seen to be dominated by Sports and World news stories. Of the unique stories selected by journalists as being the most newsworthy across the sampled days, 19.5% were about Sports and 14.8% were about World Affairs. These were by far the two largest categories. Sports received more than double the number of top story selections as the Business, Crime, Government, Entertainment and Social Issues categories. In fact, Sports received more top story selections than the Weather, Science, Lifestyle and Opinion categories combined. The only news topic category close to Sports was World Affairs, which still fell 4.7% behind (based on unique story selections). Interestingly, World Affairs received more top story selections than all domestic news categories (Government, Social Issues, Crime, Business, Weather, Accident). Indeed, World Affairs stories had noticeably more selections than the Government and Politics category as well as the Social Issues category. Table 6 shows number and proportion of most newsworthy stories selected by journalists for each news topic category across all days (both 'unique story' data and 'all data').

Table 6: Journalists' news topic selections

News Topic	Unique Stories %	All Data %	Difference
Sports	19.5 (n = 111)	18.2 (n = 407)	-1.3
World Affairs	14.8 (n = 84)	15.5 (n = 347)	+0.7
Business and Economics	9.1 (n = 52)	9.9 (n = 222)	+0.8
Crime	8.4 (n = 48)	8.6 (n = 193)	+0.2
Government and Politics	8.4 (n = 48)	7.9 (n = 177)	-0.5
Entertainment	7.7 (n = 44)	7.5 (n = 168)	-0.2
Social Issues	7.4 (n = 42)	7.4 (n = 166)	--
Odd and Viral	5.8 (n = 33)	5.8 (n = 131)	--
Accident and Emergency	5.6 (n = 32)	6.1 (n = 136)	+0.5
Opinion	4.6 (n = 26)	5.2 (n = 117)	+0.6
Other	3 (n = 17)	2.1 (n = 46)	-0.9
Science	2.8 (n = 16)	2.7 (n = 60)	-0.1
Lifestyle	1.9 (n = 11)	2.2 (n = 50)	+0.3
Weather	0.9 (n = 5)	0.9 (n = 20)	--

Journalists' focus on Sports and World Affairs was followed by a focus on Business and Economics news at 9.1% of unique selections, Crime at 8.4%, Government and Politics at 8.4%, Entertainment at 7.7% and Social Issues at 7.4%. Weather (0.9%), Lifestyle (1.9%) and Science (2.8%) were among the least-favoured news topics for journalists (looking at unique story selections). These news topics together only represented a small fraction of top journalistic news selections, falling well-below what might be expected if selections were apportioned evenly across all news topics (around 7% for each category). Meanwhile, Sports and World Affairs far exceeded what might be expected. Crime, Government, Entertainment and Social Issues fell around the centre.

Looking at both 'unique story' figures and 'all data' figures, a handful of news topics dominated the top news selections of journalists. Sports and World Affairs stories together accounted for over 30% of all top journalistic news selections (34.3% for 'unique stories', 33.7% for 'all data'), with Business and Crime news pushing this number to over 50% (51.8% for 'unique stories', 52.2% for 'all data'). Thus, four news topics took over half of all top 14 positions during the study period.

Regarding the differences between topic proportions for 'unique story' data and 'all data' (reported in Table 6), it can be seen that they were minimal, with only small deviations for Sports, World Affairs, Business and Economics, Government and Politics and Opinion stories. The proportion of Sports stories on the 'most newsworthy' list decreased from 19.5% to 18.2% between the 'unique story' and 'all data' datasets, indicating a slightly lower rate of repeated selection across hours for Sports stories. Meanwhile, the proportion of World Affairs stories on the 'most newsworthy' list increased from 14.8% to 15.5% between the 'unique story' and 'all data' datasets, indicating a slightly higher rate of repetition across hours for these stories. The proportion of Business and Economics news shifted somewhat (9.1% for 'unique stories' and 9.9% for 'all data'), as did the proportion of Government and Politics news (8.4% to 7.9%) and Opinion content (5.8% to 5.2%). Thus, there were slightly higher levels of repeated selection for Business and Economics stories and lower levels of repeated selection for Government and Politics and Opinion stories. The differences in 'unique story' and 'all data' proportions were not large, however.

News topic rankings

Interestingly, despite news about Government and Politics, Entertainment, Social Issues and Crime receiving similar levels of attention from journalists, the particular way these story topics were ranked by journalists differed. Government and Politics stories were more likely to be placed in the top position on the nzherald.co.nz homepage as compared to Entertainment, Crime and Social Issues stories. A total of 11.3% of all Government and Politics stories were ranked 1 over the period of study, compared to only 4.2% of Entertainment and Social Issues stories. Of all Crime stories, 9.3% were placed in the top position.

An analysis of the apportionment of story topics across the different rankings (1-14) perhaps reveals the political and social importance placed on the top story position. No Lifestyle stories were placed in the top position over the study period and only 2.3% of Odd and Viral stories were placed in this spot. Meanwhile, 11.3% of all Government and Politics stories reached the top position. Overall, referring to Table 8, trends can be witnessed among the Lifestyle, Odd and Viral, Entertainment and Science categories, with few stories reaching high rankings. There are also trends among the Government and Politics, Accident and Emergency, Crime and Weather categories, with these topics having larger numbers of stories among the top rankings.

Broadly, an analysis of the top story position on nzherald.co.nz shows that this spot is largely reserved for hard and breaking news stories, controlling for the high proportion of Sports stories taking this spot (a total of 23.8% of all top-ranked stories were Sports stories). Thus, while Sports took 23.8% of all rank 1 placements, World Affairs was the next largest category in the top spot (17.5%), followed by Government and Politics (12.5%), Crime (11.3%) and Accident and Emergency news (8.8%). Again, no Lifestyle stories appeared in this position, but nor did any Science stories. Table 7 shows a breakdown of this data.

Table 7: Apportionment of topics across top ranks
(journalists)

Topic	% of Topic in Rank 1	% of Rank 1
Accident	10.3%	8.8%
Business	5.4%	7.5%
Crime	9.3%	11.3%
Entertainment	4.3%	4.4%
Government	11.3%	12.5%
Lifestyle	0.0%	0.0%
Odd	2.3%	1.9%
Opinion	6.0%	4.4%
Other	8.7%	2.5%
Science	0.0%	0.0%
Social Issues	4.2%	4.4%
Sports	9.3%	23.8%
Weather	10%	1.3%
World	8.1%	17.5%

Further to this analysis of top ranking positions, Table 8 shows the proportion of each news topic occupying the top 6 positions on journalists' 'most newsworthy' list (based on all journalist data, n = 2,240). The top sports (1, 2 and 3) were dominated by Sports and World Affairs. And interestingly, while Accident and Emergency news and Government and Politics news ranked lower overall (in terms of unique story selections), they ranked higher among the top positions on the 'most newsworthy' list.

Table 8: Apportionment of topics across top 6 ranks (journalists)

Topic	Rank 1 %	Rank 2 %	Rank 3 %	Rank 4 %	Rank 5%	Rank 6 %
Sports	23.8	19.4	21.3	17.5	16.3	16.9
World	17.5	18.8	19.4	13.8	12.5	17.5
Government	12.5	8.1	8.8	11.9	6.3	5.0
Crime	11.3	11.3	8.8	14.4	10.6	9.4
Accident	8.8	9.4	5.0	6.3	3.1	3.1
Business	7.5	7.5	8.8	7.5	16.3	9.4
Entertainment	4.4	11.3	9.4	7.5	10.0	8.8
Opinion	4.4	1.3	3.8	4.4	3.8	6.3
Social Issues	4.4	6.9	5.6	6.3	8.8	8.1
Other	2.5	0.6	1.3	0.6	0.6	0.0
Odd	1.9	2.5	4.4	6.3	8.8	5.6
Weather	1.3	1.9	1.9	0.6	1.3	0.6
Lifestyle	0.0	0.6	1.9	0.0	0.0	4.4
Science	0.0	0.6	0.0	3.1	1.9	5.0

Overall, with regard to rankings, hard and breaking news topics such as Government and Politics, Accident and Emergency and World Affairs took up higher proportions of top ranks. For example, 12.5% of rank 1 stories were about Government and Politics, with this proportion dropping to 5% of rank 6 stories. Again, this breakdown of data perhaps indicates the importance placed on the top story positions by journalists at nzherald.co.nz, with hard news stories being pushed up rather than down the top 14 list. Meanwhile, soft news topics such as Entertainment and Odd and Viral news took up higher proportions of lower ranks. For example, Odd and Viral news took up only 1.9% of rank 1 stories, but 8.8% of rank 5 stories and 11.3% of rank 13 stories. Sports remained an outlier.

What the data generally shows is that certain topics (Sports, World Affairs, Government and Politics, Crime) were consistently among the 'most newsworthy' stories for journalists, generally attaining higher rankings on the top 14 list. Meanwhile, while some news topics (Science, Opinion, Lifestyle, Weather) only occasionally made the top 14 'most newsworthy' list and were ranked low when they did.

Context

In terms of context, as noted, the sample period saw a number of major events happen. These events are likely to have impacted the data. Table 9 shows the top overall stories for journalists during the sample period. This list of stories was produced by assigning scores to each story in the 'all story' dataset for journalists (2,240 stories) based on that story's ranking on the 1-14 'most newsworthy' list. Top-ranked stories were assigned a score of 14, second-ranked stories a score of 13, and so on. Total scores for each unique story were counted, producing a list of news articles that were ranked highest and most frequently selected by journalists.

Table 9: Top overall stories for journalists

Position (Score)	Headline	Topic
1. (209)	Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'	Sports
2. (163)	Leaked plans for Auckland suburbs: Will apartments be built in your backyard?	Government
3. (119)	Why did this couple gun down workers?	World
4. (113)	'The last thing I want to do is upset Jeremy Clarkson' - Businessman who revealed presenter's 'bizarre demands' apologises	Entertainment
5. (112)	NZ teen's billionaire backer	Business
6. (111)	The best news bloopers of 2015	Odd
7. (111)	Guards storm Christmas Island detention centre	World
8. (106)	Peter Jackson to pump millions into NZ's \$134m blockbuster plan	Government
9. (104)	'Before I could even say anything - chop!' The moment machete hit	Crime
10. (102)	Charlie Sheen faces lawsuits as ex-girlfriend Bree Olson claims he 'never said a word' about being HIV positive	Entertainment
11. (100)	Christopher Niesche: The rise and fall of Dick Smith	Opinion
12. (99)	Family question possible 'motive' behind death of Australian tourist	Accident
13. (98)	All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating	Sports

	loss for our family'	
14. (97)	School captain's scathing farewell speech: 'Today's schools are run more like businesses'	World
15. (97)	All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'	Sports

The top story for journalists over the sample period was about the death of Jonah Lomu. In fact, two of the top 15 stories were about the former All Black's death - indicative of the magnitude of this news event. Indeed, looking specifically at all the top Sports stories in the sample, 11 of the top 20 stories in the Sports category were about Jonah Lomu. His death, therefore, had an appreciable impact on the data. Similarly, the retirement of All Black captain Richie McCaw and other All Blacks stories had a noticeable impact on the Sports data, with these stories rounding out the top Sports list.

Table 10: Top Sports stories for journalists overall

Score	Headline
209	Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'
98	All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating loss for our family'
97	All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'
85	Wellington rugby player dies soon after All Blacks take Webb Ellis Cup to his bedside
76	All Blacks legend Jonah Lomu dominated rugby like no other
72	Jonah Lomu's \$1.5 million property deal with his father-in-law
69	Jonah Lomu memorial: John Campbell's tribute to family's strength - 'We all feel loss but the most immense loss is yours'
68	Richie McCaw on the day he experienced the Jonah Lomu effect on fans
66	Jonah Lomu memorial: 'Number 11, our hero in heaven' - Children's tribute gets crowd clapping and singing
63	Live: Black Caps v Australia

Alongside stories about Jonah Lomu and the All Blacks, a number of stories about ongoing issues such as global terrorism, Auckland's housing market, and prisoners on Christmas Island, also had a notable impact on the data. These major events and issues together accounted for 15 of the top 50 stories on nzherald.co.nz for the sample period.

Regarding the stories in Table 9, it can be seen that journalists' top stories overall were evenly split between hard news stories about public affairs and major issues or events – housing plans in Auckland, the San Bernardino terror attack ("Why did this couple gun down workers?") and unrest on Christmas Island – and soft news stories – Jeremy Clarkson's feud with an Auckland business owner, the best news bloopers on 2015, Charlie Sheen's HIV diagnosis and All Black captain Richie McCaw's retirement.

Looking at specific categories further, the data shows that of the top World Affairs stories in the journalist sample, 9 of the top 20 overall were terror-related (about ISIS, the San Bernardino

terror attack and the Paris terror attacks). Meanwhile, the Entertainment category was dominated by stories about Charlie Sheen and Taylor Swift, the Government and Politics category by stories about the Prime Minister and the Business category by stories about the property market. Table 11 provides a snapshot of these top stories.

Table 11: Top World, Entertainment, Government, Business stories for journalists overall

Topic	Headline
World	<ol style="list-style-type: none"> 1. Why did this couple gun down workers? 2. Guards storm Christmas Island detention centre 3. School captain's scathing farewell speech: 'Today's schools are run more like businesses' 4. Former King's College prefect killed in Rarotonga 5. Heavy gunfire in Paris suburb
Entertainment	<ol style="list-style-type: none"> 1. 'The last thing I want to do is upset Jeremy Clarkson' - Businessman who revealed presenter's 'bizarre demands' apologises 2. 'He's a monster' - Charlie Sheen faces lawsuits as ex-girlfriend Bree Olson claims he 'never said a word' about being HIV positive 3. Why Kim Kardashian and Kanye West's new baby Saint West is breaking New Zealand law 4. Why weather presenter Karen Olsen really left TVNZ - weekends 5. 'I am in fact HIV Positive'
Government	<ol style="list-style-type: none"> 1. Leaked plans for Auckland suburbs: will apartments be built in your backyard? 2. Peter Jackson to pump millions into NZ's \$134m blockbuster plan 3. John Key accuses Labour of 'backing rapists' 4. John Key: Drug abuse major contributor to child poverty 5. John Key cabinet reshuffle: Judith Collins to return as Corrections and Police Minister
Business	<ol style="list-style-type: none"> 1. NZ teen's billionaire backer 2. Property Report: The house price puzzle - where it's heading 3. The secret to Zappos' success: No managers 4. Interactive: Discover Auckland's million dollar suburbs 5. Too middle class for a mortgage: Broker claims 'nanny state' banks turning down families with high spending

News focus selections

In terms of story focus, top journalistic news selections were dominated by non-public affairs news stories. Over 70% of all top journalistic news selections over the sample period were non-public affairs news stories. These were stories which did not have relevance to the wider public sphere or body politic. Meanwhile, around 30% of 'most newsworthy' selections were public affairs stories. These stories did have relevance to the wider body politic and dealt with issues of social, political and economic importance.

Table 12 shows the proportions of public affairs and non-public affairs stories for both the 'all data' (n = 2,240) and 'unique story' (n = 569) lists.

Table 12: Journalists' selections by news focus

Focus	Unique Stories %	All Stories %	Difference
Public Affairs	29.3	29.9	+.6
Non-Public Affairs	70.7	70.1	-.6

There were no major differences between the proportions in each list, with a 70/30 split across each.

News focus rankings

This 70/30 divide between public affairs and non-public affairs news stories was also relatively consistent across rankings for these story types. For each of the 1-14 ranked positions, non-public affairs news was present around 70% of the time. Table 13 shows the proportion of public affairs/non-public affairs stories assigned to each homepage rank.

Table 13: Ranking of PA and NPA stories by journalists

Rank	Non-Public Affairs %	Public Affairs %	Difference
1	65.6%	34.4%	-31.2
2	74.4%	25.6%	-48.8
3	67.5%	32.5%	-35
4	70%	30%	-40
5	71.3%	28.7%	-42.6
6	71.9%	28.1%	-43.8
7	75%	25%	-50
8	68.8%	31.2%	-37.6
9	71.9%	28.1%	-43.8
10	70%	30%	-40
11	66.9%	33.1%	-33.8
12	69.4%	30.6%	-38.8
13	71.3%	28.7%	-42.6
14	68.1%	31.9%	-36.2

Trends for news focus rankings followed those for topic rankings. Notably, while there was general consistency between the 14 rankings, just over 65% (65.6%) of stories ranked 1 were non-public affairs stories, with 34.4% being public affairs-related. Compared to the proportions for rank 2, there was a marked difference. Again, this perhaps shows the importance placed on the top story positions. Indeed, there was an 8.8% increase in public affairs stories between rank 2 and 1 (with 25.6% and 34.4% of stories respectively). Thus, as was seen with 'story topic', there is again some indication that the top position on nzherald.co.nz (rank 1) is reserved for more political and public affairs oriented news. Meanwhile, the other ranks varied somewhat but generally centred around a 70/30 divide.

Conclusion

Regarding the relevant portion of Hypothesis 2a – “journalists will select proportionally more hard news and public affairs news stories than soft news and non-public affairs news stories” – this does not find support in the results. Journalists at nzherald.co.nz do not select proportionally more hard and public affairs news stories than soft news non-public affairs news stories. Grouping news topics together under broad 'soft news' and 'hard news' headings - with reference to the political and social relevance of these topics (Reineman et al, 2011) - it can be seen that journalists, in fact, select proportionally more soft news stories. Total soft news selections (Sports, Crime, Entertainment, Odd and Viral, Accident and Emergency, Opinion, Lifestyle, Weather) reached 54.4% of all journalistic selections, while total hard news selections (World Affairs, Business and Economy, Government, Social Issues, Science) reached only 42.5% (based on 'unique story' proportions). The Other news category was excluded here because it is ill-defined as a topic. Further, looking to proportions of public affairs and non-public affairs stories, it can be seen that journalists at nzherald.co.nz select far more non-public affairs news stories than public affairs - 70.7% to 29.3% (based on 'unique story' proportions).

