

Emerging Technologies:  
Perspectives of New Zealand Public Relations Practitioners

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## **Abstract**

This study investigates New Zealand public relations practitioner perspectives of emerging technologies as of the year 2020. In order to do this, practitioner perspectives, ethical challenges and uses of emerging technologies were identified. This involved the use of convenience sampling, semi-structured interviews and a conceptual content analysis as methodological processes. The findings from these processes revealed that practitioners are largely supportive of emerging technologies, often adopting and utilising them in their practices. However, it also established that the majority of practitioners feel ethically challenged by the incorporation of these technologies, particularly due to concerns regarding transparency. It is the unknown potentials of these never-before-used technologies that have also justifiably prevented them from using emerging technologies to their full potential. As a result of these findings, recommendations have also been provided indicating how practitioners might be able to mitigate the myriad of potential concerns they have. Ultimately, the findings illustrate that practitioners are fully aware that the world is entering a new technological revolution and that their profession is intertwined with this journey.

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**Attestation of Authorship**

I declare that this submission is my own work and that, to the best of my knowledge, 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.

Signed:

Date: 24 September 2020



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### **Ethics Approval**

This thesis involves research using human participants, as such approval needed to be sought out by the Auckland University of Technologies Ethics Committee (AUTEC). Approval was received on the 19 of August 2019 with the approval number being 19/275.

## Chapter 1: Overview

*“If a young man tells his date how handsome, smart and successful he is – that’s advertising. If the young man tells his date she’s intelligent, looks lovely, and is a great conversationalist, he’s saying the right things to the right person and that’s marketing. If someone else tells the young woman how handsome, smart and successful her date is, that’s PR.”*

– Sylvia. H. Simmons,

Published Educational and Self-Help Author

### 1.1 Researcher Journey

Having gained my Bachelor of Communications in 2018, majoring in public relations and minoring in event management, I was eager to begin my working career in the profession. After a brief yet meaningful year working in that field, I decided to return to the Auckland University of Technology to get my master’s in public relations. During my time at work and university, I noticed rapid advancements in the technological landscape around me. Professionally, I saw organisations purchasing the latest software to stay ahead of the competition and personally, I could see friends doing whatever they could to get the latest device to assure they remained socially relevant. I began to wonder if this was simply the experience of getting older or if this was something new. This led me to questioning the role of emerging technologies in my public relations workplace as well as the perspective and ethics behind this, which ultimately guided me toward my initial stages of research.

I realised that there was a considerable amount of research into public relations’ relationship with social media and with ethics, but little-to-nothing on its relationship with future emerging technologies. This made me curious as to how public relations practitioners thought the profession might develop technologically and ethically in the future. As I scoured through other books and publications, I began to realise that the majority of occupational research focused on current practice, as it should, but this appeared to come at the cost of considering how the practice might be shaped in the future.

During this time researching, I also spoke with a varied number of people on the subject. Some of these discussions were academic, others more colloquial, all in an attempt to gauge whether this was something genuinely of scholarly interest and worth investigating as a thesis. The mentors, colleagues and friends I spoke with all seemed to express interest and value in this research, encouraging me to pursue its research.

Having received this initial support, I began systematically researching the relationship between public relations and emerging technologies. In doing so I was able to find a clear link between the two, in fact this link was so apparent it appeared as if the entire occupation was intertwined with the developments of technology (Beaubien, 2018; Castle, 2018; Cook, 2019; Valin, 2018;

Waddington, 2018). From basic occupational evolution like using e-mail instead of mail, to utilising complex artificial intelligence software to monitor media, the marriage of public relations and technology struck me as a relationship that has been present since the early formations of the occupation (Fuchs et al., 2018).

## **1.2 Establishing Public Relations in New Zealand**

As with any thesis, it is vital to provide an overview of the main concepts within the research project, in this case the concepts of public relations and emerging technologies.

Public relations as a concept has historically been challenging to define because scholars have debated, and continue to debate, the origins and specificities of the practice (Tench & Yeomans, 2014). Some scholars believe the practice originated in Rome, with the propaganda Caesar fed to his communities (Stevenson, 2015). Others believe circus ringmaster P.T Barnum was the first to identify the power and success that came from fostering a particular reputation with target publics (Vinikas, 2020). However, this research is being conducted in Aotearoa New Zealand, and so its origin and definition will be explained relative to the nation's context.

Just two years after World War II, New Zealand signed the Statute of Westminster in 1947 and became politically independent from Great Britain, though it remained a member of the British Commonwealth. This resulted in a shift in the country's economy which, when coupled with a growing workforce exceeding two million people, led to a rising number of service occupations (Trenwith, 2010). In this post-war landscape, the earliest form of public relations was press agency, where organisations would publish articles in magazines and newspapers that they felt might be in the public's interest. Prominent users of these early public relations practices were the New Zealand Army and Royal New Zealand Airforce, having found value in these practices during the war (Peart, 1994; Sterne, 2008; Trenwith, 2010).

Around 1952, a number of these practitioners who had been meeting socially decided to form an association in which their practices could be legitimised. This association was incorporated on 1 June 1954 and came to be known as the Public Relations Institute of New Zealand (PRINZ, 2020). The association was intended to support other practitioners for lobbying purposes, establishing codes of behaviour, and formulating a code of ethics (which is one of the first things the organisation did). At this time, there were very few sources of knowledge for practitioners to guide their activities with only a few handbooks available in the country. This explains an added desire to establish PRINZ because at this point in time, the only professional knowledge practitioners had was what they had learnt from their own experiences and activities. Having PRINZ meant that this information could be shared, and the practitioners of the time could be supported (Trenwith, 2010; Trenwith, 2014).

Since then, the population of New Zealand has more than doubled and the practice of public relations grown far beyond a few friends forming a small association. PRINZ now has over 1,350 members across the nation that belong to a variety of different sectors from corporate to agency. They have established their code of conduct and ethical practice as they initially intended and offered courses, seminars, conferences and a variety of other learning opportunities that members can attend. They have also established a professional definition of the practice which will be how public relations is understood within this thesis, “the deliberate, planned and sustained effort to establish and maintain mutual understanding and excellent communications between an organisation and its publics” (PRINZ, 2020). In addition to this, universities across the country now offer communication studies at a variety of levels, from diplomas to doctorates, in which interested people can receive certification in public relations (Auckland University, 2020; Auckland University of Technology, 2020; Otago University, 2020; Weaver, 2013).

### **1.3 An Outline of Emerging Technologies**

Much like with public relations, defining technology has been an area of ongoing debate for scholars. The term ‘technology’ possesses differing meanings depending on the context in which it is used. For example, Grady (2010) attempted to resolve the debate by encouraging academics to consider technology as a process by which devices are made, shaped and used. However, the broadness of this definition, which makes it ideal for unifying global perspectives on the topic, also makes it vague.

Even though universally defining technology is troublesome, this concept should not be disregarded (Grady, 2010; Schatzberg, 2018). The reality is that technology is intertwined with human existence. It is the invention of the bow and arrow, irrigation structures, construction processes, and all other original ideas that thrust mankind forward from the challenges of early survival. For example, the deceptively simplistic technology that is the wheel has shaped every existing profession in some way or another and is now considered to be one of the most valuable inventions ever. Having been around since 3,000 BC, the wheel has journeyed alongside mankind, evolving its transport operations, entertainment operations and everything in-between, and it is only one of the many that have supported humanity in unprecedented ways (Bulliet, 2016; Gambino, 2009). This example demonstrates that technology is integrated into humanity’s progress and so it is not only important to define this for “its own sake” but also for “our” sake because it is a part of the way humanity defines its own existence (Grady, 2010; Schatzberg, 2018; Wendland, 2019).

This idea of technology being intertwined and part of mankind is further emphasised when placed in a New Zealand context. One of the most famous Māori parables involves the god Tāne who climbed to the heavens to retrieve the three “Baskets of Knowledge” to be presented

to mankind. He faces challenges in doing so but eventually retrieves and gifts the taonga (sacred resource) to the people so that they might live well (Patterson & Hanley, 2014). What is important to note here is that one of these baskets, kete-aronui, contained the practical knowledge essential to Māori people's survival and is colloquially referred to as the basket of technology. The other two baskets, kete-tuauri and kete-tuatea, contained knowledge of spirituality and makutu (evil sorcery). This illustrates that, alongside the grand philosophical ideas of good and evil, Tāne found it equally valuable to gift technology to humanity, showing how inherently important this concept is to New Zealand, and particularly Māori, identity (Patterson & Hanley, 2014).

Taking this into account, this thesis will put forward the following definition of technology: Technology is more than the latest digital device, it is also a process involving communities wherein ideas are developed, evolved and expanded repeatedly until life as it is known has done the same; it is the course of changing reality (Franklin, 1999; Grady, 2010; Wendland, 2019).