4.3.2 Consumer news selections

News topic selections

Looking at consumer news selections (assessed by recording the most viewed stories every hour across the sampled days), Sports news again can be seen to overshadow all other news topics. The top news selections of consumers were dominated by Sports stories, with 18.3% of unique story selections being from this category. This high level of interest in Sports was followed by relatively high levels of interest for Entertainment news (12.7% of unique story selections), Crime news (11.9%) and World Affairs (10.9%). Table 14 shows number and proportion of top news stories selected by consumers for each news topic category across all days.

Table 14: Consumers' news topic selections

News Topic	Unique Stories %	All Data %	Difference
Sports	18.3 (n = 121)	18.7 (n = 418)	+0.4
Entertainment	12.7 (n = 84)	11.7 (n = 261)	-1
Crime	11.9 (n = 79)	10.4 (n = 232)	-1.5
World	10.9 (n = 72)	12.4 (n = 277)	+1.5
Business	7.7 (n = 51)	8.8 (n = 198)	+1.1
Odd	6.9 (n = 46)	7.8 (n = 174)	+0.9
Accident	6.8 (n = 45)	6.4 (n = 144)	-0.4
Government	6.8 (n = 45)	6.0 (n = 134)	-0.8
Social Issues	5.9 (n = 39)	5.9 (n = 133)	--
Opinion	4.1 (n = 27)	4.9 (n = 110)	+0.8
Other	2.7 (n = 18)	1.5 (n = 34)	-1.2
Lifestyle	2.4 (n = 16)	2.6 (n = 58)	+0.2
Science	1.7 (n = 11)	1.8 (n = 40)	+0.1
Weather	1.2 (n = 8)	1.2 (n = 27)	--
Total	N = 662	N = 2,240	

Again, as with journalists, Weather (1.2%), Science (1.7%) and Lifestyle (2.4%) were among the least-favoured news categories, with consumers rating these topics highly only a fraction of the time (looking at 'unique story' selections). And while Weather, Science and Lifestyle news all fell well-below what might be expected if top consumer selections were apportioned evenly (around 7% each), Business and Economics news (7.7% of unique selections), Odd and Viral news (6.9%), Accident and Emergency news (6.8%) and Government and Politics news (6.8%) all fell around the centre.

Overall, Sports, Entertainment, Crime and World Affairs dominated selections. These four topics made up over 50% of consumers' top news selections (53.8% of 'unique stories', 53% of 'all data'). Thus, four topics garnered more attention than the remaining ten. Sports news itself received more than double the number of top selections as the Business and Economics, Odd and Viral, Accident and Emergency and Government and Politics categories. Further, the Sports category received more attention than the Weather, Science, Lifestyle and Opinion categories combined. Meanwhile, Entertainment, which received the second-highest level of attention from consumers, saw selections nearly doubling the number of selections received by Government and Accident stories.

Interestingly, looking at other news topics, the Odd and Viral news category received more top story selections than the Government and Social Issues categories. And while Entertainment appeared frequently on consumers' top news list, Lifestyle news was selected only occasionally. World Affairs, meanwhile, ranked higher than several domestic news categories, including Government, Accident and Social Issues.

Differences between topic proportions for 'unique story' data and 'all data' were relatively small, with only some categories seeing shifts in rates of selection. The proportion of Entertainment and Crime news selected by consumers decreased between 'unique story' and 'all data' samples, with Entertainment news dropping from 12.7% to 11.7% and Crime news from 11.9% to 10.4%. These shifts indicate a lower level of repeated selection for these news topics across hours as compared to the World Affairs, Business and Economics, Odd and Viral, and Opinion categories. These latter topics saw increases in their relative proportions, indicating higher rates of repeated selection across hours. World Affairs increased from 10.9% to 12.4% of top stories, Business and Economics increased from 7.7% to 8.8%, Odd and Viral news increased from 6.9% to 7.8% and Opinion increased from 4.1% to 4.9%. Consumers, in sum, selected these topics more often across hours. However, differences between 'unique story' and 'all data' proportions were, again, not large.

News topic rankings

In terms of the relative positions certain news topics reached on the consumer 'most viewed' list (1-14), trends here followed the overall trend for consumer selections. The top spots (1, 2, and 3) were dominated again by Sports, World Affairs, Entertainment, and Crime stories. Looking at the top position (1) for all stories across all hours and days, 22.5% of all stories in this position were Sports news, followed by 16.3% Word Affairs, 11.3% Entertainment and 9.4% Crime. Sports took up 21.3% of all position 2 and 25% of all position 3 stories. Table 15 shows the proportion of each news topic occupying the top 6 positions on consumers' 'most viewed' list (based on all consumer data, n = 2,240).

Table 15: Apportionment of topics across top 6 ranks (consumers)

Topic	Position 1 %	Position 2 %	Position 3 %	Position 4 %	Position 5 %	Position 6 %
Sports	22.5	21.3	25.0	20.6	15.6	23.8
World	16.3	15.6	13.1	11.9	14.4	13.8
Entertainment	11.3	13.1	11.3	10.0	10.0	8.8
Crime	9.4	10.6	8.1	10.0	13.1	11.9
Accident	8.1	10.6	5.0	3.8	3.1	5.6
Business	7.5	2.5	6.9	6.9	8.8	8.8
Government	5.0	5.0	5.6	8.1	6.3	5.6
Weather	5.0	2.5	1.9	0.6	0.0	0.0
Opinion	4.4	3.8	6.9	7.5	3.8	4.4
Science	3.8	0.0	0.6	0.6	3.1	0.0
Social Issues	3.1	8.8	8.8	6.3	8.1	7.5
Other	2.5	0.6	0.0	2.5	0.0	0.6
Lifestyle	0.6	0.6	1.9	1.3	3.8	3.8
Odd	0.6	5.0	5.0	10.0	10.0	5.6

Notably, while only 3.1% of position 1 stories were Social Issues, that figure jumped to 8.8% for positions 2 and 3. Odd News too saw a leap in representation, only taking 0.6% of all position 1 stories, but 5% of positions 2 and 3 and 10% of positions 4 and 5.

What the data shows is that certain topics (Sports, World Affairs, Entertainment, Crime) generally attained higher rankings on the top 14 list for consumers, meaning they consistently received a large number of page views. Meanwhile, some news topics (Science, Opinion, Lifestyle, Weather) languished, only occasionally making the top 14 'most newsworthy' list and being ranked low when they did. This indicates that they did not consistently receive a large number of pageviews.

Context

In terms context, the most popular stories with consumers overall (judged by total page views across all sample hours) again centred on Jonah Lomu. News about the rugby star's death dominated consumers' 'most viewed' list, with the number of page views received by the number 1 top story ("All Blacks legend Jonah Lomu dies aged 40") more than quadrupling the total number of page views received by the second-most popular story ("Jonah Lomu's wife: 'I

will be the best mum to our gorgeous sons"). Again it can be seen that major events which occurred during the sampling period had an impact on the data. Jonah Lomu articles appeared six times among the top fifty overall stories. Meanwhile, looking specifically at the Sports category, seven of the top ten overall Sports stories were focused on Jonah Lomu. The remaining three top ten Sports stories focused on the All Blacks team and All Blacks captain Richie McCaw:

1. All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating loss for our family'
2. Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'
3. All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'
4. Wellington rugby player dies soon after All Blacks take Webb Ellis Cup to his bedside
5. Jonah Lomu memorial: John Campbell's tribute to family's strength - 'We all feel loss but the most immense loss is yours'
6. Jonah Lomu's \$1.5 million property deal with his father-in-law
7. Holy c**p! You sold out the All Blacks: How NZ Rugby damaged country's biggest brand
8. 'Nadene has let nation in' - Former All Black Michael Jones praises Jonah Lomu's wife
9. Jonah Lomu Eden Park memorial service - as it happened
10. Richie McCaw on the day he experienced the Jonah Lomu effect on fans

Apart from the focus on Jonah Lomu (and other rugby stories), consumers also focused on Entertainment and World stories. Among the most-viewed stories during the data collection period were Entertainment stories about TVNZ weather presenter Karen Olsen, the Kardashians, and TV star Jeremy Clarkson. Several Entertainment stories about Charlie Sheen and Taylor Swift also appeared among the top fifty overall stories. Articles about famous individuals, in fact, were repeatedly found among consumers' overall 'most viewed' stories. Sixteen of the top fifty overall stories were about famous individuals such as Jonah Lomu, Charlie Sheen, Kim Kardashian, Taylor Swift, Jeremy Clarkson and Richie McCaw.

Topic-wise, the majority of the top 50 ranked stories overall for consumers focused on Sports in particular, followed by Entertainment, Accident and World news. Table 16 shows just the top 14 overall stories during the sample period (based on total page views).

Table 16: Top overall stories for consumers

Position	Headline	Topic
1.	All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating loss for our family'	Sports
2.	Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'	Sports
3.	Why weather presenter Karen Olsen really left TVNZ - weekends	Entertainment

4.	Why Kim Kardashian and Kanye West's new baby Saint West is breaking New Zealand law	Entertainment
5.	All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'	Sports
6.	School captain's scathing farewell speech: 'Today's schools are run more like businesses'	World
7.	Motorcyclist killed in crash with tourists named	Accident
8.	New Zealand named the world's most ignorant developed country	Social Issues
9.	'The last thing I want to do is upset Jeremy Clarkson' - Businessman who revealed presenter's 'bizarre demands' apologises	Entertainment
10.	NZ teen's billionaire backer	Business
11.	Anti-ageing drug could let you live to 120 in good health	Science
12.	Gold hot pants at Jonah's memorial service were not okay	Opinion
13.	'It's a crime to sell it for what I sold it for' - Home auctioned at no reserve goes for \$1.45m	Business
14.	Heatwave to hit parts of NZ	Weather

Looking again at specific topics, the most-viewed World Affairs stories for consumers over the sample period were about schooling in Australia, a motorbike accident in Rarotonga involving a New Zealander, the San Bernardino terror attack, the Paris terror attacks and tensions on Christmas Island. The prevalence of terror-related articles among the top World Affairs stories was apparent, with the San Bernardino terror attack and Paris terror attacks having a lingering impact on the data as a result of numerous follow-up stories.

Locally, the most popular Crime stories were about a couple attacked by strangers with a machete in Hamilton, a TV boss' act of rage against an employee, arrest warrants for student loan defaulters and a charge laid over the murder of road worker George Taiaroa.

Meanwhile, as noted, entertainment stories focused on television presenter Karen Olsen as well as celebrities such as Kim Kardashian, Jeremy Clarkson, Charlie Sheen and Taylor Swift. Such stories were commonly among the top 50 stories overall for consumers.

Notably, there was an absence of Government and Politics stories from the list of overall most popular stories. Herald consumers, in fact, based on the data, appeared to show a disinterest in political news. Government and Politics stories only made up 6.8% of 'unique story' selections and only one story from this category ("Peter Jackson to pump millions into NZ's \$134m blockbuster plan", position 15) made it into the list of top 50 stories overall. The second top-ranked Government and Politics story came it at position 57 on the overall top story list for

consumers. This story ("John Key accuses Labour of 'backing rapists'") was about Prime Minister John Key's statements in Parliament regarding New Zealand detainees on Christmas Island.

News focus selections

Looking at story focus, the vast majority of consumer news selections were non-public affairs stories. There were no major differences between the 'unique story' and 'all data' samples, with an almost 80/20 split between the two categories. Table 17 shows the large divide between non-public affairs and public affairs news story selections.

Table 17: Consumers' selections by news focus

Focus	Unique Stories %	All Stories %	Difference
Public Affairs	21.9	22.8	+0.9
Non-Public Affairs	78.1	77.2	-0.9

In terms of the most viewed public affairs/non-public affairs stories overall, only 9 of the top 50 were public affairs stories. This again shows the apparent lack of interest nzherald.co.nz consumers have in political-oriented news. Table 18 shows the top 50 position, headline and topic for each of these top-ranked public affairs articles.

The most viewed Public Affairs story across all of the sampled days was about an Australian school captain's criticism of education trends (position 7). This story was followed by an article about funding for a planned museum and convention centre on Wellington's waterfront (position 16), a commentary about private equity funds and the role they play in the economy (position 24), and an article about the risk of arrest faced by student loan defaulters returning from overseas (position 31).

Table 18: Most-viewed public affairs stories by consumers

Top 50 Position	Headline	Topic
7.	School captain's scathing farewell speech: 'Today's schools are run more like businesses'	World
16.	Peter Jackson to pump millions into NZ's \$134m blockbuster plan	Government
24.	Christopher Niesche: The rise and fall of Dick Smith	Opinion
31.	Merry Christmas from Inland Revenue: Returning Kiwis who defaulted on their loans could be arrested	Crime
36.	Parents' anguish as frozen berries linked to Hepatitis A scare recalled	Social Issues

38.	Head of King's College Mike Leach resigns after just one year in the job	Social Issues
41.	Bad blood: Taylor Swift's Bethells Beach video 'put rare native birds at risk'	Social Issues
48.	Guards storm Christmas Island detention centre	World
49.	Pilot: 'There was no warning'	World

Overall, however, consumers appeared to show a lack of interest in public affairs news – as indicated by the low proportion of public affairs stories among ‘unique story’ and ‘all data’ selections and the low number of these stories among the top 50 most-viewed articles.

News focus rankings

Regarding news focus rankings, there was some fluctuation in levels of public affairs and non-public affairs news stories across the top 14 rankings. Overall, however, the range of proportions sits between an 80/20 and a 70/30 split.

The top 3 positions saw more non-public affairs news selections than positions 4 and 5. Non-public affairs stories, in this regard, dominated the top of consumers’ most-viewed list. Meanwhile, public affairs stories ranked lower generally, reaching their highest proportion of selections at positions 5 and 13. Table 19 shows the proportion of public affairs and non-public affairs stories for each of the top 14 spots.

What this data shows is that non-public affairs stories garnered a high number of pageviews from consumers more consistently than public affairs stories. The high proportion of non-public affairs stories among positions 1, 2 and 3 shows that these stories consistently rated highly with consumers. Interest in public affairs news was less consistent, with these stories tending towards the lower end of the top 14 rankings.

Table 19: Apportionment of PA and NPA stories across ranks (consumers)

Position	Non-Public Affairs %	Public Affairs %	Difference
1.	80.0	20.0	-60
2.	79.4	20.6	-58.8
3.	81.3	18.7	-62.6
4.	72.5	27.5	-45
5.	71.3	28.7	-42.6
6.	78.8	21.2	-57.6
7.	76.3	23.7	-52.6
8.	78.8	21.2	-57.6
9.	81.3	18.7	-62.6
10.	74.4	25.6	-48.8
11.	80.0	20.0	-60
12.	76.3	23.7	-52.6
13.	71.3	28.7	-42.6
14.	80.0	20.0	-60

Conclusion

Regarding Hypothesis 2a – “consumers will select proportionally more soft news and non-public affairs news stories than hard news and public affairs news stories” – this finds support in the results. Consumers of nzherald.co.nz news content do select proportionally more soft and non-public affairs news than hard and public affairs news. Grouping news topics together under ‘soft news’ and ‘hard news’ umbrellas with regard to their political and social relevance (Reineman et al., 2011), consumer news selections can be seen to be mainly soft. Almost 65% of consumer news selections (64.3%, based on ‘unique story’ proportions) were soft (Sports, Entertainment, Crime, Odd and Viral, Accident and Emergency, Opinion, Lifestyle, Weather), with 33% being hard (World Affairs, Business and Economics, Government and Politics, Social Issues, Science). Again, stories from the Other category were excluded from these groups because the topic is ill-defined. Further, looking at public and non-public affairs news selections, consumers of nzherald.co.nz content can be seen to select far more non-public affairs stories than public affairs ones – 78.1% to 21.9% (based on ‘unique story’ proportions).

4.3.3 Comparing journalistic and consumer news selections

The news selections of journalists and consumers can be compared in terms of both the 'all story' and 'unique story' datasets. An analysis of the former is helpful in highlighting similarities between the news selections of each group. An analysis of the latter is helpful in highlighting differences.

News topic and focus selections – all story data

A comparison of journalistic and consumer selections with regard to the 'all story' dataset reveals many similarities between the two groups and only minor differences in selection proportions. Overall, both journalists and consumers selected Sports stories more often than any other news topics. Looking at the 'all story' data reported in Table 20, it can be seen that journalists and consumers selected almost the same number of Sports stories over the sample period, with 18.2% of journalistic selections and 18.7% of consumer selections being from this category.

This high interest in Sports from journalists and consumers was followed by an interest in World Affairs from both groups. Comparatively, however, consumers still selected significantly fewer World Affairs stories than journalists - with a 3.1% difference (70 stories) between the two groups – despite this topic being ranked second by both groups among the 14 categories (looking at 'all story' data).

Table 20: News topic selections by journalists and consumers ('all story' data)

Topic	Journalists	Consumers	Difference (J-C)
Sports	n = 407, 18.2%	n = 418, 18.7%	+11, +0.5
World	n = 347, 15.5%	n = 277, 12.4%	-70, -3.1
Business	n = 222, 9.9%	n = 198, 8.8%	-24, -1.1
Crime	n = 193, 8.6%	n = 232, 10.4%	+39, +1.8
Government	n = 177, 7.9%	n = 134, 6.0%	-43, -1.9
Entertainment	n = 168, 7.5%	n = 261, 11.7%	+93, +4.2
Social Issues	n = 166, 7.4%	n = 133, 5.9%	-33, -1.5
Accident	n = 136, 6.1%	n = 144, 6.4%	+8, +0.3
Odd	n = 131, 5.8%	n = 174, 7.8%	+43, +2
Opinion	n = 117, 5.2%	n = 110, 4.9%	-7, -0.3
Science	n = 60, 2.7%	n = 40, 1.8%	-20, -0.9
Lifestyle	n = 50, 2.2%	n = 58, 2.6%	+8, +0.4
Other	n = 46, 2.1%	n = 34, 1.5%	-12, -0.6
Weather	n = 20, 0.9%	n = 27, 1.2%	+7, +0.3

Other small differences between the two groups can be seen when looking at the Business, Crime, Government, Entertainment, Social Issues and Odd news categories. Figure 13, in fact, shows the shifts in news topic positions between journalists and consumers. While Sports and World Affairs ranked first and second for both groups, Business and Economics news was not ranked the same. In fact, consumers selected fewer Business and Economics stories than journalists (24 stories or 1.1% fewer), leaving this news topic category ranked fifth on the consumer list. Journalists, meanwhile, ranked Business and Economics news third, with 9.9% of selections being from this category. Crime ranked fourth for both groups, but consumers did select 39 more Crime stories (+1.8%) than journalists.

Figure 13: Shifts in news topic rankings

Topic Ranking	Journalists (all data, % selections)		Consumers (all data, % selections)
1.	Sports (n = 407, 18.2%)	→	Sports (n = 418, 18.7%)
2.	World (n = 347, 15.5%)	→	World (n = 277, 12.4%)
3.	Business (n = 222, 9.9%)	→	Entertainment (n = 261, 11.7%)
4.	Crime (n = 193, 8.6%)	→	Crime (n = 232, 10.4%)
5.	Government (n = 177, 7.9%)	→	Business (n = 198, 8.8%)
6.	Entertainment (n = 168, 7.5%)	→	Odd (n = 174, 7.8%)
7.	Social Issues (n = 166, 7.4%)	→	Accident (n = 144, 6.4%)
8.	Accident (n = 136, 6.1%)	→	Government (n = 134, 6.0%)
9.	Odd (n = 131, 5.8%)	→	Social Issues (n = 133, 5.9%)
10.	Opinion (n = 117, 5.2%)	→	Opinion (n = 110, 4.9%)
11.	Science (n = 60, 2.7%)	→	Lifestyle (n = 58, 2.6%)
12.	Lifestyle (n = 50, 2.2%)	→	Science (n = 40, 1.8%)
13.	Other (n = 46, 2.1%)	→	Other (n = 34, 1.5%)
14.	Weather (n = 20, 0.9%)	→	Weather (n = 27, 1.2%)

Further observable differences were found between journalists and consumers with regard to the Government and Politics, Entertainment, Social Issues and Odd and Viral news categories. Figure 13 shows that Government and Politics was positioned 5th on journalists' 'most newsworthy' list, while it was positioned 8th on the consumer list. There was a 1.9% difference between the two, with consumers selecting 43 fewer Government and Politics stories. Entertainment news, meanwhile, ranked much higher on consumers' 'most newsworthy' list - 3rd in comparison to journalists' ranking of 6th. This category, in fact, saw the largest difference in news selections between the two groups, with a divergence of 93 stories or a 4.4% difference in selections between journalists and consumers. Finally, the Social Issues and Odd and Viral news categories saw moderate shifts in rankings between journalists and consumers, as well as moderate differences in overall selection numbers. Social Issues ranked 9th on the consumer list and seventh on the journalist list, while Odd and Viral news ranked sixth on the consumer list and ninth on the journalist list. Altogether, consumers selected 33 fewer Social Issues stories and 44 more Odd and Viral news stories than journalists.

Nevertheless, despite these small differences, the news selections of each group matched relatively closely. Referring to Figure 13, it can be seen that journalists and consumers both selected Opinion, Science, Lifestyle and Weather stories relatively infrequently. Proportions for each of these categories was 5.2% of all selections or lower. In fact, Weather, the lowest-ranked category, only made up 0.9% of all journalistic selections and 1.2% of consumer selections (based on the 'all data' sample). It was ranked 14th out of 14 categories for both groups. Meanwhile, the Opinion category was ranked 10th on the overall list of news topics for both groups. The Science and Lifestyle categories were 11th and 12th. Overall, there were no major differences in the number of stories in each of these categories selected by either group, with the largest difference being in the number of Science stories (a 20 story or 0.9% drop between

journalists and consumers). Apart from this minor difference, news selections for these latter categories were closely matched between journalists and consumers.

Looking to Table 21, it can be seen that the proportions of Public Affairs and Non-Public Affairs stories selected by journalists and consumers also matched relatively closely. A moderate 7.1% difference between proportions was found (based on 'all story' data), but this difference did not detract from the common trend towards the selection of Non-Public Affairs news.

Table 21: News focus selections by journalists and consumers ('all story' data)

Focus	Journalists (all data %)	Consumers (all data %)	Difference (J-C)
Public Affairs	n = 669, 29.9%	n = 510, 22.8%	-159, -7.1%
Non-Public Affairs	n = 1571, 70.1%	n = 1730, 77.2%	+159, +7.1%

News topic and focus selections – unique story data

An analysis of unique story data is useful in highlighting selection differences between the two groups. Looking at the unique stories selected by both journalists and consumers, it can be seen that there some divergence (as well as some overlap). In terms of overlap, of the 801 total unique stories collected over the sample period, 430 were selected by both groups. In terms of divergence, 139 stories were selected only by journalists and 232 stories were selected only by consumers.

Breaking these sets of stories down by 'story topic' and 'story focus' reveals some similarities but also major differences between the news selections of each group. Table 22 shows this breakdown of data.

Table 22: Unique and overlapped selections by journalists and consumers

Topic	% Selected by both (n = 430)	% Journalists only (n = 139)	% Consumers only (n = 232)
Sports	19.8 (n = 85)	18.7 (n = 26)	15.5 (n = 36)
World	14.4 (n = 62)	15.8 (n = 22)	4.3 (n = 10)
Crime	10.2 (n = 44)	2.9 (n = 4)	15.1 (n = 35)
Entertainment	9.3 (n = 40)	2.9 (n = 4)	19.0 (n = 44)
Business	8.6 (n = 37)	10.8 (n = 15)	6.0 (n = 14)
Government	7.9 (n = 34)	10.1 (n = 14)	4.7 (n = 11)
Odd	6.7 (n = 29)	2.9 (n = 4)	7.3 (n = 17)
Social Issues	6.7 (n = 29)	9.4 (n = 13)	4.3 (n = 10)
Accident	6.0 (n = 26)	4.3 (n = 6)	8.2 (n = 19)
Opinion	4.2 (n = 18)	5.8 (n = 8)	3.9 (n = 9)
Lifestyle	1.9 (n = 8)	2.2 (n = 3)	3.4 (n = 8)
Science	1.9 (n = 8)	5.8 (n = 8)	1.3 (n = 3)
Other	1.4 (n = 6)	7.9 (n = 11)	5.2 (n = 12)
Weather	0.9 (n = 4)	0.7 (n = 1)	1.7 (n = 4)
Focus	% Selected by both (n = 430)	% Journalists only (n = 139)	% Consumers only (n = 232)
Public Affairs	26 (n = 112)	39.6 (n = 55)	14.2 (n = 33)
Non-Public Affairs	74 (n = 318)	60.4 (n = 84)	85.8 (n = 199)

These unique story selections showcase the preferences of journalists apart from the preferences of consumers. Indeed, comparing the 'journalist only' proportions with 'consumer only' proportions for the World, Crime, Entertainment, Business, Government, and Social Issues categories (as well as the public affairs and non-public affairs categories), it can be seen that there are major differences. Of the unique stories selected only by journalists (139), for example, 18.7% were Sports (compared to 15.5% for consumers only), 15.8% were World Affairs (compared to 4.3% for consumers only), 10.8% were Business (compared to 6% for consumers only), 10.1% were Government (compared to 4.7% for consumers only) and 9.4% were Social Issues (compared to 4.3% for consumers only).

Thus, in comparing 'journalist only' selections with 'consumer only' selections (as well as those made by both groups), there is revealed a tendency for journalists, apart from the influence of consumer preferences, to lean more towards the selection of Sports, World, Business,

Government, Social Issues and public affairs stories, and away from the selection of Crime, Entertainment, Odd and non-public affairs stories.

Indeed, the unique selections made only by journalists show a relative disinterest in Crime, Entertainment and Odd news. These topics each made up only 2.9% of unique journalistic selections. Compared to the proportion of Crime, Entertainment and Odd news stories selected by both groups and only by consumers, these proportions are low. They are indicative of a lack of journalistic interest in such topics, apart from the influence of consumers. Further, 39.6% of unique selections made only by journalists were public affairs – a higher figure than for combined unique selections (26%) and all unique consumer selections (14.2%). The inference can be made, based on this data, that without the influence of consumers, journalists might select more public affairs news stories than they presently do.

On the other side, these unique story selections reported in Table 22 showcase the preferences of consumers apart from the preferences of journalists. Of the unique stories selected only by consumers (232), 19% were Entertainment, 15.1% were Crime, 8.2% were Accident stories and 7.3% were Odd news. Compared to the unique stories selected by both groups and only by journalists, these figures equally suggest that if journalists were not a factor in consumer news selections, consumers might lean away from the preferences of journalists and heavily towards the selection of soft stories from the Entertainment, Crime, Accident and Odd news categories. Additionally, the data suggests that consumers, without the influence of journalists, would select far fewer hard news stories from the World, Business and Government categories.

Additionally, the high number of non-public affairs stories selected only by consumers, in comparison to the number selected by journalists only, is further suggestive of a consumer tendency towards soft, non-political news. Again, overall, the inference can be made that without the influence of journalists, consumers might select far more soft news stories than they do. Such inferences are made based on small figures, however. Ideally, a larger sample would provide a more substantial basis for such claims about unique story selections.

Context

Contextually, in terms of the top 50 most newsworthy/popular stories overall, journalistic and consumer selections again matched closely. A total of 32 of the top 50 stories (64%) for journalists and consumers paired up list-wise.

Generally, the stories most frequently selected and ranked highest by journalists paralleled the stories most viewed by consumers. This reflects two of the findings for Hypothesis 1. First, it was noted that journalist-consumer list matches reached 62.9% overall (looking at 'all story' data). Second, among 'unique story' data (801 stories), there was an overlap of 53.7% (430 stories). Considering this overlap and the feedback loop which exists between consumers and journalists, it is perhaps unsurprising that 64% of the top 50 stories for each group matched up.

These top 50 paired stories focused on topics such as Isis (“Revealed: Isis' masterplan for building caliphate state”), Taylor Swift (“Taylor Swift's Bethells Beach video 'put rare native birds at risk'”), a hepatitis A scare (“Parents' anguish as frozen berries linked to Hepatitis A scare recalled”), the San Bernardino terror attack (“Why did this couple gun down workers?”), and the television show The Block (“Steve Braunias' Block review: 'Great gulps of joy and shocking displays of greed'”).

Specifically, Table 23 shows that 7 of just the top 15 stories paired. These stories had a particular focus on rugby.

Table 23: Top overall stories for journalists and consumers (paired stories in red)

Position	Journalists	Consumers
1.	Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'	All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating loss for our family'
2.	Leaked plans for Auckland suburbs: Will apartments be built in your backyard?	Jonah Lomu's wife: 'I will be the best mum to our gorgeous sons'
3.	Why did this couple gun down workers?	Why weather presenter Karen Olsen really left TVNZ - weekends
4.	'The last thing I want to do is upset Jeremy Clarkson' - Businessman who revealed presenter's 'bizarre demands' apologises	Why Kim Kardashian and Kanye West's new baby Saint West is breaking New Zealand law
5.	NZ teen's billionaire backer	All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'
6.	The best news bloopers of 2015	School captain's scathing farewell speech: 'Today's schools are run more like businesses'
7.	Guards storm Christmas Island detention centre	Motorcyclist killed in crash with tourists named
8.	Peter Jackson to pump millions into NZ's \$134m blockbuster plan	New Zealand named the world's most ignorant developed country
9.	'Before I could even say anything - chop!' The moment machete hit	'The last thing I want to do is upset Jeremy Clarkson' - Businessman who revealed presenter's 'bizarre demands' apologises
10	Charlie Sheen faces lawsuits as ex-girlfriend Bree Olson claims he 'never said a word' about being HIV positive	NZ teen's billionaire backer
11.	Christopher Nietzsche: The rise and fall of Dick Smith	Anti-ageing drug could let you live to 120 in good health

12.	Family question possible 'motive' behind death of Australian tourist	Gold hot pants at Jonah's memorial service were not okay
13.	All Blacks legend Jonah Lomu dies aged 40 - 'This is a devastating loss for our family'	'It's a crime to sell it for what I sold it for' - Home auctioned at no reserve goes for \$1.45m
14.	School captain's scathing farewell speech: 'Today's schools are run more like businesses'	Heatwave to hit parts of NZ
15.	All Blacks skipper Richie McCaw retires - 'The last thing I wanted to do was limp to the end'	Peter Jackson to pump millions into NZ's \$134m blockbuster plan

Based on the data, and considering the top 50 stories, it can be said that stories about the All Blacks, celebrities and crimes mattered most to both groups. Stories about the All Blacks included those about Jonah Lomu as well as one about All Black captain Richie McCaw and another about the All Blacks visiting an ailing Wellington player ("Wellington rugby player dies soon after All Blacks take Webb Ellis Cup to his bedside"). Celebrity stories included articles about Charlie Sheen, Taylor Swift, Jeremy Clarkson, Kim Kardashian and Kanye West. Meanwhile, crime news focused on the laying of a murder charge in the George Tairaoa case, the violent actions of a TV boss ("TV boss smashed worker's desk then taunted her on social media") and the assault of a Hamilton couple ("Before I could even say anything - chop! The moment machete hit").

Conclusions

Overall, between journalists and consumers, news selections matched relatively closely. Table 20 shows how news topic selections for each group compared (based on 'all story' data). Sports rated high with both groups, as did World news. The number of Sports, Accident, Opinion, Science, Lifestyle and Weather stories selected by each group did not differ significantly.

Despite journalistic and consumer news selections matching fairly closely, however, there were small differences found between the two groups for the following news categories (based on 'all story' data reported in Table 20):

1. Business and Economics: Consumers selected 24 fewer stories than journalists, representing a 1.1% difference in selections between the two
2. Crime: Consumers selected 39 more stories than journalists, representing a 1.8% difference in selections between the two
3. Government and Politics: Journalists selected 43 more stories than consumers, representing a 1.9% difference between the two
4. Social Issues: Journalists selected 33 more stories than consumers, representing a 1.5% difference between the two

5. Odd and Viral: Consumers selected 43 more stories than journalists, representing a 2% difference in selections between the two
6. World Affairs: Journalists selected 70 more stories than consumers, representing a 3.1% difference in selections - the second largest difference between the two groups
7. Entertainment: Consumers selected 93 more stories than journalists, representing a 4.2% difference in selections - the largest difference between the two groups

Regarding Hypothesis 2b – “There will be a gap between the news selections of journalists and consumers. Consumers will select proportionally more soft news and non-public affairs news stories than journalists. Journalists will select proportionally more hard news and public affairs stories” – it can be said that there *is* a gap between the news selections of journalists and consumers, even though it is small.

While individual topic differences were not large, collective differences between the two groups were apparent. Grouping news topics together under the broad ‘soft news’ and ‘hard news’ umbrellas, it can be seen that consumers do select proportionally more soft news stories than journalists. Soft news topics (Sports, Entertainment, Crime, Odd and Viral, Accident and Emergency, Opinion, Lifestyle and Weather) collectively made up 63.7% of ‘all story’ selections for consumers, compared to 54.5% of journalistic selections. On the flip side, journalists selected proportionally more hard news stories – 43.4% to 34.9% (based on ‘all story’ data). These are stories from the World Affairs, Business and Economics, Government and Politics, Social Issues and Science categories.

Meanwhile, there was also a gap between journalistic and consumer selections of public affairs and non-public affairs news stories. However, again, this gap was not large. Journalists selected slightly more public affairs news stories than consumers – 29.9% to 22.8% (based on ‘all story’ data). Consumers selected slightly more non-public affairs stories than journalists – 77.2% to 70.1% (based on ‘all story’ data).

All in all, journalistic and consumer news selections matched relatively closely. This is consistent with the findings for Hypothesis 1. Data on unique selections, however, suggest that if each group was not an influencing factor on the other, news selections would diverge. The figures reported in Table 22 indicate that if consumer selections were not a factor in journalistic decision-making, journalists might select far more World, Business, Government and Social Issues stories and far fewer Crime, Entertainment and Odd news stories than they currently do. Conversely, the data also suggests that if journalists were not a factor in consumer decision-making, consumers might select significantly more Crime and Entertainment stories and fewer World, Business and Government stories.

4.4 Hypothesis 2 – Discussion

4.4.1 The news selections of journalists

Journalists will select proportionally more hard news and public affairs news stories than soft news and non-public affairs news stories.

As reported in the previous section, journalists on nzherald.co.nz selected Sports stories as the most newsworthy more often than any other news topic. This focus on Sports (1) was followed by, in order of most-selected topics, a focus on World Affairs (2), Business and Economics (3), Crime (4), Government and Politics (5), Entertainment (6), Social Issues (7), Odd and Viral (8), Accident and Emergency (9) and so on (based on 'all story' data). However, while the World Affairs, Business and Economics and Government and Politics categories ranked highly, journalists still selected more soft news than hard news – 54.4% to 42.5%. Journalists also overwhelmingly selected more non-public affairs news than public affairs (70.7% of 'unique stories' compared to 29.3%).

Reasons for news topic selection findings

Generally, the findings for Hypothesis 2a, related to the news topic selections of journalists on nzherald.co.nz, may be explained by political-economic factors – namely consumer and commercial influences (as discussed in the literature review). With regard to these factors, Hamilton (2004) specifically argues that the concepts of 1) marginal consumers, and 2) advertiser value are important. Each factor, along with Hamilton's concepts, will be discussed in turn.

The influence of consumers (including marginal consumers)

As was noted in the discussion for Hypothesis 1, the results of this research may be partially explained by the feedback loop between journalists and consumers. The Herald's organisational goals and branding attract particular consumers who express their interests through clicks, with this click data filtering back to journalists, triggering editorial responses and a further shaping of goals, branding and editorial outputs. As Tewksbury and Rittenberg (2015) point out, the proposed model is an iterative one:

The provision of more news in a particular area could attract audiences in search of that content...As more people visit the site for that content, the website receives story-hit data that reinforce the perception that the audience wants that content. The editors will likely respond by providing more news of that type, continuing the cycle of audience-editorial interaction. (p. 71-72)

Briefly, again, journalistic outputs foster consumer perceptions and expectations, leading to consumer actions which filter back to journalists, triggering editorial responses (Tewksbury & Rittenberg, 2015).