However, this thesis centres around emerging technologies, not just technologies themselves and so there needs to be a consideration for how the term “emerging” affects the definition. The word “emerging” is an adjective used to describe something starting to exist, grow, or become known (Soanes & Stevenson, 2003). A weed sprouting from the ground, a blockbuster film making its cinematic debut and a new vaccine being released to the public are all different examples of things that are emerging. Therefore, emerging technologies referred to in this thesis are technologies that are being created, are advancing into new areas, and/or only now being made known to the public (Cook, 2019; Valin, 2018; Watson, 2015).

#### **1.4 Purpose, Scope and Importance of the Study**

This research's purpose is to identify public relations practitioner perspectives of emerging technologies and so the following three research questions were asked: What are practitioners' perspectives of emerging technologies? Are practitioners already utilising emerging technologies in their current practice? Are there any ethical concerns when it comes to implementing emerging technologies? The details on how these questions were formulated can be found in section 2.5 of the Literature Review chapter. The methodology used when answering these questions involved a semi-structured interview process as well as other supporting methods which will be explained in the Methodology chapter of this thesis.

To understand the scope of the study, there needs to be a consideration for its limitations as well as its delimitations. The limitations of this study refer to external circumstances which were unavoidable for the researcher whereas its delimitations are the conscious factors selected by the researcher to simplify and define parts of the study, thereby appropriately managing extensive, multi-faceted ideas (Merriam & Tisdell, 2016). Regarding this research, the limitations of the study identified post-research are provided in section 6.5.2 of the Conclusion and

Recommendations chapter. However, there are also several limitations which could be identified prior to the research investigation. For example, the number of participants that were interviewed totalled ten and, though this aligned with the goal of interviewing eight to twelve people, an increased number would have made the findings more reliable. Also, it is necessary to consider the timing of the study as it is investigating future devices as they are appearing right now in 2020. Researching emerging technologies in conjunction with public relations practice would be more definitive post-phenomenon rather than during. However, the appeal of this study is that it looks at the relationship between these two topics as it is now as well as how this can potentially be navigated, rather than a historical study of the past. Therefore, the study's accuracy is limited by the timing in which it occurs, the year 2020, and the approximate start of the new technological revolution.

There are also two delimitations which need to be clarified. First, the concepts of public relations and emerging technologies bring forth a myriad of different ideas and so, to avoid confusion, the researcher outlined clear definitions of how these concepts will be understood in the first two sections of this chapter. Second, the researcher has elected to only reference emerging technologies that are relevant to the public relations profession, meaning that only those currently known to be capable of influencing practice in some way will be addressed. For example, the social media revolution that has taken place over the past two decades will be referred to as an emerging technology because it has affected, and continues to affect, the practice. Other emerging technologies not directly relevant to the public relations profession, such as advancements in agricultural irrigation systems, will not be addressed. Thirdly and finally, this study covers the topic of ethical challenges relevant to the relationship shared between public relations and emerging technologies. Some of these categories include data mining, transparency, trust and cybersecurity. Therefore, the following topics, which are often mentioned in discussions involving ethics, have been deemed outside the scope of this study and will not be addressed, namely gender, sexuality, age, skillset, race and nationality.

Ultimately, this study is important as it contributes to the limited scholarly material addressing the relationship between public relations and emerging technologies. Practitioners and scholars alike might be able to use this research to understand how practitioners have viewed emerging technologies historically, currently and looking into the future, the ethical challenges associated with this, as well as whether active efforts should be made to alter these perspectives for the betterment of the practice as it enters into the next technological revolution.

### **1.5 Structure of the Thesis**

This thesis consists of six chapters highlighting the journey from research, to investigation, discovery and recommendations. These chapters will be presented in the following order and be

titled as such: Overview, review of technology's impact on public relations, methodology, findings, discussion and conclusions and recommendations.

The introduction is the current chapter, which provides an overview of the thesis' main concepts, purpose and structure. These main concepts are public relations and emerging technologies which are explained and defined within a New Zealand context. This information is provided as a foundation leading towards the thesis' overall purpose of identifying public relations practitioner perspectives of emerging technologies.

The second chapter is the literature review which will look at the historical, current and future perspectives practitioners had/have of emerging technologies. This timeline-style analysis will be broken down into the cornerstone changes that took place during specific time periods that affected the practitioners' perspectives at the time. The purpose behind this analysis is to showcase the different perspectives practitioners had of emerging technologies over time and how this might influence their future perspectives.

The methodology chapter will divulge the data analysis framework employed in this research, including a discussion of the convenience sampling and semi-structured interview method, the chapter's purpose and how the research concerns were mitigated. This will highlight that the investigative methods used during the research were credible, ethical and academically appropriate.

Fourthly, in the data findings chapter, the information collected from the interviews will be depicted using several pie and bar graphs. This makes clear the content received from the interviewees as well as preparing the data for further explanation in the following chapter.

Then fifthly, the discussion chapter will interpret the findings from the previous chapter by explaining the reasons behind them. In doing so, key findings will be addressed regarding public relations practitioners requiring greater adaptability, being supportive of emerging technologies, valuing reputation management and their caution around these future devices.

Finally, a conclusions and recommendations chapter will be provided summarising each of the thesis' chapters, its overall answers to the three main research questions, as well as the strengths, limitations and future recommendations of the research, thereby summarising and finalising the entire research investigation.



## Chapter 2: Review of Technology's Impact on Public Relations

*"Don't worry, technology will find a solution."*

– George W. Bush,  
43<sup>rd</sup> President of the United States of America.

### 2.1 Introduction

Having reviewed academic literature, there is little research investigating the development of technologies and how this impacts the public relations practice. Regardless, this chapter will work to review what does exist through the following four steps: First, a chronological journey of both computing and social media will be provided to explain how these emerging technologies have shaped public relations practice. Second, public relations practitioner uses, perspectives and ethical challenges when considering these two emerging technologies will be discussed. Third, future emerging technologies will be described in conjunction with their potential uses, perspectives and ethical challenges. Fourth, areas absent in the reviewed literature will be identified, and finally, a conclusion will be provided summarising the topics discussed in this chapter.

### 2.2 A Chronological Journey of Emerging Technologies

This section provides a sequential explanation of the history of computing as well as the history of social media. This is done to establish the importance of emerging technologies within society, to establish a foundational understanding of these two technologies, and to clarify that these two are the only ones that will be discussed in relation to this thesis. Naturally, there are a myriad of other emerging technologies that have come into existence over the past few decades, but these have not been addressed as they are not pertinent to the field of public relations.

#### 2.2.1 A brief history of computing.

Technologies emerged as a result of an individual or group attempting to solve whatever practical issue they were facing at the time. One of the first problems humanity faced was the fair exchange of goods and services. Early communities across the globe independently came up with various currency metrics to solve this problem (Galbraith & Galbraith, 2017). With currency as the new technology, early mathematics was brought to the forefront of ancient societal thought, as they needed to determine numbered ways to negotiate in order to assure successful transactions.

This technological discovery resulted in the creation of the abacus, which was the first known tool used for counting. Much like how the simplistic wheel transformed humanity as we know it, so did the abacus. This technological tool, often made of beads and rods, could be used to complete simplistic equations involving addition, subtraction, multiplication and division; the

starting point to what would eventually result in early computers (Maor, 2010; Moon, 1971).

Table 1 provides a timeline of this technological journey, illustrating that the need for advancement is yet to be ceased as mankind's imagination continues to drive their technological desires.