As a result of this process, strong consumer interest in Sports, Entertainment, Crime and World Affairs may have contributed to the frequent selection of these topics by journalists on nzherald.co.nz. Recent literature suggests that consumers are having a larger impact on journalistic news selections than the other way around (Lee et al., 2014). And as was noted in Section 2.2, consumers have become more influential in the news selection processes of journalists because of the commercial pressures on news outlets and as a result of the influence of tracking technology (Vu, 2014; Tandoc, 2014). In this regard, then, the findings for Hypothesis 2a related to journalistic news selections may be partially explained by the influence of consumer interests. Journalists at nzherald.co.nz may be selecting soft and non-public affairs news stories because consumers are. Indeed, the results for Hypothesis 1 showed that consumer interests were a reasonably large factor in the decision-making processes of journalists, with homepage rankings and clicks being positively associated to a significant degree.

Beyond the potential influence of all consumers collectively, Hamilton (2004) points out that the interests of a subset of consumers – marginal consumers – are of particular importance. At the outset, Hamilton (2004) notes that any news organisation will have as its initial focus the interests of its core consumer base. These are regular news consumers who are loyal to the brand and who provide a steady stream of revenue. For nzherald.co.nz, these consumers, as identified in Section 2.6, are typically older and wealthier New Zealanders. They are homeowners in the top socioeconomic groups with older or adult children. This core readership base may explain the presence of World Affairs and Business and Economics news as the second- and third-most selected news topics for journalists. Such topics are likely to appeal to this type of regular news consumer (Hamilton, 2004). And, after all, it is arguably in the Herald's best financial interests to continue appealing to this group because they are frequent, reliable patrons.

At the same time, marginal consumers are the type of news consumer outlets are often trying to attract in order to expand their audience base (Hamilton, 2004). These types of consumers, who do not regularly engage with news and who are more likely to be women or consumers aged 18-34, are much more interested in Sports and Entertainment news when they do engage (Hamilton, 2004). They contrast with older regular news consumers – although both core and marginal consumers are interested in Crime. These marginal consumers are also more attractive to advertisers because they are typically younger and female (Hamilton, 2004). This provides a further incentive for news outlets to appeal to them.

Indeed, there is evidence that the Herald is looking to reach these marginal consumers, with parent company NZME placing increased focus on those consumers who “snack” on content

(Cheng, 2015a). NZME chief executive Jane Hastings has said that the company “is focused on how we commercialise our specialist content including business, sport, entertainment, food and lifestyle across all platforms” (“NZME makes commercial leadership changes”, 2015, para. 7), showcasing the broad appeal the company is aiming for. “We are a customer-focused business,” she adds (Cheng, 2015a, para. 13). The outlet, as noted in Section 2.6, is also arguably under corporate pressure to arrest advertising revenue declines. The Herald is therefore incentivised to attract these marginal consumers because they are more sought-after by advertisers.

Such corporate and commercial pressures are a potential catalyst for soft news selections. As Hamilton (2004) notes, “To attract the attention of marginal consumers, most news outlets face greater incentives to cover crime, health, local community events, and even entertainment news rather than news about political events” (p. 74). Thus, with nzherald.co.nz trying to expand its audience and increase website traffic, it is perhaps no surprise that Sports, Crime and Entertainment ranked high. These topics, particularly Sports and Crime, made up a large proportion of journalists’ top news selections (27.9% of ‘unique story’ selections), outflanking news selections for World Affairs and Business and Economics (23.9% of ‘unique story’ selections). Such findings may be a product of the Herald looking to attract marginal consumers who are interested in soft news.

In terms of the selection of political and public affairs stories on nzherald.co.nz, the interests of each group of consumers – regular and marginal – are also relevant. Government and Politics ranked 5th among 14 topics for journalists (based on ‘all story’ data), with more news selections than the Entertainment, Social Issues and Odd news categories. The dual influences of the Herald’s older and wealthier audience base and marginal consumers are a potential explanation for this. As Hamilton (2004) notes, regular news consumers tend to value political news stories much more than marginal consumers. Marginal consumers, meanwhile, rank politics low as a news category (Hamilton, 2004). A balancing of political interests – strong for regular consumers, weak for marginal consumers – therefore puts the Government and Politics category just above the average for news selections.

In fact, a balancing of interests between core and marginal consumers may be the best explanation for the results overall. The news selections of journalists – in terms of news topics – show a mix of hard and soft news stories among the most newsworthy. This may be part of a strategy to achieve broad appeal while also allowing for audience segmentation. Indeed, media organisations “deliberately select some mix of these [hard and soft] news formats in order to attract a specific audience” (Tewksbury & Rittenberg, 2015, p. 90). Having broad consumer appeal while allowing for segmentation is a potentially profitable content strategy for news outlets looking to sell both large audiences and specific audience segments to advertisers (Turow, 2005; Tewksbury & Rittenberg, 2015). After all, the goal once consumer attention is garnered – from consumers both broad and specific – is to then on-sell that engagement time to advertisers (Jhally & Livant, 1986).

The Herald, in this regard, is following other news outlets which have stressed the need to have a 'mix' of news content available (Karlsson & Clerwall, 2013). "All journalists, including those from public service, bear witness to the importance of the mix and of balancing different types of content," Karlsson and Clerwall observe (2013, p. 75). Herald journalists appear to have the same emphasis.

Commercial influences (including advertiser influences)

Commercial influences are also a potential explanation for the findings for Hypothesis 2a. Such influences are a common theme, with financial pressures driving many changes in newsrooms and underpinning many academic findings. As noted in Section 2.2, commercial pressures appear to be driving news outlets towards the provision of more soft news in order to attract a broad base of consumers who can be sold to advertisers. The findings for Hypothesis 2 suggest that the Herald is no different, with the outlet promoting more soft and non-public affairs content than hard/public affairs content. This is arguably a product of the Herald's commercial orientation and a need to generate revenue.

With nzherald.co.nz being advertiser-supported, the main path to revenue generation for the site is attracting sponsors who are eager to reach Herald consumers and who are willing to pay high rates to have their advertisements appear alongside Herald content. In this regard, it is important to look at what content and which consumers advertisers place a premium on, since such advertiser interests may influence news supply.

Looking to the Herald's advertising rates (see Table 1), it can be seen that a premium is placed on advertising in the Business, Entertainment and Life & Style sections. News stories in these categories have a higher economic value than others in terms of cost per thousand impressions (CPM). Table 1 shows that CPM rates for the Business and Entertainment sections, in particular, are higher than other sections. These higher rates may incentivise the promotion of Business and Entertainment stories by nzherald.co.nz journalists on the homepage as a way to funnel readers to these sections. Indeed, the more visitors who are encouraged to visit these sections by clicking on such stories, the more money nzherald.co.nz generates because pricing is by cost per thousand impressions.

CPM rates may therefore, in part, explain why Business and Economics was among the top three news categories for journalists on nzherald.co.nz and why Entertainment was ranked sixth among 14 categories – it makes economic sense to promote such content. Meanwhile, however, Lifestyle stories (as well as technology and travel stories) did not rate as highly among journalistic selections despite high CPM rates. This may be the result of other factors coming into play, with journalistic values and judgments about story importance perhaps keeping Lifestyle stories out of the top 14 on the nzherald.co.nz homepage. However, this does not account for the high number of Entertainment stories among top journalistic news selections. In

this regard, there may be additional factors at play which are influencing selection decisions. Explaining this tension – and apparent contradiction – may require further research.

Looking at other sections of the site, CPM rates for the Sports and National sections are lower. This, on its face, provides a disincentive to promote such stories. However, the monthly audience figures for these sections of the site are high, meaning the Herald benefits from the resulting *price x audience size* equation. In fact, the Herald's National section has the highest monthly audience figures (860,000), followed by the Sports (618,000), Business (589,000), Entertainment (560,000), Life & Style (493,000), and World sections (435,000) (see Table 3). The high readership numbers for the Sports and National sections, combined with modest CPM rates, may therefore be contributing factors to the presence of Sports and Crime among the top 4 news categories on nzherald.co.nz. The trade-off on CPM rates is more than made up for by high readership numbers. Indeed, the high readership numbers for the National and Sports sections (as well as the Business and Entertainment sections) may incentivise the promotion of stories within these sections as a way of capitalising on consumer interest.

Further, full section takeover rates (which are not costed per thousand impressions) are highest for the National, Business and Sports sections. These rates again incentivise the direction of web traffic to these parts of the nzherald.co.nz site and again may contribute to the large number of Sports, Business and National news stories (i.e. Crime, Government, Social Issues) among journalists' top selections.

The high prevalence of Sports, Crime and Entertainment stories among journalists' news selections on nzherald.co.nz may also be explained by advertisers' desire to reach particular demographics. Since nzherald.co.nz generates revenue from advertising – and since the site and its parent company NZME are under financial pressure – there is arguably an incentive to pay attention to advertiser interests.

In terms of the groups advertisers look to reach, women and consumers aged 18-34 are typically the focus (Hamilton, 2004). These consumers, as with marginal consumers, have an interest in soft news topics such as crime, entertainment and sports (Hamilton, 2004). In order to attract such consumers so they can be sold to advertisers, news outlets are incentivised to produce more of this soft news content.

The number of Crime stories among journalists' top selections may be explained by this process of advertiser influence. Women 18-34 are especially sought after by advertisers because, as Hamilton (2004) notes, "they frequently make the purchasing decisions of their households" (p. 93). This consumer demographic has a strong interest in crime news (Hamilton, 2004). Thus, in order to attract such consumers and please advertising clients, nzherald.co.nz is incentivised to generate more stories about robberies, assaults, police chases and court proceedings. The result is 8.4% of journalists' top news selections relating to Crime (based on 'unique story' data).

Further, the high appeal of Sports coverage to males 18-34 (Hamilton, 2004) may also explain the large number of Sports stories among journalists' top news selections. This consumer demographic, being in the 18-34 range, is sought-after by advertisers and news outlets such as nzherald.co.nz are therefore incentivised to draw them in. Additionally, the broad appeal of Entertainment news to both men and women 18-34 (Hamilton, 2004) may again go some way to explaining why this topic received considerable attention on nzherald.co.nz.

At the same time, the lack of general interest these young and female consumers have in political news (Hamilton, 2004) may explain the low level of public affairs news selections among journalists. Since political news does not appeal to a broad range of sought-after consumers, it is, by commercial logic, not profitable to produce or disseminate. Hence, this may be why public affairs news is selected far less often than non-public affairs news by journalists on nzherald.co.nz (29.3% of 'unique stories' compared to 70.7%). Indeed, if the profitability of market segments is taken into account, this may further explain the almost complete absence of stories about Maori and Pacific issues on nzherald.co.nz. Only three stories among journalists' top news selections mentioned Maori in the headline. One story was about Tuhoë's plan to provide social services for its people ("Tribe: Let us run social services"), a second was also about Tuhoë's welfare plans ("Tuhoë takes its own path"), and a third was about Ngati Whatua's plans for a housing development ("Iwi's plans for North Shore housing land"). As Biltereyst and Meers (2011) point out, in a system where audiences are valued by producers and advertisers only for their buying power, minority audiences may be excluded or discriminated against because they do not have the disposable income to spend on goods that other groups do. Maori and Pacific people have a lower median personal income than New Zealand Europeans (Statistics New Zealand, 2014) and this may be a contributing factor to the lack of Maori and Pacific news stories – they are not profitable demographics to appeal to.

Overall, producing more news stories that appeal to sought-after consumers is a convenient way to profit in the advertiser-supported media market. The interest that advertisers have in reaching particular demographics may go some way to explaining the prevalence, in particular, of Sports, Crime and Entertainment stories among journalists' top news selections.

Reasons for news topic ranking findings

Looking to the findings about how particular news topics were ranked by journalists on the top 14 'most newsworthy' list, it appears that journalistic values may have played a small role in shaping the results, particularly with regard to how the top-ranked position on the nzherald.co.nz homepage was treated.

As noted, journalists have traditionally focused on public affairs stories because the coverage of such stories is seen as part of the journalistic mission to educate and inform (Singer, 2003; McManus, 1994; Gans, 1979). In terms of placement, front page newspaper stories have tended to focus on these public affairs stories, with the front page designation being a signal of

importance or newsworthiness (Althaus & Tewksbury, 2002). Top news stories on website homepages have received the same 'newsworthiness' treatment (Boczkowski & Mitchelstein, 2013) and the situation appears to be no different with the nzherald.co.nz homepage.

Controlling for the large number of Sports stories in the top story position, the data shows that this spot was reserved slightly more often for hard and public affairs news stories than other positions on the top 14 list (see Table 7 and Table 8). Indeed, the top story position saw slightly more public affairs stories being placed there than other spots on the top 14 list. Just over 34% of rank 1 stories (34.4%) were public affairs stories – a marginally higher proportion than for the other rankings (2-14). Meanwhile, hard news topics such as Government and World were far more likely than Entertainment stories to be placed in this top position. Of all Rank 1 stories, 23.8% were Sports, 17.5% were World Affairs, 12.5% were Government and Politics, 11.3% were Crime, 8.8% were Accident and Emergency, and 7.5% were Business and Economics. Only 4.4% of Rank 1 stories were from the Entertainment category, and 1.9% from Odd and Viral news.

Thus, the findings indicate that this top position on the nzherald.co.nz website may come with a particular designation of importance, with hard or breaking news topics most likely to be placed there. Indeed, Boczkowski & Mitchelstein (2013) note that "the prevalence of the public-service ethos at the core of the occupation's identity influences journalists' news choices" (p. 143). This occupational identity looks to be a contributing factor in the selection and placement of top-ranked news stories, especially with the placement of Government and World stories.

Conclusions / Implications

Of course, these are all tentative findings and explanations. There are myriad factors that go into news selections which have not been discussed here. These other factors – especially professional values, which has not been discussed at length – are likely to play a large role in the news selection decisions of journalists (Boczkowski & Mitchelstein, 2013). Such professional values may be behind the number of selections for World, Business and Government stories. Indeed, these hard news topics ranked second, third and fifth among the 14 topics analysed in this study. Thus, while soft and non-public affairs news stories made up the majority of news selections, these hard news topics still shone through in news selections, perhaps as a product of the operation of professional journalistic values.

This is possibility perhaps indicative of what Boczkowski and Mitchelstein (2010) label a "tension" between traditional journalistic values and commercial values (p. 433). That sense of an "occupational duty" – that need to inform and educate the public about important issues – remains with journalists despite outside pressures (Boczkowski & Mitchelstein, 2010, p. 433). This results in a mix of content being made available perhaps as a way for journalists to fulfil that 'occupational duty' while also yielding to commercial and audience concerns.

But these commercial values, despite the continuing presence of occupational values, are increasingly taking a hold in private-sector media outlets because of the need to generate revenue for shareholders (Rosenberg, 2008; Hope & Myllylahti, 2013). A focus on profit-generation, Hague and Harrop (2010) note, consequently means less time and space devoted to public affairs because public affairs does not sell:

Channels in search of profit will devote little time to serious politics; instead, they concentrate on soft news – news you can use. Certainly, profit-seeking media have no incentive to supply public goods such as an informed citizenry and a high electoral turnout, which were traditional concerns of public media. For those who view democracy as a form of collective debate, media commercialisation is a challenge indeed. Against this, commercial broadcasters reply that it is preferable to reach a mass audience with limited by stimulating political coverage than it is to offer extensive but dull political programming which, in reality, only ever reached a minority with a prior interest in public affairs. (Hague & Harrop, 2010, p. 143).

The authors' sentiments are expressed in relation to broadcasting, but they are equally applicable to online news. Further, these conclusions can be applied to nzherald.co.nz.

Indeed, the results of this research point towards the influence of commercialism on the Herald. Concerns about advertising revenue, audience numbers and profits have arguably shaped the behaviour of journalists on nzherald.co.nz. Although traditional journalistic values do shine through – with the high number of top news selections for World Affairs and Business – there is a general tendency towards the selection and promotion of soft and non-public affairs news. Overall, what can be seen is that the Herald's top-ranked online news content is soft, commercialised, commodified and designed to appeal to a broad audience. This tendency towards soft news tracks with the findings of other studies in New Zealand and overseas which have witnessed a softening of the news agenda as a result of commercial and audience concerns.

The Herald's online news, in this regard, mirrors television news content in New Zealand. Atkinson's (1994b) assessment of television news saw soft news values shining through as a result of outside pressures. In particular, he observed that "since access to information is restricted by commercial viability, minority and common good interests miss out in favour of lowest-common-denominator programming designed to appeal to the masses" (p. 48). The same can be said about pressures on the Herald and nzherald.co.nz's news output.

Indeed, regarding the findings of New Zealand content analyses, there are notable parallels. In particular, previous studies of New Zealand news content (in newspapers and on television) have revealed a strong preference for Sports news among journalists. Gibbons (2014), in analysing regional newspaper coverage, found that papers devoted by far the most space to Sports. Similarly, Atkinson (1994b) observed a strong focus on Sports in television news

coverage. In light of these findings, this study confirms a strong preference for Sports among New Zealand journalists. The studies noted here also observed focus among journalists on soft news topics such as Crime and Entertainment. This research uncovered a similar focus on soft news topics.

The implications of these research findings for New Zealand's social and political landscape are arguably not positive. The findings for Hypothesis 2a support the conclusion that a soft news agenda has taken a strong hold in New Zealand. Sports was, by far, the most favoured topic among Herald journalists, receiving a large number of top news selections. Other soft news topics such as Crime and Entertainment received an appreciable number of top news selections. Non-public affairs news also received considerable attention. Following on from this, what might be seen in future, as a consequence of the intensification of commercial and technological influences, is an increase in the amount of soft news provided to consumers online (if it has not already reached peak levels).