Table 1

*A Timeline History of Mathematics and Computing*

#	Technology:	Date:	Place of Origin:	Function:
Early Computing Tools:				
1)	Abacus	2500BC	Middle East, Europe, China and Russia	The first known counting machine. It was capable of addition, subtraction, multiplication and division. Various versions were invented across the globe from different materials (Maor, 2010; Moon, 1971).
2)	Napier's Bones	1614AD	Scotland	John Napier invented a board with a set of rods which simplified multiplication equations to addition operations and division equations to subtraction operations (Williams, 1983).
3)	Slide Rule	1633AD	England	Reverend William Oughtred invented this technology which consisted of two sets of scales that are joined together. The tool was capable of multiplication, division, exponents, roots, logarithms and trigonometry (Valentinuzzi, 2019).
4)	Pascal's Wheel	1642AD	France	French philosopher, Blaise Pascal invented a predecessor to today's electronic calculator, which consisted of gears and levers and could perform multiplication and division through repeated addition and subtraction (Kistermann, 1998).
5)	Difference Engine	1822AD	England	Charles Babbage, known as the "Father of Today's Computer", invented this machine capable of computing polynomial functions, avoiding the need for multiplication and division (Swade, 2000).
6)	Tabulating Machine	1890AD	United States of America	Herman Hollerith invented this machine to summarise information stored on punch cards, ultimately helping to process large quantities of data such as the information gathered for the 1890 American census (Riggs, 2015).
The Generation of the Computer:				
The First Generation:				
7)	Vacuum Tube	1940 - 1956	England	These first computers were large and limited to simple equations. They are known as 'vacuum tubes' because they were made up of these tubes for circuitry (Gray & Smith, 2004).
The Second Generation:				

8)	Transistors	1956 - 1963	United States of America	This technology involved replacing vacuum tubes with transistors which made them more compact and faster (IEEE Spectrum, 2004).
The Third Generation:				
9)	Integrated Circuits	1964 - 1971	United States of America	Transistors were made smaller and thousands of these were placed on silicon chips to create integrated circuits. This increased the speed, efficiency and mathematic capability of computers (Young, 2007).
The Fourth Generation:				
10)	Microprocessor	1971 - Circa 2013	United States of America (with Japanese and Italian team members)	Thousands of integrated circuits were built onto a single silicon chip enabling computers to become even more powerful. These increasingly complex networks would eventually lead to the development of the internet (Mahmmod, 2013).
The Fifth-generation:				
11)	Artificial Intelligence	Circa 2013 and onwards	Global (with dominating influences in China, America, England, Canada and India).	This next generation of computers is predicted to come close to bridging the gap between computing and natural intelligence. Enabling these technologies to problem solve, employ creativity and learn in a similar fashion to humans (Watson, 2015; Zraket, 1981).

This chronological table demonstrates two important things about emerging technologies: First, it is clear that the world's insatiable need to further its technological capabilities is not going anywhere. In fact, this desire appears to be growing as the rate of technological outputs continue to increase with each passing century. For example, the abacus was the dominant mathematical tool for approximately 4,113 years, whereas the information system advancements occurring during the Generation of Computing all took place within the exact same century: The 1900s. With such dramatic rates of advancement, the wider picture must then be considered: How are these advancing technologies affecting public relations practice?

### 2.2.2 A brief history of social media.

A subsequent product of computing was the creation of social media networks. This emerging technology would ultimately become the most valuable computer application to be utilised by public relations practitioners, many of whom regard this advancement as a catalyst for revolutionising the entire profession (Kin, 2016). To understand social media's journey as an emerging technology to a common-place tool for practitioner use, one needs to consider what took place during the third generation of computing.

In 1969, the first message was sent via the ARPANET, the internet of the time, from a computer at the University of California to a computer at Stanford University. The message was simply the word "LOGIN" and the computer only managed to receive the first two letters of the word before crashing (Hillstrom, 2005; Ryan, 2010). Shortly after, in 1971, Ray Tomlinson expanded

on this advancing network by developing electronic mail, or e-mail as it is now called (Ryan, 2010; Spicer, 2016). From here, internet browsers such as Netscape Navigator were created, and organisations began to realise they could commercialise the internet by selling dial-up access (Martin, 1997; Ryan, 2010). This all meant that everyday individuals in the early 1990s were able to purchase internet access and, by the year 2000, fifty percent had adopted its use. Now, as of the most recent research done in 2019, 90% of Americans utilise the internet in some way or other (Pew Research Centre, 2020). As for New Zealand, it was determined that by 2016 over four million people were internet users, almost the entire 4,661 million population at the time (InternetLiveStats, 2020; Stats NZ, 2020).

An evolution of Tomlinson's e-mail service that would eventually become popularised were social media networks. These networks, such as Instagram, Facebook, Twitter and LinkedIn, are websites or applications that allow users to make, distribute and participate in networking content (Fuchs, 2017). Social media, like the history of computing, has faced continual improvement since its inception which ultimately resulted in its global appeal and success. In lieu of an existing table, Table 2 was created using academic research to depict which social media was most prominent, beginning with the technology's inception through to the current year.

Table 2

*A Timeline History of Social Media's Most Prominent Platforms*

#	Year	Prominent Social Media:
Latter part of the Fourth Generation of Computing		
1)	1997	Six Degrees.
2)	1998	ICQ (Israeli).
3)	1999	Yahoo! Messenger, MSN Messenger, LiveJournal, QQ (Chinese).
4)	2000	DeviantArt, Habbo.
5)	2001	Windows Messenger.
6)	2002	Friendster.
7)	2003	LinkedIn, Hi5, MySpace, Photobucket, Skype.
8)	2004	Facebook, Flickr, Orkut, Tagged.
9)	2005	Youtube, Bebo, Reddit, Renren (Chinese), QZone (Chinese).
10)	2006	Twitter, Spotify, Pinterest, VKontakte (Russian), Pornhub (First X-Rated).
11)	2007	Tumblr, Ravelry, Friendfeed, Justin.tv (First Livestreaming).
12)	2008	FetLife.
13)	2009	Grindr, Sina Weibo (Chinese microblogging).
14)	2010	Instagram, Pinterest, Path, Quora.
15)	2011	Snapchat, Keek, YouNow, Google Plus, Twitch, WeChat (Chinese).
16)	2012	Neighbourly, Tinder.
17)	2013	Vine, Google Hangouts.
18)	2014	Bumble, Musical.ly.
Approximate Beginning of the Fifth-generation of Computing		
19)	2015	Periscope, Beme, Discord, Meerkat.
20)	2016	(Relaunches, Updates, Acquisitions and Deactivations).
21)	2017	Tiktok.
22)	2018	(Relaunches, Updates, Acquisitions and Deactivations).

23)	2019	(Relaunches, Updates, Acquisitions and Deactivations).
24)	2020	(Relaunches, Updates, Acquisitions and Deactivations).

Much like with table 1, social media's chronological journey reveals the same two important facts: First, these emerging technologies are continually being improved and, secondly, the rate of their improvement continues to increase. For example, in the five years from 1997 to 2002 there were only nine prominent social media platforms but in the five years after that, an additional 22 could be added to that list. Ultimately, this table leads to the same question as the previous one: How are these advancing technologies affecting public relations practice? To answer this question, there needs to be consideration of the public relations practitioners' uses, perspectives and ethical challenges.

### **2.3 The Uses, Perspectives and Ethical Challenges of Emerging Technologies**

Both historically and in the current age, computing and social media tools have been used by practitioners, shaped their perspectives and challenged their ethical conduct. Therefore, the following sub-sections will review the literature established in the previous sections more specifically, explaining how computing and social media as emerging technologies have affected the public relations profession. This will be done by breaking down their established chronological journeys into cornerstone changes where they impacted the practice.

#### **2.3.1 Computing: The uses, perspectives and ethical challenges.**

During the four millennia prior to the generation of the modern-day computer, mathematics-related emerging technologies were mostly used by government operations, military divisions, economists, and the occasional "tech-savvy" business owner. These scientific tools were considered to be separate from "talents" or "arts" like persuasion which, at the time, was the nearest thing to public relations practice (Mayor, 2018).

Then, in the 1940s came the first generation of computing. These vacuum tube computers were only capable of simplistic mathematical equations and were only utilised by select groups of mathematicians, computer scientists and engineers. As a result of this, the technology remained separate from the public relations practice of the day (Gray & Smith, 2004).

In 1965, with the introduction of transistors, the second generation of computers came about. This produced the first commercial computer, named the UNIVAC I (Universal Automatic Computer), this model was capable of simple administrative tasks including data collection and transportation. A total of 46 UNIVAC computers were bought and used by companies such as the American Government's Census Bureau, the Prudential Insurance Company and Westinghouse Electric Company. There is limited academic research detailing how these types of computers affected public relations practice but what is known is that they were used to

calculate company payrolls, sales performance and other financial transactions (Johnson, 2006; Osborn, 1954; The History of Computing Project, 2013; Quindara, 2017).

The third generation came about in 1964 with newly introduced integrated circuits which, resulted in the first-ever commercial ‘boom’ for computers. These circuits first came into use around 1961 and were originally built as supercomputers for the American military. Their never-before-seen speed and efficiency resulted in multiple different manufacturing companies racing to produce their own integrated circuit computers, such as the UNIVAC 1824, to financially benefit from the new influx of buyers (Gray & Smith, 2004; Sutton, 1975). Though there is limited academic research detailing how this second generation of computers affected the public relations practice, it is known that these devices were becoming part of the everyday workforce (Gray & Smith, 2004).

Then in 1971, the fourth generation of computing brought about microprocessors, which made this technology more reliable and faster, resulting in this generation’s computing system remaining the prevalent system for nearly forty years, all the way to 2010 (Mahmmod, 2013). Naturally, corporations and government entities migrated to this next generation, but two other important events also occurred – events which would finally propel the public relation profession into the age of computing.