If more soft news is produced and disseminated by journalists, this raises concerns about journalists failing in their occupational duty. As noted, journalists have traditionally been seen as important players in the democratic system, performing the dual roles of watchdogs and information providers (Singer, 2003; McManus, 1994; Atkinson, 1994b). They have been charged with holding the powerful to account while also furnishing the public with important information that is necessary for the proper functioning of civil society. Without the right information, however, the public may be unable to engage in well-informed decision-making. Indeed, decisions about where to spend tax dollars cannot be made on a diet of news about Taylor Swift, Kim Kardashian and the All Blacks. But if this is all the news that is provided by journalists going forward, there are serious concerns which need to be raised about how journalists – and the media system generally – operate under market conditions. The data from this research already shows that public affairs and Government and Politics news ranks low among journalists' top news selections and there is a risk that the supply of this news could further diminish as commercialism marches forward.

From a political economy perspective, it might be argued that the specific content of news stories online may become increasingly irrelevant – since the ultimate goal of commercial media organisations such as the Herald is to sell audiences to advertisers (Smythe, 1977). Indeed, NZME chief executive Jane Hastings has said that the company is about selling consumers to advertisers and emphasised that advertisers are the company's clients, not consumers ("NZME makes commercial leadership changes", 2015). Under this commercial framework, it does not and may not necessarily matter what online news stories are about (the housing crisis, terror attacks, rugby, Kim Kardashian) so long as they draw in audiences which can then be sold. In this regard, "Media content becomes secondary, a free lunch at best" (Biltereyst & Meers, 2011, p. 425). This crude economic perspective divorces news content from any questions of quality, usefulness or importance and instead sees it as a means to an end: profit. Whatever sells is

what matters. And in a world where media organisations are increasingly under financial pressure, that divorcing of news from 'news values' may only become more readily apparent.

At the same time, however, it might be argued that a matching of journalistic and consumer interests, alongside the provision of more soft news content, is actually beneficial to the New Zealand public sphere. As Beam (2003) points out in relation to newspapers:

In relying more on readership research to fathom audience concerns and interests, market-driven newspapers may be discovering that the information readers feel that they need to be good citizens or to cope with the central concerns of their lives may not be the traditional content intended for the public sphere. For example, issues affecting family or culture may have substantial social or political implications, but coverage of them generally would not be classified as public affairs content. Perhaps market-driven newspapers are revising the definition of what constitutes public service journalism. (p. 382).

Thus, consumer-oriented online news might be beneficial in some regard to the public since it takes into account and appeals to their particular preferences. Whether these preferences have any measurable political or social value, however, is another question.

4.4.2 The news selections of consumers

Consumers will select proportionally more soft news and non-public affairs news stories than hard news and public affairs news stories.

The results for Hypothesis 2 showed that consumers on nzherald.co.nz also selected Sports news more often than any other news topic. For consumers, this strong interest in Sports (1) was followed by an interest in Entertainment (2), Crime (3), World Affairs (4), Business and Economics (5), Odd and Viral (6), Accident and Emergency (7), Government and Politics (8), Social Issues (9), and so on (based on 'unique story' data). Overall, consumer selections on nzherald.co.nz skewed heavily towards the selection of soft news topics – 64.3% to hard news' 33% (based on 'unique story' proportions). Consumers also selected Non-Public Affairs news stories far more often than Public Affairs news stories – 78.1% of 'unique story' selections compared to 21.9%. There was, therefore, a strong tendency towards the selection of soft and non-public affairs news among consumers.

Reasons for news topic selection findings

The findings for Hypothesis 2a, related to the news topic selections of consumers on nzherald.co.nz, may be explained by the political-economic factors discussed in the literature review. Namely, there are internal and external influences for consumers. External influences

relate to site branding, site structure and journalistic decision-making. Internal influences relate to consumer agency and associated uses and gratifications.

Branding, site structure and journalistic selections

Generally, variations in consumer news selections between sites and samples can, in part, be seen to be a result of differences in journalistic news outputs as well as consumer perceptions and expectations of particular news outlets. As Tewksbury and Rittenberg (2015) point out, substantial variations exist between the news selections of consumers on different sites and these differences are likely the product of specialisation by news outlets, audience targeting and segmentation and the brand expectations of consumers. Again, they note that consumer selections are likely to be constrained by what is on offer. If soft news is the only news available to choose from, then this is what will show up in the results.

The Herald portrays itself as a generalist, mass market news outlet that looks to appeal to both broad audiences and specific market segments with a range of different news content (“NZME makes commercial leadership changes”, 2015; “The New Zealand Herald”, n.d.). This broad-appeal orientation shines through in the mix of content most clicked on by consumers, with Sports, Entertainment, Crime, World affairs and Business and Economics news making up the top five news topics. The Herald’s branding, therefore, is one potential explanation for the data. A broad-appeal site such as nzherald.co.nz with large amounts of soft news content on offer will attract a broad audience interested in such journalistic outputs. Of course, the association between journalists and consumers is not as perfect as this, but there is arguably a general tendency towards a symbiotic relationship as a product of commercial and technological forces.

Further, as noted in the discussion for Hypothesis 1, news placements may have an influence on consumer selections and provide a partial explanation for the findings. Tewksbury and Rittenberg (2015) note that “when we look at a website, we can predict likely news exposure partly based on placement” (p. 96). The presence of a story at the top of a webpage, the authors note, increases its likelihood of being clicked on. Indeed, Boczkowski (2010a) has observed consumers reading webpages from the top down, with a focus on prominent headlines. In his study, he also observed that subsequent visits to news sites by consumers, in particular, were marked by an emphasis on the top of the homepage

In light of these observations, the presence of a large number of Sports and World Affairs stories among the top 14 articles on nzherald.co.nz, for example, is likely to have been a contributing factor to the large number of Sports and World Affairs stories among the top selections of consumers. Journalistic placements fed into consumers selections, producing a dataset which reflected agreement. This proposed model provides a potential explanation for these findings as well as the findings for Hypothesis 1.

Generally, consumer selections can be and are shaped by site structure and importance indicators (Tewksbury & Rittenberg, 2015). Beyond prominent placements, the presence of stories on 'most read' or 'most emailed' lists on a website can also encourage consumer engagement (Thorson, 2008). In this regard, consumer selections can be somewhat self-perpetuating, with consumers selecting stories that other consumers have found interesting. The Herald website does have a 'most read' list featuring five stories and the presence of this feature may have generated more clicks for these popular stories. This would be a site feature influencing consumer decision-making. Such a feature, alongside the Herald's branding and the influence of journalistic selections, may account, to some extent, for consumer's news selections.

Consumer agency/uses and gratifications

Another potential explanation for the findings for Hypothesis 2 relates to consumer agency and freedom of choice.

As noted, consumers are better able to follow their personal preferences online because the nature of the medium allows them to freely move around, selecting content from an abundance of sources (Boczkowski & Mitchelstein, 2013; Tewksbury & Rittenberg, 2015; Hague & Harrop, 2010). Consumers in the online medium have greater freedom and agency because of the medium's non-linearity and networked structure (Althaus & Tewksbury, 2002; Karlsson, 2012). Control over access and navigation of pathways is, in many ways, handed over to consumers. Research has shown that this greater level of control over news exposure "leads online readers to focus on different kinds of information [than newspaper readers]" (Althaus & Tewksbury, 2002, p. 199). This 'different information' is generally soft and non-public affairs news.

Indeed, overall, online research into consumer preferences has shown that this is the type of news consumers gravitate towards when given the opportunity (Boczkowski & Mitchelstein, 2013). The findings of this research support that assessment of consumer preferences. Herald consumers selected significantly more soft and non-public affairs news than hard and public affairs news.

This tendency towards soft news is arguably the product of the freedom of choice offered to these consumers online and the enactment of particular uses and gratifications. As noted, the nature of the online medium caters to consumers' desire to follow their own news interests. Uses and gratifications research is therefore relevant here and may help in explaining some of the news selection decisions of nzherald.co.nz consumers. Broadly, consumers may seek out news for enjoyment or pleasure (Meijer, 2012), to facilitate social interaction (Boczkowski, 2010b), to satisfy curiosity or a desire for titillation (Tenenboim & Cohen, 2015), to distract themselves or alleviate boredom (Meijer, 2012; Boczkowski, 2010a), or to learn about society and gain new information (Boczkowski & Mitchelstein, 2010; Graber, 2004) among many other reasons (see Katz, Blumler, & Gurevitch, 1973-1974).

Looking to specific news topics, Sports, for example, was the most popular news topic with nzherald.co.nz consumers. The high level of interest in Sports among these consumers is likely to be a product of New Zealand's strong sporting culture. As Jackson (2004) notes, sport is a key part of the national identity:

Specifically in relation to New Zealand, sport is considered to be a key part of its cultural identity. Indeed, New Zealand is often self-described by New Zealanders as a "great little sporting nation" in large part due to its perceived comparatively strong performances against much larger countries. (p. 17)

This sense of sports – especially rugby – being a part of the national identity may therefore be a contributing factor to the popularity of Sports news among consumers. In this regard, it could be said that consumers' desire for entertainment and pleasure – as well as a desire to keep informed about the latest sporting results – fuelled the high level of Sports selections. The facilitation of social interaction may have also been a motivating factor.

The need for enjoyment may also explain the large number Entertainment stories among consumers' top selections. Enjoyment is an important factor in news consumption (Martin, 2008) and soft news topics are arguably more likely to foster this sense of enjoyment than hard news (Boczkowski & Mitchelstein, 2013). Indeed, Boczkowski and Mitchelstein (2013) point to active avoidance of public affairs news among consumers, with consumers being reluctant to engage with political news because of the effort it takes to engage. "Most of the people we interviewed felt a tension between consuming public-affairs news that generate anxiety and demand substantive interpretive effort and reading non-public affairs stories that generate relaxation and make lesser cognitive demands," the authors noted in their assessment of consumer motivations (Boczkowski & Mitchelstein, 2013, p. 18). Light topics are also popular with consumers because they offer 'watercooler' subjects for people to talk about (Boczkowski, 2010b). Indeed, offline interactions, as Boczkowski (2010b) notes, are "a key determinant of news consumption" (p. 481). These offline interactions encourage the consumption of soft news and the avoidance of difficult or sensitive topics related to politics and social issues (Boczkowski, 2010b). Such uses for media and the particular motivations to engage with light subjects may help explain the Entertainment news selections.

Meanwhile, the strong interest in Crime news may be explained by consumers' desire for "surveillance gratification" (Mersey, 2010, p. 44). It may also be explained by consumers' curiosity about violence and conflict (Tenenboim & Cohen, 2015). Additionally, strong consumer interest in Crime may feed into nzherald.co.nz's reporting of it and fuel a cycle of increasing coverage. Indeed, this tracks with trends in New Zealand noted by Cook (2002; 2001) and McGregor (2002a) – namely, the increased coverage of the topic since the 1980s.

World news selections are surprising given how ‘relevancy’ is an oft-cited factor shaping news consumption (Martin, 2008; Mersey, 2010). Consumers are not typically seen to be interested in news stories that have little personal or cultural relevance to them (Martin, 2008; Mersey, 2010), and both ‘relevance’ and ‘proximity’ are considered news values for journalists (Bell, 1991, p. 157). Nevertheless, consumer interest in World Affairs may have been driven by the magnitude of world events occurring the data collection period and a desire among consumers to keep up-to-date with such major occurrences. Indeed, during the study period, the Paris and San Bernardino terror attacks happened. There were a significant number of World Affairs stories about these events among consumers’ top news selections. They were arguably present because of the magnitude of these events, as well as the extensive follow-up coverage dedicated to them.

In contrast to World news selections, the selection of Business and Economics stories by nzherald.co.nz consumers may have been driven by personal relevance and proximity. Many of the Business and Economics stories that appeared in the data related to the property market, as well as retail and consumer affairs. Hamilton (2004) notes that, typically, “[n]ews one can use in everyday life tops the interests of online consumers” (p. 195). Thus, stories about these issues – which are of everyday relevance especially to the Herald’s older, wealthier audience base – were likely to be present because they provided useful information to readers. This interest in news about the economy tracks with the observations of Robinson (2007a), who noted a sharp increase in interest among American consumers in news about money, commodity prices, personal finance, employment and inflation between 1986 and 2006. This surging interest in money and personal finance news was linked to the incidence of financial crises through the late 1990s and 2000s and the increased relevance of this type of news to consumers facing difficult economic conditions (Robinson, 2007b; Lischka, 2014; Cook, 2001). In the same way, the news selections of nzherald.co.nz consumers may have been shaped by the issues of housing and property prices which were prominent in late 2015. Such issues are arguably highly relevant to people’s everyday lives, particularly in Auckland where there is considered to be a housing crisis (“Opinion: Planning rules the cause of housing crisis,” 2015).

Generally, the freedom of choice offered to consumers online combines with personal interests and motivations to produce news selection data. For Herald consumers, the particular uses and gratifications mentioned above have arguably led to the selection of more soft and non-public affairs news stories than hard and public affairs stories. The selection of such stories may arise from a desire among nzherald.co.nz consumers for entertainment, titillation, boredom alleviation and the facilitation of social interaction, among other motivations.

Reasons for news topic ranking findings

Unlike journalistic rankings, it is difficult to ascribe meaning to the apportionment of particular topics across rankings for consumers. This is because the results are informed by thousands of individual, unrelated consumer decisions. Journalistic rankings were, in contrast, decided

deliberately by a smaller group of people, arguably giving these placement decisions some gravity.

Thus, because this consumer data is an aggregation of thousands of news selection decisions, conclusions are harder to draw. Nevertheless, what can be said is that the data shows some topics were more consistently among consumers' top selections than other topics. Sports, World, Entertainment and Crime took up large proportions of the top-ranked positions while Lifestyle, Weather and Science languished. The results lend support to the observation that Sports, World, Entertainment and Crime stories were more consistently popular with consumers than stories from other topics. Indeed, the data shows that stories from the Lifestyle, Weather and Science categories only occasionally made consumers' top 14 list and were ranked low when they did, meaning there was less consistency in their popularity.

Conclusions/Implications

In sum, both medium-related constraints and freedoms, as well as journalistic influences and individual consumer motivations, can be put forward as possible explanations for consumer news selections on nzherald.co.nz. These factors are, of course, among myriad interrelated factors that shape the news selections of consumers, many of which have not been discussed here. Indeed, focus has been placed on motivations and influences related to the field of political economy.

In some regard, the sets of factors mentioned above can be seen to contradict one another. For example, medium constraints (such as site structure and limited content) and freedoms (such as non-linear exploration of content) work in tandem to shape consumer news selections. Such factors would appear to counterbalance one another. At the same time, journalistic influences and individual consumer motivations operate to shape the news selections of consumers. These factors would also appear to contradict.

What can be said, however, is that despite any apparent contradictions, such factors can and do operate at the same time. They operate within a complex framework of technological, economic, social and political elements, with any number of factors at play, each of which is potentially counterbalancing. Indeed, some factors are likely to be stronger and more determinative than others, while some are likely to be tempered by the presence of other factors – as with the factors related to journalistic selections, where the influence of commerce is arguably tempered by the presence of professional values. In any case, each of these factors relates to the idea of consumer agency, which previous research has indicated is strong online (Curtain, Dougall & Mersey, 2007; Boczkowski, 2010a; Althaus & Tewksbury, 2002).

However, again, there appears to be both evidence of consumer agency and a lack of it in the results of this research. On the one hand, agency shines through in the unique story data. Comparing the unique stories selected only by journalists and only by consumers, the data

suggests that without the influence of journalists, consumers might select far more Entertainment, Sports and Crime stories than they presently do. The divergent news selections of consumers skew heavily towards these three topics. A similar suggestion was made by Boczkowski and Mitchelstein (2013) when considering the unique story selections of consumers. The authors noted that “if [journalists and consumers] were more sheltered from knowing what the other group wants, journalists and consumers would diverge even more in their thematic choices for news” (Boczkowski & Mitchelstein, 2013, p. 45).

On the other hand, the results for Hypothesis 1 show a close matching between the news selections of journalists and consumers. This suggests that consumers might be selecting only those stories appearing at the top of the nzherald.co.nz homepage. Instead of going beyond the front page to find articles that satisfy particular interests, the close relationship between the news selections of journalists and consumers (as evidenced in the results for Hypothesis 1) suggests that consumers may be placing reliance on the judgment of journalists – taking cues from homepage placements.

A reasonable explanation for this apparent contradiction might be that consumers do express agency – selecting stories based on their own individual interests – but that this agency is disguised by the fact that journalists track consumer interests and match their news selections with those of consumers. The resulting impression of this story-matching process would be that consumers have little agency because each group appears to select largely the same stories.

In any regard, taking into account the observations above, there are implications for the future of journalism and the public sphere in New Zealand. First, strong consumer interest in soft and non-public affairs news may have a spiral effect which negatively impacts hard and public affairs news coverage. As consumers go about their browsing online, expressing their agency by selecting news stories from topics such as Sports, Entertainment and Crime that match their motivations and interests, this may influence journalists and their news outputs.

As noted in the discussion chapter for Hypothesis 1, news outlets looking to arrest revenue declines are incentivised to take consumer interests into consideration more and more. The decision-making processes of journalists are being influenced by commercial concerns and changes are being prompted by available technology. As a result of these interplaying factors, there is the potential for a downward spiral to take effect, with news content becoming softer, moving further towards the lowest common denominator. Robinson (2007b) has warned of this in the context of news outlets competing for audiences:

The news business has become increasingly competitive...[W]ith an ever-increasingly fractionalised news audience, even the smallest shifts in ratings can cause news organisations to alter substantially their news focus...[and] those changes do generally move toward a lower common denominator. (p. 10).

Hague and Harrop (2010) further note that as the influences of commerce and audience fragmentation combine, shallower political coverage is incentivised. Indeed, they note, there is no real impetus for commercial media to provide in-depth political coverage, especially when this does not sell and generate profits. The soft news interests of consumers, therefore, prompt profit-seeking private-sector news outlets to generate more entertainment fodder to satisfy their preferences.