First, everyday members of the public began purchasing computers for in-home use and, secondly, the introduced microprocessor would serve as a steppingstone towards creating the internet (Mahmmod, 2013). This meant that the professional functions associated with computing systems were now becoming personalised and the general public was beginning to ‘gather’ online (Kelleher, 2007). Computers were even marketed as both a practical and pleasurable tool with slogans like, “The home computer that’s ready to work, play and grow with you” (Aspray et al., 1986; Mickey, 1998). This would ultimately produce the first real shift in practitioners’ uses, perspectives and ethical conduct when engaging with computer systems as an emerging technology. This shift would alter the profession forever.

The shift began with practitioners now actively using computer systems. Public relations professionals suddenly found themselves in an increasingly fast-paced market, trying various new forms of communication, media monitoring and evaluation methods, some of which failed or became obsolete, whilst others became so successful, they would eventually be intrinsic to the nature of the practice, such as social media and media monitoring software (Knowles, 2006). The use of computer systems by practitioners only grew in necessity over the years and around 2003 the profession began exploring popular communication platforms like Myspace and LinkedIn as subjectively cheaper and more successful ways of communicating directly to their audience than through increasingly less-popular means like newspapers (Angwin, 2009; Dijck,

2013; Eyrich et al., 2008). This all eventually led to the social media revolution, which is discussed in further detail in the following 2.3.2 section.

However, practitioners' proactive use of computer systems did not necessarily translate into a positive perspective of this emerging technology. In reality, the majority of the public relations practitioners who were present during the early days of microprocessor computer-integration rejected these new methods of communication. They held fast to traditional methods, favouring print-based media and face-to-face communication above all else and displayed a reluctance to try new methods such as e-mailing newsletters (Watson, 2015). However, over the following decades, this perspective began to shift as practitioners gained more experience with different aspects of computer systems. An example of this growing use and perspective shift can be identified in 1998 when "The Bohle Company", an American public relations agency, published their findings from a survey of 334 practitioners that showed that 95% of practitioners utilised e-mail services, 82% had internet access, 77% used voicemail services and 3% used their computers speakerphone (Bhargava, 2010; The Bohle Company, 1998). With this increased use came more diverse perspectives of computer systems. Some practitioners viewed this emerging technology as a positive means to increase productivity, and others less so, while some individuals were simply unsure of how they felt about computer systems. At the time of the survey, The Bohle Company expressed that having the newest device did not necessarily mean they would increase productivity or that they would stand out from competitors. This illustrates that practitioners' relationship with technology has evolved over the decades, resulting in more complex perspectives than just viewing the computer systems as positive or negative (Bhargava, 2010; The Bohle Company, 1998).

As for practitioners' ethical challenges with computer systems, there is little academic literature detailing these concerns in the early days of computer to public relations integration. Therefore, for the purposes of remaining accurate to the practitioners' experience of the time, the ethical challenges discussed in the following section will only apply from 1995, the fourth generation of computing, to current day.

By the 1990s practitioners had developed a myriad of complex perspectives resulting from their experiences with computing systems, including identifying ethical challenges. The two most prevalent challenges revolved around the practicalities of adopting computer technologies and the depersonalisation effect this had on communication (Johnson, 1997).

Adopting computing systems presented ethical challenges to the practitioners of the time for two reasons: Feeling pressured to adopt technologies and facing restraints. First, they felt pressured to adopt the emerging technology in order to stay up to date with the direction of the profession and their younger counterparts (Somerville & Wood, 2007). Second, even when they tried to adopt computing technologies into their practices, they found themselves battling

organisational, client and time restraints (Somerville & Wood, 2007). This placed public relations practitioners in a “will they or won’t they” ethical dilemma where, based on each individual’s perspective, they had to make a call as to whether or not they thought introducing computing technologies was a worthwhile endeavour (Berger & Park, 2003; Johnson, 1997).

As for communication depersonalisation, many practitioners during this time expressed that the introduction of computing technologies decreased the authenticity of their messages. They acknowledged the convenience of e-mailing someone for example, because people were often too busy to return phone calls and did not want to be pulled into lengthy discussions (Duke, 2001). However, they stressed that the impact and importance of their correspondence was often lost when translated into e-mail, appearing less sincere than the face-to-face means they originally used (Berger & Park, 2003; Duke, 2001; Johnson, 1997).

Then, around 2015, the uses, perspectives and ethical challenges of computer systems as emerging technologies began to evolve once more. This came as a result of humanity entering into a new technological age: The fifth-generation of computing, as depicted in Table 1. These futuristic emerging technologies will be discussed in section 2.4, but before this it is important to consider how the uses, perspectives and ethical challenges of social media as an emerging technology have progressed over time.

### **2.3.2 Social Media: The uses, perspectives and ethical challenges.**

Social media was non-existent during the time of early computing tools. Only in 1997, the latter part of the fourth generation, did this emerging technology come into existence with the creation of the first social media, Six Degrees. However, at this point in time, the technology was purely for social purposes and the majority of professional online communication was still done through e-mail networks (Ray, 2020; Six Degrees, 2020). During the next five years other social media networks such as MSN Messenger began appearing, but their potential was still underestimated and their use relatively novel. Blog-based platforms were popular in which people could share their stories but interactions like ‘commenting’, ‘liking’, ‘downvoting’ and so forth were still virtually unheard of (Dijck, 2013; Wright, 2006).

Then, from approximately 2003 to 2015, social media reached its peak in general public downloads, use and support (Dijck, 2013). The profession was suddenly popularised with Myspace being the first trending social media (Angwin, 2009). There was a ‘boom’ in the creation of various social media resulting in dramatic profession growth and competition. With this growth and competition, the technology began expanding to provide other services like music (Spotify), entertainment (YouTube), dating (Tinder), education (Quora), and gaming (Twitch) in the hopes to break into a niche market and give the channel audience appeal (Eyrich et al., 2008; Meikle, 2016). Facebook soon overtook Myspace as the most popular social media



channel with more than one billion active users as of 2020, closely followed by WhatsApp with one billion active users and QQ which has approximately 853 million users (Statista, 2020).

During this twelve-year peak, the use of social media networks also began extending into the professional workplace, rather than just the social sphere. Advertisers, marketers, and other communication sectors began realising the benefits of owning and operating social media channels, especially the more successful ones, where target audiences were active (Cismaru et al., 2018; Huang & Huang, 2016; Kelsey & Lyon, 2017; Wright & Hinson, 2017). This is illustrated by the dramatic fluctuation in the presence of various channels over the twelve-year period. Some rose to fame, others plateaued, were deactivated, or were acquired by different companies and rebranded, as corporations attempted to decipher how to navigate this new, yet highly successful, communication means for profit (Kelsey & Lyon., 2017). At this point in time, this profit was mainly coming from advertising revenue because it was marketers who first identified that they were able to dramatically increase their profit margins by promoting their products or services on these platforms (Dwivedi et al., 2016).

From professional social media such as LinkedIn, to entertainment social media such as Snapchat, the nature of human beings is one that encourages engagement, and these various platforms are a modern way for this to be channelled (Brunner, 2017; Meikle, 2016). The majority of the applications that were coming out, started introducing social media features and so public relations practitioners realised that, like marketers, they had to 'go to where the people are' and adopt social media tactics into their practices (Wright & Hinson, 2017). They began incorporating this technology into both their internal and external campaigns, as well as their evaluation processes (Motion et al., 2016). The algorithmic capability that social media technologies have, means that a technology-literate practitioner can target markets not only based on their demographics but also their psychographics. Therefore, they are able to concentrate their messages at the ideal target publics and, if the messages are crafted effectively, produce results unmatched by previous traditional media channels (Kim, 2016). Ultimately, the emerging technology of social media is not only being used by practitioners but is revolutionising the profession (Eyrich et al., 2008).

This use of social media networks by practitioners naturally resulted in a changed perspective for practitioners. Prior to 2003, these tools did not factor into standard public relations practice, yet their usefulness became indisputable and they are now viewed by practitioners as vital to almost all campaigns (Motion et al., 2016). This perceived importance has grown to such an extent that certain practitioners and scholars even regard this means of communication as having overtaken traditional media as the core method of message dissemination (Sutherland, 2017). Even university students of public relations are now taught social media tactics in their undergraduate courses and copious amounts of literature, from conference articles to books,

have been written on the subject (Huang & Huang, 2016). However, this perspective shift did not come without facing ethical challenges.

Two notable ethical challenges that came with the use of social media involved organisational policies and the roles of transparency and trust. Utilising social media platforms meant that practitioners were advocating their organisation's position online, which led to confusion around managing this new type of channel (Driscoll et al., 2008). The latter included ineffectiveness of existing policies, lack of guidance, and confusion around which person or team is entitled to make decisions (Noor Al-Deen & Hendricks, 2013). Many articles have been written on this subject, as each organisation tried their own method of navigating social media policies. For example, the news organisation CNN facilitated their interpretation of online transparency by having specific internet and social media policies similar to other news organisations such as "the Inc." and "MashableAustralia" (Black, 2010; Dishman, 2010; Lauby, 2009; Pick, 2010).

The use of social media also resulted in ethical challenges regarding trust and transparency. Maintaining these two values were, and still are, vital to the production of an ethical and effective public relations campaign, as publics have always been more inclined to support messages that are authentic (Bowen, 2010; Palenchar, 2005). This is complicated by the role of rumours and fake news on social media platforms, which oftentimes affect a campaign's intentions negatively. For example, in 2019, the "Business Insider Australia" news organisation wrote an article on the most-viewed false news stories on Facebook in that year, with the most popular one carrying the title, "Trump's grandfather was a pimp and tax evader; his father a member of the KKK" (Gilbert, 2019). This article demonstrates how misinformation and the lack of editorial gatekeeping on these networks serves as a threat to the ethical conduct of practitioners when engaging with social media channels (Hung-Baesecke & Bowen, 2017; Jack, 2017; Lovari & Bowen, 2020).

As for the last five years, the general public and scholars have been considering how these platforms affect, and will continue to affect, society in terms of consumerism, profession evolution and public policy (Appel et al., 2020). The remainder of this literature review will focus on the recent changes that have come into existence from around 2013. Looking at the new fifth-generation of computing will help paint a picture as to how computer systems, social media networks, and other emerging technologies are likely to be used by practitioners, shape their future perspectives, and potentially present ethical challenges.

## **2.4 Considering Futurism**

Before looking at the uses of future emerging technologies, practitioners first need to consider what are potential future emerging technologies. To do this, practitioners must engage in a practice known as futurism: The active investigation and anticipation of the future (Dupont,

2018; Rainey et al., 2009). This practice began in Italy in 1909 as an artistic movement but has since made its way into a variety of human behaviours. From professional to private, people naturally want to engage in futurism, such as corporations financially preparing for the future by hiring economists, to everyday individuals engaging in cultural practices like marriage to create personal stability. The reality is that human beings innately possess a desire to predict and ‘guard over’ humanity’s future as well as their own individual legacy (Dupont, 2018; Kovač, 2016).

Tapping into this innate desire, public relations practitioners must actively practice futurism to assure that their occupation evolves successfully and ethically. Practitioners must not repeat history by being unnecessarily hesitant to accept new technologies, but they must also be cautious before accepting new information systems (Castle, 2018). It is within this fine balance that ideal futurism is achieved and public relations practice is made successful and secure (Dupont, 2018; Motion et al., 2016; Watson, 2015; Wright & Hinson, 2017).

## **2.5 Potential Uses of Future Emerging Technologies**

It can be said that a number of scholars, such as Beaubien (2018), Castle (2018), Cook (2019), Valin (2018) and Waddington (2018), have already employed futurism tactics because they have produced literature explaining how future emerging technologies might be used in the public relations profession. This section will review these authors’ work to identify the potential products that form part of the new, fifth-generation of computing, and how these products could be used by practitioners.

Jean Valin wrote his 2018-paper titled, “Humans still needed: An analysis of skills and tools in public relations” with the intention of helping practitioners understand the impact future emerging technologies would have on their profession. He presented his findings at the 70th Chartered Institute of Public Relations (CIPR) Conference in London during May of 2018, with his goal being to start a debate on the topic (Valin, 2018; Waddington, 2018). This is relevant to this literature review not only for the content he presented but for his distinct labelling of future emerging technologies as either “tools” or “skills”. These labels will be explained and utilised in this literature review.

Technological tools are future emerging technologies that help practitioners complete tasks they are already performing but with greater efficiency (Cook, 2019; Valin, 2018; Waddington, 2018). Historically, public relations practitioners have incorporated many tools into the profession for their betterment, such as the use of e-mail services instead of fax machines, or the use of cell phones instead of landlines. Utilising new tools has enabled the profession to improve its efficiency and has helped its evolution (Beaubien, 2018).

This historical relationship with tools has continued to the present with practitioners looking towards the future for new, emerging technology tools to become available. One such tool popular in scholarly discussion is virtual reality, i.e., the ability to interact in an artificial landscape (Fuchs et al., 2011). Imagine practitioners being able to virtually craft a campaign and trial it on a simulated audience of exactly their targeted demographics and psychographics. In doing so, they would be able to tweak and improve their campaign to the point where they know its real-life launch would have a nearly 100% success rate. This demonstrates only the potential capabilities of virtual reality; there are also new forms of social media, augmented reality, media monitoring services such as Isentia and Meltwater, and a myriad of other technologies emerging at a faster rate than ever before (Gacovski, 2019; Isentia, 2020; Meltwater, 2020).

Then there is the second type of emerging technology established by Valin, namely “skills”. These technologies will be artificially intelligent meaning they are able to fill previously unnoticed gaps in the profession and be capable of what practitioners previously thought to be sentient tasks (Cook, 2019; Valin, 2018; Waddington, 2018). In comparison to tools, technological skills have not been utilised historically in public relations practice because they are recent inventions that are only now being developed as a result of the emerging fifth-generation of computing. Therefore, humanity has only just started to experience these skill technologies, such as artificial intelligence, in their early forms (Hennig, 2018; Weber, 2019).

With little-to-none historical experiences with skill technologies, practitioners have to consider what is happening currently with their development in order to prepare appropriately. For example, practitioners must look at the potential uses of the emerging technology, such as chatbots. Chatbots are an interactive artificial intelligence that can engage in conversation via text (Curry & O’Shea, 2012). Currently, they are being used as basic ‘tool’ technologies where clients ask them questions and the chatbot responds via text or audio with a prewritten response, but their potential extends far beyond (Castle, 2018). The components that make up a chatbot, its predicting of client intent, its ability to deal with new intent, integration, language and conversational abilities, are all currently being researched by academics and software engineers alike in order to improve this technology (Følstad et al., 2020). With each passing year, it becomes a more efficient artificial intelligence system and practitioners have not been blind to this progress, employing the use of chatbots into their practices and campaigns.

An example of this occurred in 2018 where UNICEF Brazil launched a chatbot named Fabi who engaged in conversations with teenagers, some as young as thirteen, about the dangers of sharing intimate images online (Petters, 2019). The chatbot not only served to educate young people but also recorded data about their personal experiences. This data revealed that 81% of the teenagers Fabi interacted with had received nude images and 47% had already sent nude images of themselves to others on the internet (UNICEF Brazil, 2018). With results like this, Fabi went viral and showed the public relations profession what awareness campaigns could

look like going into the next generation of computing. There is even advice as to how a practitioner might support the introduction of a chatbot into their organisational or campaign practices by developing a skeleton of what would appeal to the target publics, providing testing of the technology and a soft launch, leveraging data to continue improving the chatbot, and providing a natural conversational flow for the device (Gils, 2019). This example can also be used to illustrate the potential ethical challenges that can arise from utilising emerging technologies. The Fabi chatbot was created with the intention of seeking out and communicating with children and young people about online sexual predation, which raises privacy and data mining issues in terms of whether the children's information remained private and whether it was sold on to other institutions.

## **2.6 Potential Future Perspectives and Ethical Challenges**

Certain scholars, such as Valin (2018) and Miller (2016) possess a positive perspective of these fifth-generation technologies, as they believe that these devices will ultimately support practitioners' abilities to campaign with increased ease and at higher rates of success. This perspective is based in the fact that new artificial intelligences will improve computing and social media technologies, making them more desirable for the everyday person, increasingly pervasive in their lives and subsequently making people more reliant on these devices (Pew Research Centre, 2018).

However, negative perspectives of these emerging technologies have also been highlighted, mainly rooted in public relations' potentially hazardous desire to appeal to clients and appear 'trendy'. It has been suggested that optimism has become intertwined with the public relations professional perspective as a result of the practice wanting to appeal to stakeholders, organisations and target publics (Guzman & Lewis, 2020). The practice was even described as a bunch of 'cheerleaders' who, when learning of the potential applications of these new artificial intelligences, welcome them with little introspection (Bourne, 2019; Guzman & Lewis, 2020; Moore, 2018). Practitioners are encouraged to appropriately evaluate whatever future emerging technologies might come into existence before actually implementing them (Bourne, 2019; Grunig et al., 2002; Holtzhausen, 2014). These future emerging technologies also bring forward several ethical challenges, namely data mining, privacy, transparency, trust, cybersecurity, big brother and free will, which were all mentioned by interviewees during this research endeavour.