Second, there is the risk that – since consumers are better able to follow their own interests online, controlling their exposure to political content, and since journalists appear to be increasingly catering to the soft news interests of consumers – some consumers might become completely disengaged from politics. This disengagement from politics and public affairs may diminish the ability to citizens to make collective, informed decisions about societal affairs (Sunstein, 2007; Pariser, 2011; Stroud, 2011).

Consumers on nzherald.co.nz already show a strong interest in soft and non-public affairs news – and an apparent lack of interest in Government and Politics news – and it is theoretically likely that increased choice and the provision of more consumer-centred news will only deepen engagement with entertainment content while political news is neglected (Tewksbury & Rittenberg, 2015; Boczkowski & Mitchelstein, 2013; Hague & Harrop, 2010). Indeed, Prior (2005) points out that the ability to access news online in an ad hoc, non-linear fashion is a double-edged sword:

New media do indeed increase political knowledge and involvement in the electoral process among some people, just as the optimists predict. Yet, the evidence supports the pessimists' scenario as well. Other people take advantage of greater choice and tune out of politics completely. Those with a preference for entertainment, once they gain access to new media, become less knowledgeable about politics and less likely to vote. (p. 587).

A combination of these factors has the potential to create an information deficit between consumers and impact negatively on the functioning of civil society, with a decreased ability for consensus-building and informed decision-making (Sunstein, 2007; Pariser, 2011). Journalists providing more soft news content does little to address this potential problem. In fact, the provision of more soft, consumer-centred news arguably adds to the problem by limiting the amount of politically-relevant information consumers have access to.

This may not, however, be the whole story. While some consumers might disengage from politics during periods of routine activity, there is evidence that they re-engage when it matters (Boczkowski, Mitchelstein, & Walter, 2012). Generally, Graber (2004) notes that consumers' capacity for absorbing political information and remaining alert at all times is limited. Consumers instead choose to tune in and out of politics when they find it necessary to do so, making them 'monitorial citizens' (Graber, 2004). Boczkowski, Mitchelstein and Walter (2012) point to

evidence of monitorial citizenship, with the authors noting that interest in public affairs news among consumers increases in the lead up to an election. There has been similar evidence found of shifts in consumer interest in public affairs during times of political conflict and protest (Boczkowski & Mitchelstein, 2010). Further, it has been observed that journalists also increase the amount of political news they disseminate during these periods of time (Boczkowski, Mitchelstein, & Walter, 2012).

In this regard, the impact of increased consumer agency may not be all negative for political engagement. Consumer news selections can be seen as being dynamic, shifting and context-dependent. This is something which must be taken into account when studying the news selections of consumers. Different periods of analysis may yield different results, depending on the surrounding circumstances.

Contextually, this study was conducted during a non-election year, which may have been a contributing factor to the results. One of the only major political issues occurring during the time was a debate around the fate of New Zealanders being deported from Australia because of their criminal convictions (and the detention of many on Christmas Island). It was during this period of time that Prime Minister John Key accused Labour Party politicians of “backing rapists”, kicking off heated exchanges in Parliament (Davison, 2015).

Stories surrounding this and the wider issue of detainees on Christmas Island contributed to the number of public affairs news selections for consumers as well as journalists. Apart from this ongoing issue, however, there was little by way of major political news. This may have been a contributing factor to the low number of Government and Public Affairs news selections. It is possible that political and public affairs news selections might have been higher if this study was conducted during the weeks and months surrounding an election or at a time of political upheaval. Future research in New Zealand could probe this theory.

4.4.3 The narrow gap between selections

There will be a gap between the news selections of journalists and consumers.

Consumers will select proportionally more soft news and non-public affairs news stories than journalists. Journalists will select proportionally more hard news and public affairs stories than consumers.

The results for Hypothesis 2 show gaps between the thematic news preferences of journalists and consumers. In particular, findings show a gap between the hard and soft news selections of the two groups. A total of 34.9% of consumer selections were hard news, compared for 43.4% for journalists. Soft news, meanwhile, made up 63.7% of consumer selections, compared to 54.5% for journalists. In terms of specific news topics, there were differences namely between the selection of World, Entertainment, and Odd news stories, with some minor differences between the selection of Business, Crime, Government and Social Issues stories.

Overall, however, thematic differences between the news selections of journalists and consumers on nzherald.co.nz were not large. The gap between hard and soft news selections was not large, nor was the gap between public/non-public affairs news selections. Public affairs made up 22.8% of consumer selections, compared to 29.9% for journalists. The difference between these proportions is not significant, especially considering the results of previous research.

Reasons for the narrow gap

The data for Hypothesis 2 shows that there are only narrow gaps between the news topic preferences of journalists and consumers on nzherald.co.nz. In interpreting such a finding, there are both journalist- and consumer-related explanations. Those explanations relating to journalistic behaviour may be stronger, however.

Large gaps between the selections of journalists and consumers in other studies have been attributed to the impact of professional values on journalistic selections, with journalists choosing to select more public affairs stories out of a sense of duty and responsibility (Boczkowski & Mitchelstein, 2010). Briefly, Boczkowski and Mitchelstein (2010) explain that “journalists prioritise public affairs news due to normative preferences associated with traditional occupational values and organisational mandates” (p. 433). This happens even when journalists discover “a tension between their occupational duty and a desire to increase public appeal” (Boczkowski & Mitchelstein, 2010, p. 433). Consumers, meanwhile, have been seen to gravitate towards non-public affairs because they have a “positive affect and place lower cognitive demands on them than public affairs news” (p. 433). These divergent motivations and behaviours create a gap between news selections. The presence of a smaller gap on nzherald.co.nz may, in this regard, point to a lack of strong journalistic values or a high level of consumer agency. A likely explanation takes into account both factors.

Indeed, regarding journalists, a smaller gap on the site in comparison to other sites might indicate that Herald journalists are forgoing occupational values and choosing instead to follow consumer interests as a way of increasing the appeal of news content. As discussed in Section 4.2, regarding Hypothesis 1, commercial pressures and the availability and use of tracking technology are factors arguably contributing to the similarity in news selections between journalists and consumers. The results for Hypothesis 1 showed that the news selections of the two groups were closely related to one another.

The data in Table 22 suggests that journalistic decision-making may be more causative of this narrow gap than consumer decision-making. Indeed, looking at the divergent selections of journalists and consumers in Table 22, it can be seen that without the influence of consumers, journalists might gravitate much more towards the selection of World, Business, Government, Social Issues and Science stories. Influenced by consumer preferences, however, journalistic

preferences appear to be tempered; they move towards the selection of Crime, Entertainment and Odd news. This tempering of journalistic preferences pushes Crime and Entertainment news up in the overall topic rankings, especially.

Overall, figures in Table 22 suggest that consumers are following their own interests and it is journalists changing their news selections to match. Although there is some journalistic influence on consumer selections apparent in this data – with indications that journalists influence consumers to select more World, Government and Business news – this influence does not appear to be as great (apart from the apparently strong influence journalists have on consumers' selection of World stories). Topics especially popular with consumers (Entertainment and Crime) rank higher overall in combined/overlapped news selections than topics (Government, Business and Social Issues) which are especially popular with journalists.

Table 24 shows the combined number of unique story selections from journalists and consumers for all 14 news topics. This data shows the predominance of Entertainment and Crime news selections over Business, Government and Social Issues news selections. Sports is a category favoured by both groups. The only clear influence of journalists on consumers occurs with regard to World news.

Table 24: Combined news topic selections (journalists and consumers, 'unique story' data)

Topic	Unique stories %
Sports	18.4 (n = 147)
World	11.7 (n = 94)
Entertainment	11 (n = 88)
Crime	10.4 (n = 83)
Business	8.2 (n = 66)
Government	7.4 (n = 59)
Social Issues	6.5 (n = 52)
Accident	6.4 (n = 51)
Odd	6.3 (n = 50)
Opinion	4.4 (n = 35)
Other	3.6 (n = 29)
Lifestyle	2.4 (n = 19)
Science	2.4 (n = 19)
Weather	1.1 (n = 9)

In this regard, then, consumers appear to have more of an influence on journalists than the other way around. This conclusion is only speculative, however. Nevertheless, this proposition does find support in the findings of Lee et al. (2014). In their study of journalistic and consumer news selections and story placements, the authors concluded that consumers had a greater influence on journalistic decision-making than the other way around.

It may be that journalists at nzherald.co.nz, as a result of commercial pressures and technological influences, are following the behavioural trends witnessed by Anderson (2011a) in his study of the Philly.com newsroom. In that newsroom, Anderson (2011a) saw journalists following consumer interests “almost obsessively” (p. 560). In fact, Anderson (2011a) stated that “it is not an exaggeration to say that website traffic often appeared to be the primary ingredient in Philly.com news judgment” (p. 561). If this is the case for nzherald.co.nz, it implies that commercial influences are a driving force behind the matching of news selections.

Indeed, as argued in the discussion chapter for Hypothesis 1, news outlets under financial pressure are incentivised to reduce the gap between journalistic and consumer news selections because this increases the appeal of news to consumers. And when there is an alignment between the interests of journalists, consumers and advertisers, such a convergence of news supply and demand is likely to be beneficial financially (Turow, 2005). It may be that journalists at nzherald.co.nz have realised this and come to terms with the fact that it is necessary financially to forgo strong journalistic values in favour of pleasing advertisers and the largest number of consumers possible by matching news supply with news demand.

Despite this evidence, there is still evidence that consumers might play a role in creating the narrow gap in news selections. The results for Hypothesis 1 suggest that consumers select largely from the news stories available at the top of the nzherald.co.nz homepage. The positive relationship between consumer clicks and journalistic homepage rankings and the close matching between story selections are indicative of this. However, at the same time, these findings are also indicative of journalists following consumer interests. There is, after all, a two-way relationship operating and this study has not probed any causal direction. Notwithstanding this, it can be suggested that nzherald.co.nz consumers do take cues from journalistic placements and this is a potential reason for the narrow news gap – consumers following journalists.

Again, however, these are only tentative findings and speculative conclusions. There are numerous factors that go into news selections and there are many unaddressed reasons why the news gap between journalists and consumers on nzherald.co.nz might be narrow.

Conclusions/Implications

If the inferences related to journalists are true, then there are implications for journalistic gatekeeping and agenda-setting. As noted in the discussion for Hypothesis 1, there is the potential for reduced power among journalists and more say on the part of consumers as a result of political-economic influences. The need to boost audience numbers and attract advertising revenue sees journalists increasingly following consumer clicks. But following consumer interests means sacrificing some journalistic independence and replacing news stories which may be important with news stories which might be popular.

Based on the findings of this research, there is some evidence that this is already occurring. The influence of clicks on homepage placements is apparent and it could increase as news outlets such as the Herald face further financial uncertainty. As noted, financial pressures have already increased the relevance of the 'audience agenda' to journalists and any additional pressures are likely to increase the relevance of consumer preferences further.

Already there is evidence that consumers are having a larger impact on journalists than the other way around. Lee, Lewis & Powers (2014) found that clicks informed homepage placements more so than the inverse. Further, Bright and Nicholls (2014) have also observed that consumers are having a "clear impact on journalistic practice" (p. 178). In relation to gatekeeping, Lee et al. (2014) note that:

The "audience channel" indeed has a growing role to play in the overall gatekeeping of news and public information online. In particular, digital audiences are driving a subsidiary gatekeeping process that picks up where mass media left off, as they share news items with friends and colleagues, and as they communicate collective interest via the aggregate popularity of certain stories. (Lee, Lewis, & Powers, 2014, p. 519).

There are implications for future news content as a result of this. While relatively high, it remains that only 62.9% of the news selections of journalists and consumers matched list-wise on nzherald.co.nz. This leaves room for news selections to increase even further in resemblance – towards the 100% mark. With convergence of interests financially incentivised, what might be witnessed in future is an even closer matching of news selections and an even softer news supply. Journalistic news selections may move even further towards the soft news preferences of consumers. This would see a continuation of the trend towards the lowest common denominator – an ever-increasing softening of news.

Further, there is the potential, as a consequence of the available technology and the financial pressures on newsrooms, for algorithmic journalism to emerge and take hold. Anderson (2011b) observes that this approach to journalism arises from the existence of tools which can easily collect and make use of 'big data'. It favours consumer preferences entirely, putting their interests at the centre of the news production process. It works by aggregating consumer preferences and filtering this information to news producers who can create content that matches such interests. This 'algorithmic journalism' is a product of the need to capture and hold the attention of sporadic and fragmented audiences. It is also a product of news outlets facing declining audience numbers and declining revenues. This model of journalism sees algorithms as a proxy for journalistic judgment and technology as a solution to the problems facing the industry. "It is in number crunching that the ultimate guarantor of both communicative democracy and business model success can be found," Anderson suggests (2011b, p. 540).

Overall, given the troubles contemporary news outlets face, the rise of pure algorithmic journalism is not a far-fetched concept. Indeed, it seems that many newsrooms, including the Herald newsroom, are already moving in the direction of algorithmic journalism because of the potential financial benefits of matching journalistic supply with consumer demand. Research has shown that clicks and web tracking tools are influencing journalistic decision-making, informing news selections and placements. Such influences are, at the same time, shaping the nature of journalistic news outputs and leading to a rise in the soft news production. These processes may lead to the disappearance of a gap between the news selections of journalists and consumers. Indeed, at the Herald it appears as if this is already taking place.

4.5 Hypothesis 3 – Results and findings

The news selections of journalists and consumers will become softer/less public affairs oriented over the course of a day.

Hypothesis 3 looks specifically at news selections over time. It seeks to assess whether rates of hard and soft news selections, as well as rates of public affairs and non-public affairs news selections, increase or decrease over the course of a day. Hard news stories are those stories which, as noted, are from the Government and Politics, Business and Economics, World Affairs, Science and Social Issues categories. Soft news stories are those stories which are from the Accident and Emergency, Crime, Entertainment, Odd and Viral, Lifestyle, Opinion, Sports and Weather categories. Stories from the 'Other' category have been excluded from the analysis because the category is ill-defined. Public affairs and non-public affairs stories have the definitions ascribed to them in Section 3.4.

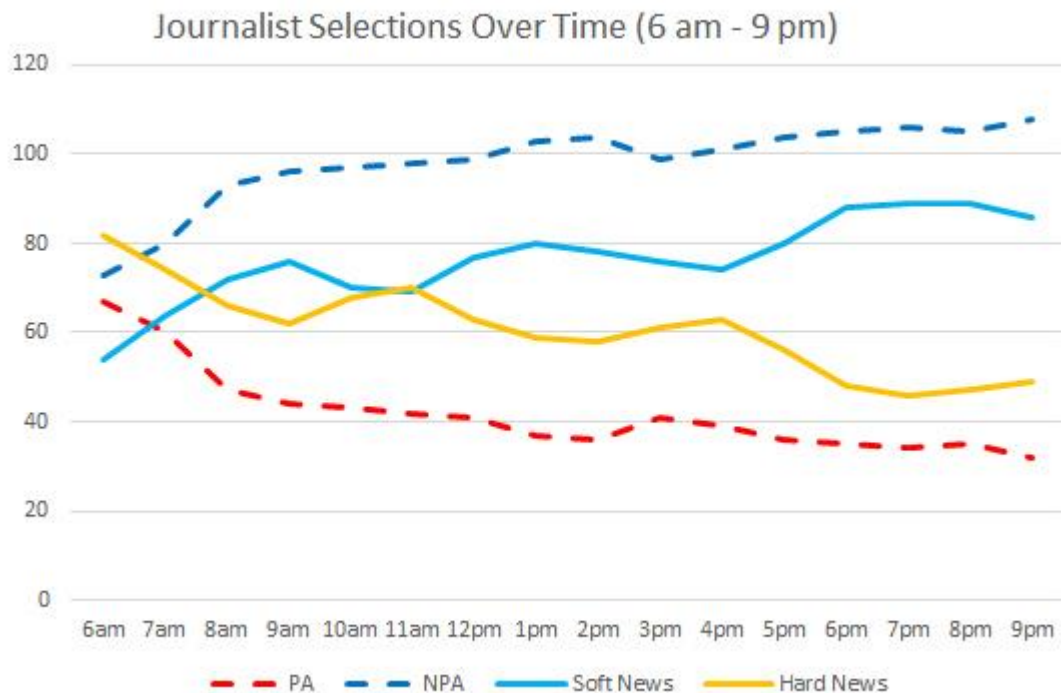
To facilitate this analysis, 'all story' data for the news selections of journalists and consumers from 6am-9pm was graphed. This 'all story' covers selections over time.

4.5.1 Journalistic selections over time

Figure 14 shows the number public affairs, non-public affairs, hard news and soft news story selections made by journalists every hour over the sampled days. There are 2,240 data points graphed for public affairs/non-public affairs selections and 2,194 for soft/hard news selections (lower because of the exclusion of the 'Other' category).

Overall, the data shows a steady decrease in the number of hard and public affairs news stories over the course of a day. Correspondingly, the data shows a steady increase in the number of soft and non-public affairs news stories.

Figure 14: Journalists' news selections over time



The data indicates that journalists selected more hard and public affairs news at the beginning of the day than at any other time. However, the levels for each decreased from 6 am onwards, reaching their lowest points in the evening. In terms of hard and soft news selections, the crossover point occurred at 8am, with soft news on an upward trajectory and hard news on a downward trajectory. From this point onwards, soft news selections largely outweighed hard news selections. The two categories did, however, come together at 10am and 11am. In fact, hard news selections ($n = 70$) topped soft news selections ($n = 69$) at 11 am, but only by a single story. Selections diverged again from that time.

Overall, between 6am and 9pm, hard news selections saw a drop of 33 stories, while soft news selections saw an increase of 32. The hard news selections of journalists reached their lowest point at 7pm ($n = 46$), while soft new selections reached their peak at 7 and 8pm ($n = 89$ each). The largest gap between hard and soft news selections (43 stories) occurred at 7pm.