Firstly, there has been a growing debate as to the data mining and privacy practices of emerging technologies. These two ethical issues can be illustrated through a discussion of chatbot technologies. Chatbots, as discussed in section 2.5, collect personal information through whatever platform they exist on, which is then analysed by researchers (Curry & Shea, 2012). It has also been shown that chatbots with more anthropomorphic characteristics are more likely to receive intimate and increased amounts of information (Følstad et al., 2020). This raises a

number of questions as to the privacy practices and subsequent data mining practices associated with this technology: Where is the information being stored? Who can access it? What is done with the information post-research? Is it anonymous? These questions are only a few demonstrating the potential lack of transparency chatbots could initiate, leaving practitioners uncertain as to whether or not the utilisation of this future technology would actually be fair to their target publics (Følstad et al., 2020).

This lack of transparency, trust and cyber-security extends to our second ethical challenge; the role of fake news and misinformation. Unfortunately, with the production of sophisticated artificial intelligence comes the production of prolific and seemingly authentic fake news. This threatens the practice of public relations because it could potentially create cynicism and relationship of mistrust between the practitioner and their target publics. To mitigate this potential, the use of collaborative campaigns which have ‘human’ elements have been suggested, such as having a chatbot campaign which is supported by an in-person event. Though, even with these strategies, the fact still stands that the advancement of these new-age technologies could possibly create a fundamental base of publics who mistrust the media ecosystem (Chen et al., 2019).

Third, the concepts of ‘Big Brother’ and free will are further ethical challenges potentially arising from emerging technology use. The Pew Research Centre (2018) reported that societies’ expectations for privacy is continually reducing and that this reduction in expectations could potentially be exploited. Even though sharing information and video content was present in the previous generation of computing, this is believed to be increasing in sophistication at levels never seen before with the new generation (Pew Research Centre, 2018). For example, the introduction of social media originally had the general public concerned about being monitored by either corporate or government ‘Big Brother’ figures but now these applications are simply part of the norm (Forster, 2019; Haig, 2017). In fact, not utilising a social media service is seen as unusual, with individuals appearing to be socially pressured by society to adopt one or more of these platforms, reflecting not only a decrease in privacy concerns of the general public but a decrease in an individual’s free will to select whether or not they actually want to utilise these services (Haig, 2017; Jackson, 2017).

## **2.7 Absent Areas Identified**

It is clear that employing futurism has enabled scholars to predict a few ways in which future emerging technologies might be used, might shape practitioners’ perspectives, and the possible ethical challenges these technologies might create. However, there are many unanswered questions when it comes to identifying these, which become evident when looking at how much literature there is on historical and current perspectives versus future perspectives. The initial part of this literature review was able to provide timelines and detailed descriptions of the role

emerging technologies had in shaping public relations historically, all the way through to the current decade. However, as the world entered the next generation of computing in 2015, the literature on this same topic began presenting some of the following gaps.

As technologies continue to rapidly advance, the need to identify practitioner perspectives grows because understanding how, and to what degree, these advancements are affecting the practice could potentially detail the direction the occupation is going towards. Completing this research means that practitioners and scholars might be able to envision more of what the future of public relations could look like according to everyday practitioners. This knowledge would possibly be useful as practitioners and scholars would be able to respond to these perceptions, preparing for any perceived future effects in whatever way is deemed most appropriate. It would also be a unique piece of research in the fact that it distinctively centres around New Zealand practitioners. In doing so, they will also likely be practicing effective and appropriate futurism tactics.

This notion served as the basis for formulating the following research questions which will guide the remainder of the thesis. The crafting process behind these questions will be further clarified in section 3.4 of the Methodology chapter.

RQ1: What are practitioners' perspectives of emerging technologies?

RQ2: Are practitioners already utilising emerging technologies in their current practice?

RQ3: Are there any ethical concerns when it comes to implementing emerging technologies?

In answering these questions, the literature on this topic will be able to come 'full circle', with knowledge from the past, present and future, providing a complete picture of the topic and possibly guiding the activities of practitioners who are looking towards the future.

## **2.8 Summary**

In closing, this chapter has explained how emerging technologies have affected the practice of public relations throughout history and into the future. This was done by firstly providing a chronological journey of the history of computing and social media. These two emerging technologies were described as they were the most relevant to the public relations profession. The discussion was in relation to the functions of these devices as well as their importance both historically and currently. Secondly, the uses, perspectives and ethical challenges of computing and social media were explained, demonstrating how these emerging technologies have intrinsically shaped the public relations profession into what is today. This was presented chronologically to better illustrate how the technologies have evolved over time and have become intertwined with public relations. Thirdly, the practice of futurism was described before the potential uses, perspectives and ethical challenges of fifth-generation technologies were investigated. This was done to emphasise the importance of employing this practice before

incorporating future technologies into public relations practices, assuring ethical and successful professional evolution. Fourthly and finally, the gaps in existing literature were addressed as well as why this research wants to fill those gaps. These gaps centred around the fact that there is no recent New Zealand-based research on the perspectives public relations people have of future emerging technologies.



## Chapter 3: Methodology

*“PR is premised on truth, trust and transparency.”*

- Richard Edelman,  
CEO of Edelman Communications Firm.

### 3.1 Introduction

When conducting research, it is imperative the methodology behind the process is given proper thought and examination to assure that its findings are reliable (Kumar, 2019). With this in mind, the following chapter will explain the investigative process undertaken during this research to produce academically sound outcomes.

Firstly, qualitative research and the phenomenological approach will be described as the appropriate investigation method for this research. Secondly, the process of convenience sampling will be discussed as well as its advantages and disadvantages in enlisting participants. Thirdly, the semi-structured interview process will be clarified. Fourthly, the eight steps to the conceptual content analysis process will be explained in detail as well as the overall advantages and disadvantages to this analysis process. Fifthly, the steps taken to assure research concerns were mitigated will be shared. Finally, a summary will be provided clarifying the main points covered in this chapter.

### 3.2 Qualitative Methods and Overall Research Plan

In the early phases of research, a variety of different methods were explored to determine if they would be appropriate to use in this investigation. For this particular endeavour, a qualitative research approach was deemed the most suitable because it is a scientific methodology involving exploration into philosophy, experiences, ideas, behaviours and emotions (Corbin et al., 2008), which is what this research aims to do.

Edmund Husserl (1859-1938) is considered to be one of the most prominent philosophers of the 20<sup>th</sup> century due to his founding of the phenomenology approach. Phenomenology is the practice of understanding humanity's reality as it is interpreted by human consciousness (Käufner & Chemero, 2015; Moran, 2005; Zahavi, 2019). This means that a number of people exposed to the same phenomenon will display similar trend responses to that event (Churchill, 2019; Salice & Schmid, 2016). Using a phenomenological approach is the most appropriate method of research for this investigation because it enables the researcher to identify how practitioners are responding to the new 'phenomenon', namely future emerging technologies and the developing fifth-generation of computing.

Employing this approach in practice means interviewing a collection of people who have all shared the same experience, then taking that interview data and analysing it to show an overall trend(s) (Churchill, 2019; Salice et al., 2016). In the case of this research, ten participants were

selected, all of which were public relations practitioners who had been operating in the profession for at least a year. They were also all members of the Public Relations Institute of New Zealand (PRINZ) and possessed relevant qualifications. These particular participant parameters were necessary because they assured that all participants shared similar experiences of the ‘phenomenon’ that is future emerging technologies in their professional practice, thereby making the data findings collected from them more accurate.

### **3.3 Convenience Sampling**

Convenience sampling was used to select participants as a method appropriate to the phenomenological approach. This process involved selecting participants, or research samples, from the most opportune source available to the researcher (Speak et al., 2018). In the case of this research, the primary researcher selected a sample of public relations practitioners based on those who were most accessible to her. The reason this method of data collection was chosen is because gathering information this way is faster than most other sampling methods. It is also ideal when researching into areas that have not had any research done before because it works well to provide an initial academic outlook to determine if there is a case for any further, larger-scale investigations into this area (Emerson, 2015; Huang & Huang, 2014). That way, if no trends or findings of interest are found, the subject can be closed and the matter conclusively settled without the unnecessary financial and time expenditures that would have taken place using other, unnecessarily elaborate, methods of sampling.

However, it is also worth noting that the efficiency of this sampling method does come with one disadvantage; the non-random nature of this method can result in a potential lack of participant diversity (Speak et al., 2018). Nevertheless, this disadvantage can be considered minor because this is an initial study into a new area of research and so assuring diversity would only need to become a necessary factor if any further, follow-up research was being considered. As for this study, it is solely trying to establish whether there are any trends to begin with, not whether these trends appear across a diverse number of public relations sectors/groups/peoples.

The researcher constructed a “Participant Request E-mail” (Appendix A) which was approved before being sent to potential interviewees. Also attached to these e-mails was a “Participant Information Sheet” (Appendix B) which explained the research to potential participants. Approval was sought from Auckland University of Technology’s Ethics Committee (AUTEC) and was received on the 19 August 2019 with the approval number being 19/275.

After receiving affirmation of support, a face-to-face meeting place was arranged. These meeting places were cafes chosen by each participant to minimise disturbance from their daily life, barring one interview which occurred using Skype. Data was then collected from interviewees using semi-structured interviews.

### 3.4 Semi-Structured Interviews

Interviews are structured dialogues where a person asks another a series of questions to which they, in turn, provide the answers (Christenbery, 2017). Interviews conducted in this investigation were semi-structured, meaning that the interview had a measure of flexibility whilst assuring all questions were appropriately asked in order to encourage participants to discuss whatever they felt was relevant. The reason this approach was taken is because it enabled the interview content to be co-directed by all participants, better capturing what the practitioners themselves viewed as important as well as allowing nuances and contextual factors to emerge (Christenbery, 2017; Gorp, 2014).

This method of data collection is a popular choice for qualitative research because there are several advantages that outweigh the disadvantages (Christenbery, 2017). Firstly, the main advantage of this process is that participants are directly answering research questions. Secondly, the dialogical nature of the process provides for a ‘natural’ way for the interviewee to reveal information about their perspectives. Thirdly and finally, there is the opportunity for participants to share their perspectives and contribute to academic literature (Boyce & Neale, 2006; Christenbery, 2017; Stacks, 2002). However, it is necessary to acknowledge that the main disadvantage of conducting these interviews is the time spent in preparing and executing them.

As for this research endeavour specifically, the semi-structured interview process took place in the following way: The researcher crafted nine open-ended questions to be used in the interviews which would enable each participant to provide their perspective of emerging technologies. These questions can be found in Appendix C.

The interview questions were formulated using the favourable traits of interview questions as theorised by William Foddy. In 1994, Foddy determined that interviews were the dominant data collection method used in qualitative research and so he theorised the favourable and unfavourable traits of questions which would affect this process.

Table 3

*Favourable and Unfavourable Traits for Interview Questions (Foddy, 1994)*

#	Favourable Traits:	Unfavourable Traits:
1)	Brevity.	Jargon and abstract terminology.
2)	Sequential question order.	Double negatives.
3)	Encourage participants to “Think Aloud”.	Hypothetical questions.
4)	Define the topic if it is not clear.	Questions containing “...if any...” or “...if at all...”
5)	Select appropriate participants.	Pre-set answers.
6)	Participants should adopt the appropriate perspective when answering questions to assure the same understanding.	

Questions also should be asked in the most appropriate order, starting with the introductory questions, then open-ended questions, before finishing off with conclusive questions (Daymon & Holloway, 2011). For example, interview question one, “What do you consider to be emerging technologies?”, is an appropriate place to start the interviewing process and is open-ended, encouraging interviewees to answer in whatever way they feel is most relevant.

With this in mind, the researcher constructed nine interview questions as well as keeping to the overall investigative narrative, which is finding out the answers to the three main research questions. The following table illustrates the relationship between the interview questions and the research questions:

Table 4

*Relationship between the interview questions and the main research questions*

Main Research Question(s)	Corresponding Interview Questions
<u>RQ1</u> : What are practitioners’ perspectives of emerging technologies?	IQ1: What do you consider to be emerging technologies? IQ3: In your opinion, what are the functions of these emerging technologies? IQ5: From your experience, how have these emerging technologies affected your practice? IQ6: What technologies do you foresee in the next five years? IQ9: Are there any final thoughts you would like to share?
<u>RQ2</u> : Are practitioners already utilising emerging technologies in their current practice?	IQ2: In the last five years, what emerging technologies have you adopted in your practice? IQ5: From your experience, how have these emerging technologies affected your practice? IQ7: Will you adopt these technologies in your personal practice? Why/Why not? IQ9: Are there any final thoughts you would like to share?
<u>RQ3</u> : Are there any ethical concerns when it comes to implementing emerging technologies?	IQ4: Are there any ethical challenges when utilising these emerging technologies? If so, what are these challenges? IQ5: From your experience, how have these emerging technologies affected your practice? IQ8: Has emerging technologies shaped your opinion of the profession’s future? If so how? IQ9: Are there any final thoughts you would like to share?

With this theoretical backing, the interviews were pitched to twelve participants as being a twenty to forty-five-minute-long process. Ultimately, ten interviews took place with the shortest interview being eighteen minutes and the longest interview being fifty-six minutes. This meant the average duration of an interview was slightly over thirty-seven minutes, which can be seen in Table 6 of chapter four.

### 3.5 The Advantages and Disadvantages of a Conceptual Content Analysis

After collecting data via the semi-structured interview process, it was necessary for the information to be analysed. This was done through a content analysis, which can be described as the process of studying communication documents, like transcribed interviews, to identify the presence of certain words, patterns and/or themes (Krippendorff, 2004). Ultimately, it is a technique wherein a researcher systematically observes and identifies the trends that manifest from communication (Berelson, 1952; Schreier, 2012).

There are two different kinds of content analysis: Conceptual and relational. The current research uses the conceptual content analysis method because it involves quantifying the occurrence of selected terms within a text to determine both their explicit and implicit meaning (Population Health Methods, 2020). In doing so, certain trends start to appear, enabling the researcher to answer their intended questions.

Like with semi-structured interviews, there are also several advantages to using this data analysis method. Firstly, this method has little to no cost because no products or services need to be purchased to complete this process; it only involves the researcher's time. Secondly, this method is successful in academically and appropriately analysing the data samples to ultimately answer the research questions. These answers are revealed in the concluding chapter of this thesis, as well as the journey to this discovery being evident throughout the following chapters. Thirdly, steps five and six of the analysis process, which are explained in greater detail in section 3.8 of this chapter, enable the researcher to not only identify practitioner perspectives on research topics, but also which of those perspectives are the most popular. Fourthly, this qualitative analysis method has elements of quantitative research, giving the study a 'well-rounded' appeal. Though the research is based on the qualitative phenomenological approach, the conceptual content analysis involves elements of counting in order to establish the frequency of perspectives held by participants. This is beneficial as it adds greater credibility to the type of analysis due to it incorporating quantitative elements (Berelson, 1952; Schreier, 2012).

However, it is worth noting that there are disadvantages to this method of analysis. The first being that the context in which the interview process takes place is not given consideration, which could potentially decrease the validity of the results. Secondly, this method is time-consuming, especially when the coding process is done manually as it was done in this thesis. Thirdly, the most prominent disadvantage is that this analysis can become increasingly distorted when higher levels of interpretation are sought out (Columbia University, 2019; Krippendorff, 2004; Schreier, Stamann et al., 2019). Though even with these disadvantages, the use of a conceptual content analysis is still the most appropriate and advantageous method when attempting to answer the research questions. Also, this particular research endeavour helped mitigate these some of these disadvantages by interviewing most of the candidates in a similar

setting (a café), and using appropriate academic methodology to measure implicit meaning. With this made clear, the eight-step process will now be explained.

### 3.6 The Initial Steps of a Conceptual Content Analysis

Step one involves the researcher identifying the main research question(s). In this case, three main research questions were devised using Foddy's 1994 model, which was already explained in section 3.5.

Step two involves selecting the samples of text that will be analysed. This research's data samples come from the ten interviews, which were also discussed in section 3.5.

Step three involves formulating the text into category codes. This involves the researcher reading through the data samples and making a note of sentences, phrases and themes that repeatedly appear regarding each answered question. These are then counted and used as 'codes' in the text coding process. For example, after reading all ten interviews, the researcher was able to identify the following sentences, phrases and themes in regard to question one's answers:

- **Sentences:** Virtual reality, artificial intelligence, augmented reality, social media, chatbots, media monitoring software.
- **Phrases:** Brand new, recently incorporated, heard of, trending.
- **Themes:** New/trending technologies.

Since question one asked interviewees what they considered to be emerging technologies, these codes helped to provide a clearer depiction of practitioners' perspectives. Appendix D provides a visual depiction of the step three process, including the various sentences, phrases and themes that were identified for each interview question.

### 3.7 The 'Level of Implication' Process

Following step three, is identifying the 'level of implication' in interviewee statements. This involves establishing whether something mentioned implicitly by an interviewee is actually relevant enough to be included in the counting process. Having a process to identify implied concepts is vital to the research process as it illustrates, in an academically sound method, how the interviewees' statements will be interpreted and affect the data's findings (Kuckartz, 2014).