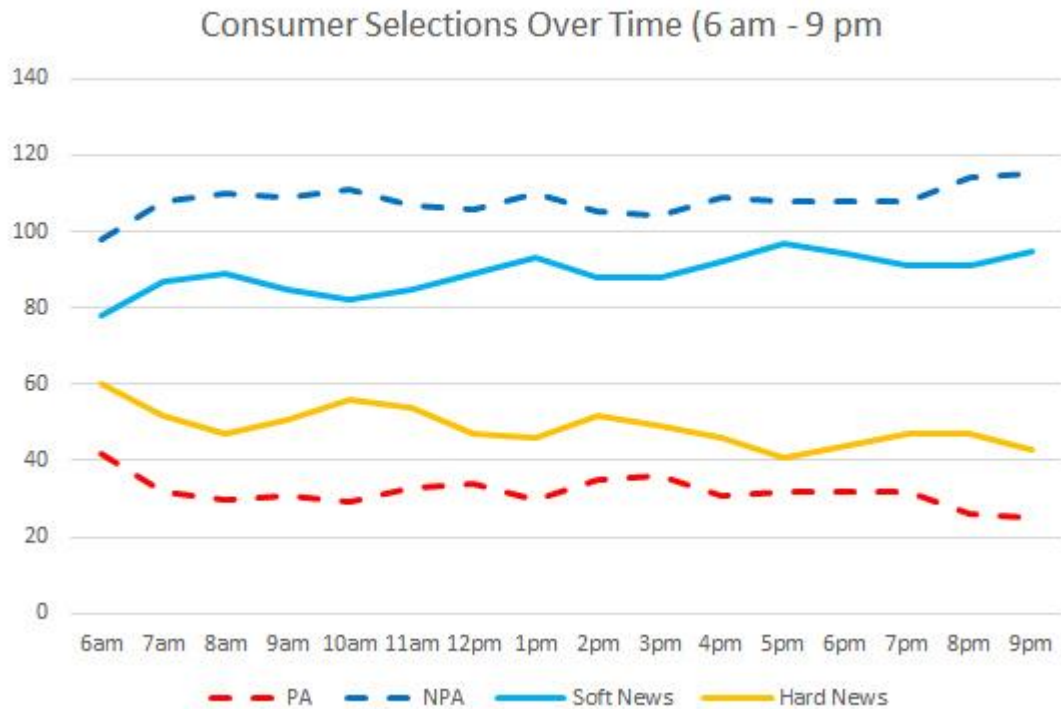
Public affairs and non-public affairs selections were more divergent. They were closest at 6am, but quickly departed from one another. The largest gap between public affairs and non-public affairs news selections (76 stories) was at 9pm. Unlike hard and soft news stories, these news categories did not overlap at any point. Between 6am and 9pm, public affairs selections saw a drop of 35 stories, while non-public affairs selections saw an increase of 35.

4.5.2 Consumer selections over time

Figure 15 graphs the number public affairs, non-public affairs, hard news and soft news selections made by consumers every hour over the sampled days. There are 2,240 data points

graphed for public affairs/non-public affairs selections and 2,206 for soft/hard news selections (again lower because of the exclusion of the 'Other' category).

Figure 15: Consumers' news selections over time



Shifts over the course of a day were not as large for consumers as they were for journalists. There was a slight downward trend in the number of hard news and public affairs stories selected by consumers, with fewer selected in the evening than in the morning. Between 6am and 9pm, the number of hard and public affairs news stories both dropped by 17. There was a correspondingly small increase in the number of soft news and non-public affairs stories selected over the course of a day, with more of these stories selected in the evening than in the morning. Between 6am and 9pm, the number of soft and non-public affairs news stories selected increased also by 17. Overall, despite slight upward and downward trajectories, rates of selection for soft and non-public affairs news were consistently high and rates of selection for hard and public affairs news consistently low.

Consumers' hard and public affairs news selections were at their peak both at 6am ($n = 60$, $n = 42$) and their lowest points at 5pm and 9pm respectively ($n = 41$, $n = 25$). There were minor fluctuations in selections between the morning and the evening, with an overall downward trend, as noted. Conversely, consumers' soft and non-public affairs news selections reached their peaks at 5pm and 9pm respectively ($n = 97$, $n = 115$) and their lowest point together at 6am ($n = 78$, $n = 98$). Again, there was a similar pattern of minor fluctuations, with a slight upward trajectory. The largest gap between hard and soft news selections ($n = 56$) occurred at 5pm. The two categories were closest at 6am, with a gap of 18 stories. Meanwhile, the largest gap between public and non-public affairs news selections ($n = 90$) was at 9pm. Again, as with journalistic selections, the two categories for consumers were closest at 6am, with a gap of 56 stories.

4.5.3 Comparing selections over time

Comparing journalistic and consumer selections directly, it can be seen that the selections of each group follow similar patterns. Looking at Figure 16, journalist and consumer selections of public affairs and non-public affairs stories have the same trajectories. Selections are closest at 6am and then diverge from that point, with the number of public affairs stories decreasing and the number of non-public affairs stories increasing. Journalists, however, select more public affairs stories and fewer non-public affairs stories than consumers at all times. The difference between the numbers of selections made by the two groups is not large, however. The gap is largest at 6am, with a difference of 25 stories between journalists' and consumers' public affairs and non-public affairs selections. From that point onwards, the gap between the selections of each group narrows, with a difference of only 7 stories for each at 9pm.

Figure 16: Journalist and consumer selections over time (public affairs)

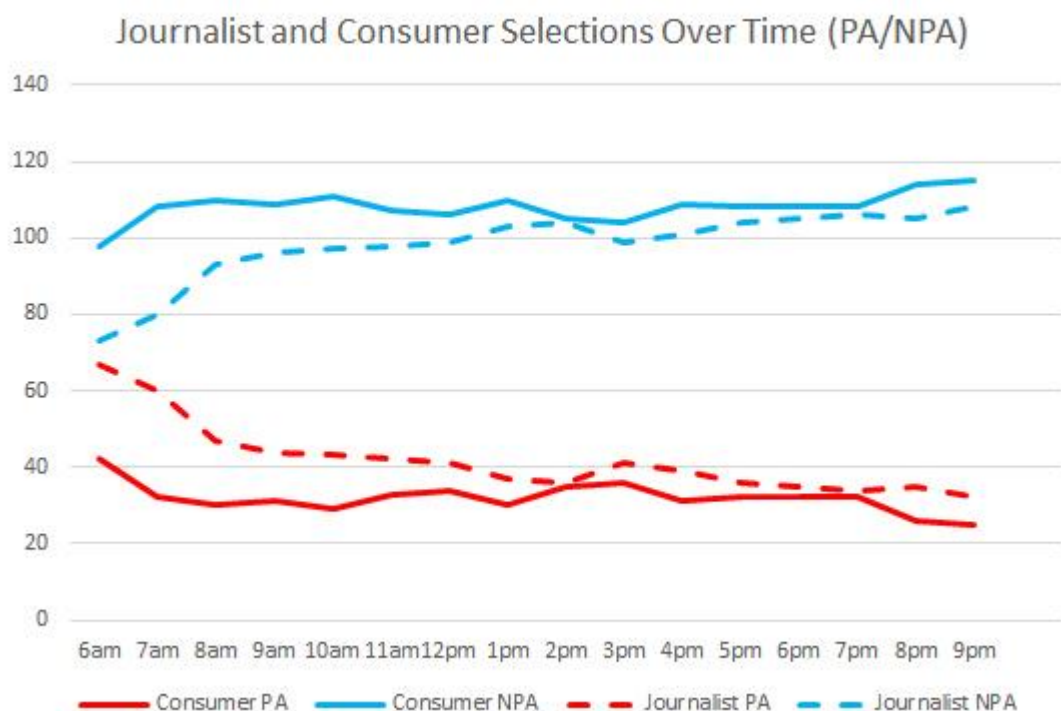
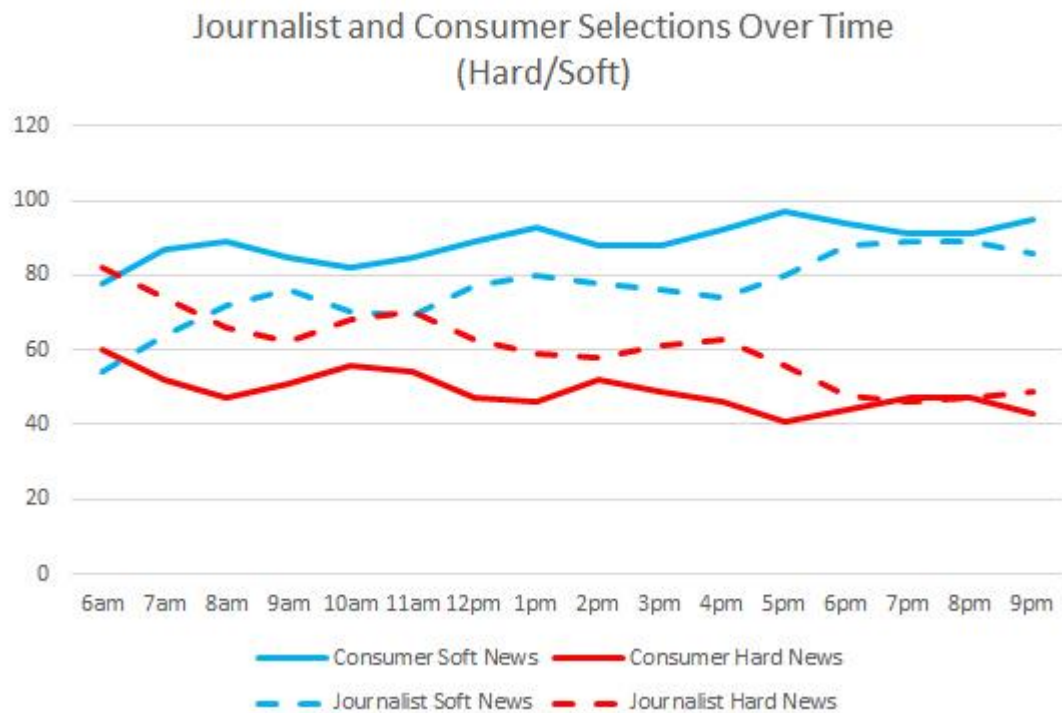


Figure 17, meanwhile, shows the pattern of selection for hard and soft news stories. Again, journalists selected more hard news stories than consumers at all times, apart from at 7pm and 8pm, where selections converged. At 7pm, consumers selected one more hard news story than journalists ($n = 47$, compared to $n = 46$), while at 8pm they selected the same number ($n = 47$). These were the only times hard news selections converged, however. In terms of soft news, consumers selected more soft news stories than journalists at all times, with no crossover. Nevertheless, the gap in selections between the two groups narrowed over the course of the day. The gap in soft news selections at 6am was 24 stories, while at 9pm it was 9 stories. Meanwhile, the gap in hard news selections at 6am was 22 stories and at 9pm it was 6 stories.

Figure 17: Journalist and consumer selections over time (hard news/soft news)



Overall, despite differences, it can be seen that the gap between journalistic and consumer selections became smaller over the course of the day. With regard to public affairs/non-public affairs news selections, there was a larger gap between the two groups from 6am to 9am, but the gap between the two groups from that period onwards is consistently narrow. The narrowing of the gap between the two groups over the course of the day is indicative of increased agreement over time. With regard to hard/soft News selections, the pattern was the same. The gap in selections between the two groups was largest from 6am to 8am and narrowed from that morning period onwards, with the gap eventually disappearing in the evening.

Conclusion

Regarding Hypothesis 3 – “The news selections of journalists and consumers will become softer/less public affairs oriented over the course of a day” – this finds support in the results. News selections for journalists and consumers followed the same trends, with more soft and non-public affairs news stories being selected over time and fewer hard and public affairs news stories selected. Selections, in sum, do become softer and less public affairs oriented over the course of a day. The thematic gap between the news selections of each group also gets smaller over time.

4.6 Hypothesis 3 – Discussion

The data related to Hypothesis 3 shows that the news selections of journalists and consumers become softer over the course of the day. This is a finding related to online news which does not appear to have any comparator in the literature. Indeed, there is a limited amount of research in this area and time, on a micro-level, has been largely unassessed academically. This is perhaps due to issues associated with data collection. As Karlsson and Stromback (2010) note, there are several reasons why literature is limited:

There are several problems with existing research on the content of online news. The first is that there are still rather few systematic studies of the content of online news. The second is that few analyses of online news content take the special characteristics of online news into consideration, hence disregarding the interactivity and immediacy of online news. The third is that research on the interactivity and immediacy of online news mainly focuses on the news site-level rather than the news story-level of analysis. Four, and consequently, there are still only a few studies on the extent to which online news stories are affected by immediacy and interactivity. (p. 6).

Nevertheless, there is research which indicates that the news selections of consumers can and do shift based on the surrounding political and social context. For example, there have been differences witnessed in levels of public affairs news interest among consumers between periods of routine political activity and at times when there have been elections and political crises (Boczkowski & Mitchelstein, 2013). However, these have been macro-level studies. Such shifts have been seen across weeks, months and years, rather than across a day. In the same vein, Boczkowski (2010a) notes that there are shifts between weekends and weekdays in terms of the level of interest consumers and journalists show in particular types of news stories (particularly sports). But again, these are shifts seen between days and not hour-to-hour.

What this means, then, is that there is little research to support assertions about possible causes of or reasons for this softening of news content and narrowing of the news gap over the course of a day. Nevertheless, there are some suggestions which can be made.

Explanations for findings

Production schedules

For journalistic selections, this softening of the news agenda may be a result of the Herald's cycle of news production and dissemination. The nzherald.co.nz website is tied to the print edition of the Herald, with the same news articles often appearing in both. Typically, news content which appears in the paper edition of the Herald is posted en masse on nzherald.co.nz early in the morning (to coincide with the release of the newspaper). The potential effect of this

mass posting of newspaper content on nzherald.co.nz early in the morning may be to boost the proportion of hard and public affairs news content on the website (as well as the amount in journalists' top story list). Indeed, Maier and Tucker (2012) point out that newspaper copy tends to be more focused on hard and public affairs news topics than copy produced for the web. This is because newspapers tend to have more time to spend on stories, allowing more difficult topics to be tackled. Fast-paced online news cycles encourage the production of quick, cheap news. This results in paper copy being deeper and more analytical, while online copy is broader and briefer (Maier, 2010).

If the same is true for the Herald – with print copy being more hard news oriented – then the higher level of public affairs news at 6am and the subsequent drop off may be explained by the publication of this newspaper content in the morning, the gradual phasing out of this content over the day, and its replacement with newly-produced soft news. Boczkowski (2010a) observed a similar cycle of production in his analysis of newsrooms in Argentina. He noted that, in the morning, print copy often had a “strong presence” on the homepages of the two websites he was analysing (Boczkowski, 2010a, p. 122). The production of new online stories eventually led to the displacement of these print articles, Boczkowski saw, and their eventual disappearance from the homepage.

In terms of soft news, newsroom routines are arguably a factor driving the production of this content throughout the day. Regarding the general pace of news production and the turnover of stories, news stories remained on journalists' top list on nzherald.co.nz for only 3.9 hours on average, indicating high homepage turnover (Bright & Nicholls, 2014). In light of this fact, it can be argued that nzherald.co.nz is employing what Boczkowski (2010a) calls “a regime of constant publication of breaking and developing news during the day” (p. 3). With hard morning news stories only remaining on journalists' top list until midday, new stories must be produced and published to replace them. This is part of a regime to foster consumer engagement, encourage repeat-returns to news websites and increase the overall number of clicks (Boczkowski, 2010a).

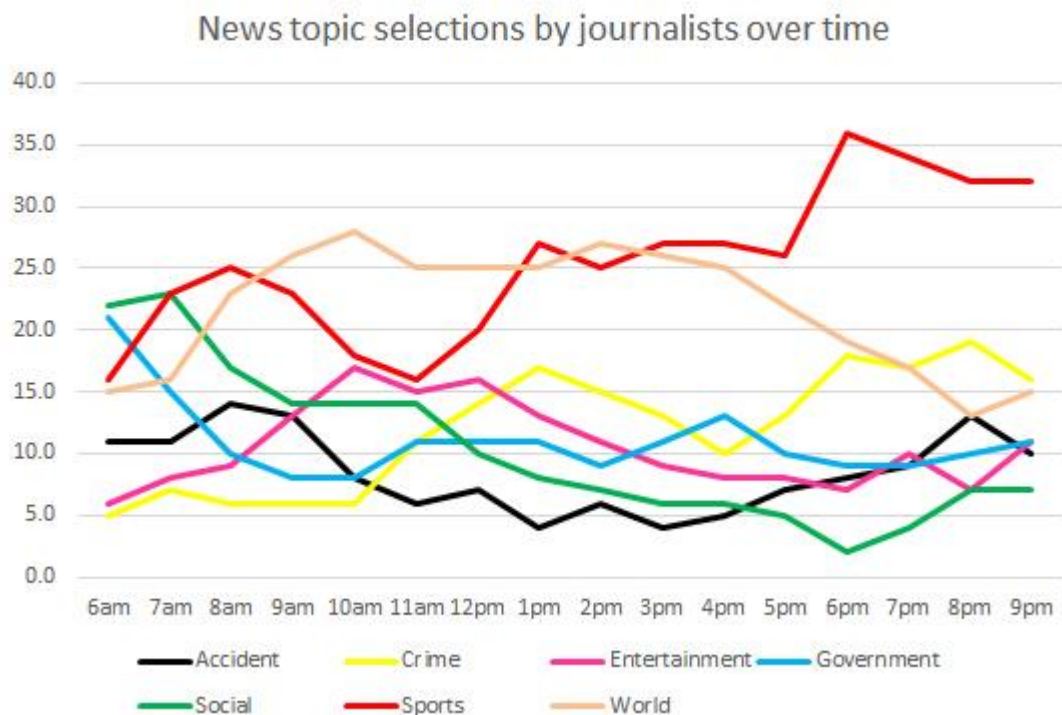
Again, these newly-produced online-only stories, as Maier and Tucker (2012) observe, are more likely to have soft news features. They are stories which are local, quick-hitting and focused on breaking news because this is the most economically rational way to approach fast-paced online news production (Maier & Tucker, 2012). The authors discovered in their comparison of print and online news content that,

The online newspapers turned to an old-fashioned mainstay of news coverage: the police blotter. Crime and law enforcement was the leading news topic for the online newspapers, accounting for more than 28 percent of the top stories posted on the three news websites studied. The online news sites also gave greater prominence to sports stories than did their print counterparts. The focus on crime and sports likely reflect the practical reality that online news operations, relatively short-staffed, tend to pursue

breaking news stories that are timely, easily accessible and quickly covered. (Maier & Tucker, 2012, p. 59).

If nzherald.co.nz – also being short-staffed and on a budget – is following the same process, generating quick, inexpensive news, then the production of this new online-only content will be contributing to the softening of the news agenda over the course of the day. Indeed, it appears likely that the Herald is following the same logic as those news outlets studied by Maier and Tucker, given the softening of news selections over time and, specifically, the increasing number of Sports and Crime stories appearing in the data over time. Figure 18 shows a brief snapshot of this data.

Figure 18: Journalists' topic selections over time



In this regard, Maier and Tucker's analysis of news production trends may be a partial explanation for the findings of Hypothesis 2.

Influence of technology

The softening of the news agenda and narrowing of the news gap over time may also be a result of the aggregation of data about consumer news preferences over the course of the day. As noted, changes in journalistic behaviour have come as a result of the availability of tracking technology and the visibility of consumer preferences to journalists. Journalists have been seen to make decisions based on this information about consumer preferences (Anderson, 2011a; MacGregor, 2007; Karlsson & Clerwall, 2013; Schlesinger & Doyle, 2015). As Boczkowski (2010a) notes, "in the past it was easier for journalists to avoid regular exposure to figures about consumer behaviour, but this avoidance has become more difficult in the contemporary setting"

(p. 146). He adds that “increased awareness of the public’s preferences is an element of the everyday routines of journalists” (p. 148).

The same appears to be true for the Herald. Journalists at nzherald.co.nz make use of Chartbeat, an online tool that allows journalists to track reader clicks in real time. They also make use of comScore, an analytics tool that collects data about reader clicks over time (whether that is an hour, two hours or an entire day). The use of such tools means data is being fed constantly into the newsroom, prompting discussions at news meetings about popular stories.

As more information about consumer preferences is collected during each particular day, this has the potential to shape journalistic decision-making. The more data journalists collect, the more they learn that consumer preferences are substantively soft (as shown in the results for Hypothesis 2). If they are looking to please audiences, the dissemination of more soft news is therefore incentivised. And if it is seen, as the day progresses, that consumer interests are leaning towards softer stories, this may prompt journalists to follow them. This entails a softening of the news agenda and a narrowing of the gap between journalistic and consumer selections over time. Again, this comes back to economics and the incentives journalists have to appeal to consumer preferences – discussed in relation to both Hypothesis 1 and Hypothesis 2a/2b.

Routines, habits, and cognitive demands

For consumers, the softening of news selections over time may be related to routines, habits, sociability and the cognitive demands of news reading. As Boczkowski (2010b) observes, consumers generally access news online in the morning as part of their daily routines. They focus, during this morning period, on print news content (Boczkowski, 2010a), browsing sites in a “methodical and comprehensive” way (Boczkowski, 2010b, p. 476). This morning content consumers select, as seen in the data related to Hypothesis 3, is harder and more public affairs oriented than content selected at other times.

Subsequent visits to news websites by consumers are “punctual, unsystematic, and not habitualised” (Boczkowski, 2010b, p. 48). These visits later in the day are “limited, disorganised, brief, and focused on breaking news or some other form of novel content” (Boczkowski, 2010a, p. 124). In brief, there are a different set of motivations informing subsequent or later-in-the-day visits. These motivations – to alleviate boredom, to relax, to learn about breaking stories, et cetera – spur the selection of soft news stories. The enactment of such motivations, therefore, may lead to the softening of news selections over time as methodical, comprehensive morning reading is displaced by sporadic and disorganised reading later in the day.

The softening of news selections over time may also be a product of consumers’ social interactions. As people interact during the day, there is an impetus for consumers to seek out

and read news articles related to topics brought up in conversation (Boczkowski, 2010a; Boczkowski, 2010b). These topics tend to be lighter, relating more to soft news than hard news. Generally, in terms of sociability, there is a focus on 'watercooler' stories that facilitate social interactions with others and an avoidance of heavy topics (Martin, 2008). Indeed, regarding serious news consumers, Martin (2008) observes that it is often hard for them to find people with whom to discuss public affairs news and that people generally avoid having conversations about serious or controversial news topics. For those who read online news at work, there is an observed trend towards the discussion and sharing of light news stories (Boczkowski 2010b). This occurs because news co-workers wish to avoid difficult or sensitive topics that are not considered appropriate workplace fodder (Boczkowski, 2010a).

Thus, the workplace environment has a particular impact on how people engage with news and what stories they read. The workplace is important because, as Boczkowski (2010b) discovered in his study, half of consumers read online news exclusively at the office. Further, it is also important because, as Boczkowski (2010b) notes, "news consumption remains intertwined with, and shaped by, existing social relations" (p. 481). The avoidance of serious news topics and privilege given to soft news topics, particularly at work, therefore means that soft news is likely to be more read over the course of the day. This provides a potential explanation for the findings for Hypothesis 3 related to consumer news selections.

Overall, the routines and habits of consumers, as well as the social environment, provide possible explanations for the softening of news selections over the course of the day. Herald consumers may focus on hard news stories in the morning before work or at the beginning of their shift because of their particular habits and routines. As they read more news throughout the day, they may focus increasingly on softer stories that facilitate positive social interactions with friends and co-workers. In the evening, news selections may also be soft because such stories make lesser cognitive demands of people (Boczkowski & Mitchelstein, 2013). In this regard, evening news consumption may be underscored by a desire for enjoyment and relaxation – especially after a long day at work. However, to better assess reasons for changes in consumption habits over time, a qualitative assessment of consumer news reading would have to be conducted. Inferences can only be made here.

Conclusions

The results of this research show that the news selections of journalists and consumers are both dynamic and changing. They show that the news selections of both groups get softer over time. They also show that there is a consistent (small) gap between news selections, but that this gap gets smaller over the course of a day.

The factors mentioned above may contribute to the softening of the news agenda and the narrowing of the thematic gap in selections over time. In terms of implications, what this means,

then, is that if any of these influences on news selections becomes stronger, news selections may become even softer and the news gap may narrow even further or completely disappear.

This is perhaps most likely to happen with regard to the influences on journalists. The day-to-day routines of consumers may be unlikely to change. Journalistic routines, however, are subject to a raft of pressures that are arguably more likely to have a noticeable impact on news content. Specifically, commercial pressures are the main concern. Commercial media companies are vulnerable to market downturns and financial shocks can have large impacts on newsrooms (Hirsch & Thompson, 1994). In this context, if the Herald were to face a direr financial situation, soft news production could increase. The restricting of budgets, cutting of staff or abandonment of the Herald newspaper could have a negative impact on hard and public affairs news production, with less time and money to spend on important issues. Soft news production would likely increase in such a situation because soft news is cheaper, quicker, and easier to produce while also being more likely to draw in consumers who are attractive to advertisers. This situation could also see the news selections of journalists and consumers becoming even closer, since a matching of news supply and demand is arguably beneficial to the bottom line.

Indeed, the evidence put forward in relation to Hypotheses 1 and 2a/2b suggests that it would be journalists changing their news selections to better match with the soft news interests of consumers in difficult economic conditions. The impact of commercialism and the influence of technology have already been manifest in the decision-making processes of journalists because of commercial pressures (Karlsson & Clerwall, 2013; Anderson, 2011a; Vu, 2014; Tandoc, 2014), and indications are that consumers have a greater influence on journalists than the other way around (Lee, Lewis, & Powers, 2014).

Overall, in crude economic terms, soft news is a win-win for news outlets facing tough conditions. And it would likely have an increased presence on nzherald.co.nz if there were to be an economic downturn affecting NZME's bottom line.

Overall Conclusions and Implications

This study has made several findings related to the online news selections of nzherald.co.nz journalists and consumers.

First, it was discovered that the news selections of these two groups are closely related; that the top 14 selections for each group matched to a significant degree across hours and days. It was also found that these selections increased in resemblance over the course of a day. Further, it was discovered that there was a correlation between journalistic homepage rankings and consumer pageviews/rankings. This correlation accounted for a quarter of variation in scores for each of the ranking measures.

Second, it was found that the news selections of journalists and consumers were both, in terms of thematic composition, centred on soft news (54.4% of journalistic selections, 64.3% of consumer selections) and non-public affairs news (70.7% of journalistic selections, 78.1% of consumer selections). Each group, in particular, had a strong focus on sports as a news topic. They also both rated crime news relatively high. Apart from the overall tendency towards soft news topics, however, both groups did have a reasonably solid focus on world and business news. But at the same time, the focus on news about government and politics or social issues was not as strong. Further, it was discovered that there was a thematic gap between the news selections of each group, but this gap was small.

Third, this research observed a pattern in terms of the thematic makeup of news selections over time. The selections of both journalists and consumers became softer over the course of a day. Generally, the number of soft and non-public affairs news stories selected by each group increased over time. Meanwhile, the number of hard and public affairs news stories decreased. The small gap between the news selections of each group narrowed over the course of the day.

These findings have several ramifications. First, as discussed, there are implications regarding journalistic gatekeeping and agenda-setting. Journalists at the Herald (and NZME) serve as news providers for the public and the decisions they make regarding news content are important. These journalists, as a result of audience fragmentation and financial pressures, appear to be losing some their control over news content and editorial direction to consumers, who are diasporic, attention-thin and empowered by the freedom of choice afforded to them online. In this regard, journalists are losing gatekeeping and agenda-setting power to consumers who show an apparent disinterest in political and public affairs news. These consumers choose instead to click on stories about sports, entertainment and crime and journalists in the newsroom appear to be following these interests.

There are issues arising from this consumer behaviour. There are implications for public discourse and online consensus-building. This lack of engagement with political news on the

part of consumers raises concerns regarding the quality of public discourse, public debate and the ability of citizens to engage in consensus-building (Sunstein, 2007; Pariser, 2011). Further, the apparent avoidance of political news raises concerns related to the impaired ability for a robust, informed democracy to thrive in New Zealand without adequate engagement with public affairs issues.

Regarding this problem, journalists do not appear to be helping. In fact, they appear to be contributing to the issue, disseminating a large amount of soft and non-public affairs news and placing little emphasis on public affairs issues. In fact, journalistic judgment regarding what news to produce and disseminate appears to be increasingly affected by what will interest consumers, what will please advertisers and, overall, what will make money. Decision-making is being shaped by clicks and, in this regard, traditional journalistic judgment is falling by the wayside, being replaced by commercial logic, and this arguably has a negative impact on the quality of public discourse in New Zealand. The actions taken by journalists at the Herald and NZME are doubly important, also, given the size of the organisation in the New Zealand news media market and the large role the Herald plays in disseminating news to the public.

Second, there are implications for future news content. In an online environment where competition is fierce, advertising revenue is difficult to pull in and where consumers have greater agency, there is the potential for news to become even softer – becoming increasingly consumer-centred and moving more towards the lowest common denominator. On the part of journalists, a drive for audience numbers and revenue poses a risk to the production and dissemination of serious news about important governmental and societal affairs. On the part of consumers, a desire for entertainment and to avoid the cognitive effort it takes to engage with meaningful issues poses a risk to the consumption of hard news. Indeed, the news selections of journalists and consumers are already substantively soft and the raft of continuing pressures and influences on both groups – journalists, in particular – only points towards a further softening of the news agenda as a consequence.

In this environment, with the news selections of both groups being substantively soft and perhaps getting softer, it is both journalists and consumers who bear blame. The choices of each group are inputted into a feedback loop, with the news selections of consumers influencing the news selections of journalists and vice versa. Without any meaningful change to the routines, habits and decision-making processes of either group, a downward spiral will only continue.

However, the role of journalists in this softening of news appears to be greater than the role played by consumers. In this regard, it may be incumbent on journalists and news organisations to make the first move towards the re-establishment of a public affairs news agenda. It is journalists who appears to be the most impacted by contemporary circumstances and it is journalists who have, in some regard, the professional duty to place an emphasis on the production and dissemination of engaging public affairs news. After all, the ideal of journalism is

arguably to inform and educate the public for the betterment of society generally. If journalists do not have their eyes on that ideal – with their eyes, instead, on revenue – then there is a risk that good journalism will fall under the wheels of the charging carriage of commercialism.

However, at the same time, it can be argued that private-sector news organisations have no duty or responsibility to necessarily do anything for the benefit of society and it could be argued that it is too much to expect profit-driven entities to perform a public service. Indeed, it can be argued that the public – given their strong interest in soft and non-public affairs news – does not appear to consider it essential for private-sector news media companies to provide such public affairs information. ‘News you can use’ may be enough for many people in New Zealand, with many perhaps not seeing the personal benefit of consistently reading about politics, social issues or science. The results of this research point in that direction. Indeed, as Graber (2004) notes, many citizens – being monitorial citizens – can and do operate on a low-information diet, performing their political obligations on a limited supply of information. New Zealand consumers appear to be the same, though more research is needed into the potential influence of political context on news selections.

The conclusions and implications noted here are somewhat limited to the New Zealand context and the context of nzherald.co.nz. Nevertheless, given the amount of data collected and the size and reach of the Herald website, general conclusions can be supported. Specific limitations are considered in the next section.

Limitations and Future Research

The specific limitations of this research are twofold, relating to the research design/methodology and the position of the researcher.

First, regarding the position of the researcher, there is a limitation in terms of the perception of independence and neutrality. As noted, the researcher was employed at the Herald during the period of data collection (working weekends), generating some risk of bias. Neutrality and independence concerns are mitigated, however, by the fact that this study reports raw quantitative data. The figures given in the results chapters of this thesis are without bias. They are reported as-is, with no room for personal thoughts to enter the equation. Again, the decision to use the Herald as a case study was made, in part, due to the unique access the researcher had to detailed click data. This was an opportunity taken for the purposes of advancing knowledge about the news interests of journalists and consumers. In this regard, the researcher has no bias for or against the Herald or NZME and every attempt was made to avoid unconscious bias in the analysis and discussion of data. Further, every effort was made to avoid any data contamination that might have resulted from this employment. Data relating to weekend news selections was excluded from this analysis entirely for that reason.

Second, regarding the research design/methodology, there are limitations in terms of the amount of data collected and the data-collection timeframe. Ideally, in order to add further detail and reliability to the findings, as well as to bolster the generalisability of conclusions made, more data over a longer period of time should have been collected. Up to five constructed weeks over an entire year would have yielded a dataset that would have been less prone to biases arising from the particular context of November/December 2015. Indeed, the limited two-month timeframe of data collection means that the results of this research are somewhat vulnerable to outlying events and circumstances. As noted, during the study period, several major events occurred that had a notable impact on the data. The death of Jonah Lomu, the Paris terror attacks and the San Bernardino shooting in the United States, among other major events which saw continuing coverage, all influenced the news selections of journalists and consumers. Drawing data from a range of dates further apart from one another would mitigate against the effects of ongoing and follow-up coverage on news selections. Nevertheless, despite this limitation, the data collected was still substantial in amount and yielded consistent patterns of news selections that were indicative of no major impact from outlying cases.

Further, there is a limitation in terms of the case study approach. The Herald website is one of several in New Zealand and, as noted, has a particular audience that may not be entirely representative of the New Zealand public. This limits the generalisability of findings. However, given the size and reach of the Herald website, the results can still be seen as fairly representative of the online news preferences of New Zealanders.

These limitations feed into future research opportunities. Future research into online news selections in New Zealand should take a sample of stories from days over a longer period of time and, perhaps, should focus on selections before, during and after an election period. In this way, changes in context and the potential impact such contexts have on news selections could be assessed.

In analysing the collected data, future research could also map patterns of news selections in a more detailed way, perhaps assessing how particular news stories or stories from particular news topics shift around a website homepage. Correlations between time periods and the selection of news topics could also be performed to add another layer of detail to the assessment of news selections over time.

In terms of variables, more could be added and weighed against one another in order to tease out which factors have the largest impact on the news selection decisions of journalists and consumers. This study looked at journalistic homepage rankings and consumer clicks and assessed their impact on one another. Additional variables, such as the potential influence of Facebook and Twitter, could be added to gauge the role social media plays, for example, in driving news production, dissemination, placement and selection decisions. Future research could, in this regard, also probe the apparent shift in power from journalists to consumers and attempt to precisely quantify the impact of the consumer agenda on journalists.

Beyond the use of quantitative data, future research could also employ qualitative methods to probe the news selection decisions of journalists and consumers. To get into the minds each group, interviews or ethnography could be used. Such qualitative methods would perhaps provide rich, personal explanations for news selection decisions and add an additional layer of detail to the analysis of what is a complex interplay of factors and motivations.

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Appendices

Appendix A: Data sources for 'Figure 2 – APN revenue and net profit after taxes 2005-2015' and 'Figure 4: APN advertising revenue 2005-2015'

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Appendix D: Data sources for 'Table 1 – Advertising rates for nzherald.co.nz'

Herald Business: Advertising Rates. (n.d.). *NZME*. Retrieved February 18, 2016, from <http://advertising.nzme.co.nz/news/herald-business/advertising-rates/>

Herald Entertainment: Advertising Rates. (n.d.). *NZME*. Retrieved February 18, 2016, from <http://advertising.nzme.co.nz/entertainment/herald-entertainment/advertising-rates/>

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Travel: Advertising Rates. (n.d.). *NZME*. Retrieved February 18, 2016, from <http://advertising.nzme.co.nz/entertainment/travel/advertising-rates/>

Appendix E: Data sources for ‘Table 2 – NZ Herald audience demographics’

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Appendix F: Data sources for ‘Table 3 – Herald’s average monthly audience numbers’

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