Before explaining how the process was undertaken in this research, the terms "explicit" and "implicit" need to be clarified. Explicit is defined as an easily understood piece of text, whereas implicit is text with an implied meaning that is not obviously expressed; this is in accordance with the Oxford Dictionary (Soanes & Stevenson, 2003). For example, in an interview, a participant says, "I think Artificial Intelligence is an emerging technology" they are being explicit about their opinion. Whereas, if a participant says, "I think things like sentient software

and problem-solving robotics are emerging technologies” they are implicitly referring to Artificial Intelligence even though they never actually said those words. Explicit and implicit concepts are also sometimes referred to as “manifest” and “latent” concepts, which are terms coined by Freud in his research on the layers of psychological content in dreams (Fosshage, 1983; Freud Museum London, 2018).

Once an implicit comment is identified, the following three stages are completed to identify whether the statement is relevant and should be included in the analysis. Firstly, any synonyms relevant to the selected implicit phrase are identified. Secondly, the role of interviewee tone of voice within the data samples is considered. Thirdly and finally, Additive Pattern Measurement, a tool to measure implicit statements, is practiced. In completing these three stages, it was made clear to the researcher whether to include an implicit statement as a category code. These stages will be further described below:

During an interview, a participant might utilise a synonym for an already existing category code. For example, if a participant answering question one says the word “Facebook” instead of the category code “social media”, they will implicitly be considered to have said the “social media” code because Facebook itself is a social media. However, this will depend on the entire sentence and context in which it was said, which has been taken into consideration by the researcher.

Almost all of the interviews, nine out of the ten, were audio recorded by the researcher, meaning that tone of voice could be taken into consideration when measuring the level of implication in implicit statements. The quality of someone’s voice works to emphasise the words they are speaking and, when discussing sensitive topics like ethical issues, can often reveal more about the speaker’s true opinions than the words they are saying. However, tone of voice as a standalone form of implicit measurement is not an academically sound way of measuring a participant’s perspectives. It is merely a tool that, when used in conjunction with other forms of scientific measurement, can reveal additional nuances (Bryant & Fox, 2005).

Finally, Additive Pattern Measurement was also used to measure implicit statements because this involves considering the level of implication in relation to what has already been identified explicitly (Gawronski et al., 2015). It is the idea that data samples almost always show patterns of implicit concepts being jointly constructed with explicit concepts (Ellis, 2005). The logic is based on the fact that an interviewee would rarely explicitly say something and then implicitly mean the opposite, these two concepts are almost always interlinked. Much like the previous example of synonyms, if an interviewee has explicitly said the word “Facebook” they can be confirmed to have implicitly addressed the category code “social media” because implicit concepts are jointly constructed with explicit concepts according to the theory of Additive Patterns (Ellis, 2005; Gawronski et al., 2015).

The aforementioned three steps show how the level of implication was defined within this thesis and subsequently practiced during the coding process.

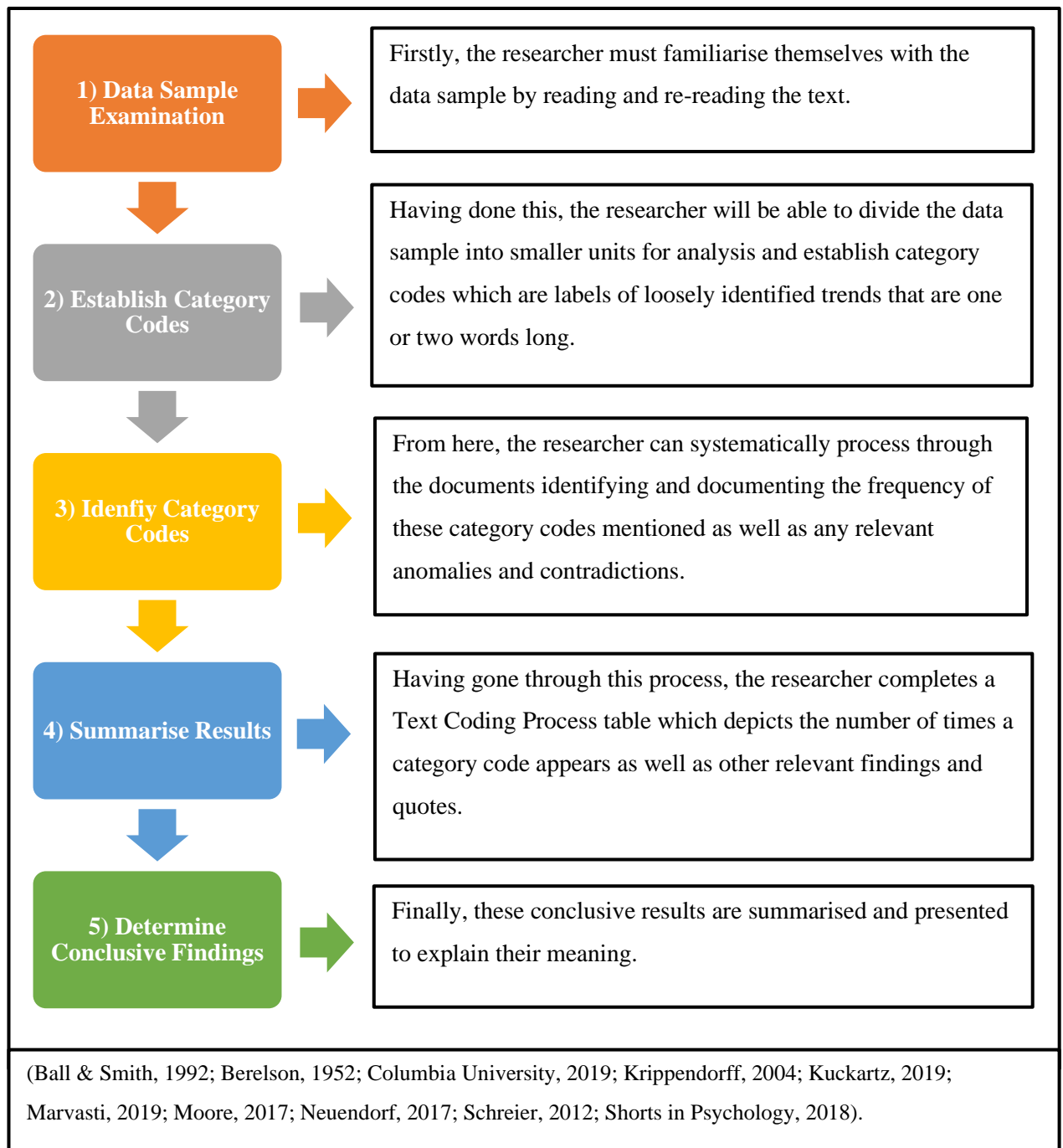
### **3.8 The Remaining Steps of a Conceptual Content Analysis**

After measuring the level of implication, step five of the analysis process is done in which coding rules are established to give credibility to the overall process. This particular research endeavour has four rules which were established to give the coding process authority. These rules include establishing the strictures of the coding process, considering the researches contradictions and anomalies, documenting how many times the level of implication process is used and manually completing the coding process.

The first rule is pre-establishing the parameters of the text coding process prior to analysing the research data. This is because the objective of a conceptual content analysis process is to systematically summarise qualitative data and a large part of that is establishing a clear step-by-step coding process (Corbin & Strauss, 2008). This rule is depicted in the Figure 1, the diagram below:



Figure 1

*The Text Coding Process*

The second coding rule that was established involved considering the research's contradictions and anomalies (Krippendorff, 2004; Kuckartz, 2019). When completing the coding process, the researcher identified trends which contradicted the initially theorised category codes. These contradictions were noted down, collated and then analysed in conjunction with the other findings to ensure none of the investigative findings were excluded and that the analysis process would remain unbiased. This process is illustrated in Figure 11 in Chapter 4 of this thesis.

The third coding process rule involved documenting the number of times the level of implication process was used to identify an implicit category code. This analysis is depicted in Figure 2 in Chapter 4 and the purpose behind it was to illustrate the number of times implicit concepts were included in the analysis versus explicit concepts. This is necessary as it adds academic integrity to the research if the number of explicit mentions outweighs the number of implicit mentions (Ellis, 2005). After all, if research investigations findings are largely based on implicit interviewee mentions, its credibility could be debated.

The fourth and final rule is that the coding process occurred manually. Though this process took some time, it was the most accurate method of coding as it minimised the risk of software incorrectly tallying codes and misidentifying trends (Ball & Smith, 1992; Columbia University, 2019).

With the rules explained, the table below has been provided as a clarifying illustration of how the coding process was done. The researcher had made their way through the interview transcripts and recordings, listing which category codes were mentioned, any contradictions and anomalies, identified example quotes, and whether a category code was implicit or not using the level of implication process. Appendix E contains all ten of these tables, one for each interview, breaking down each into a set of nine questions.

Table 5

*Text Coding Process Explanation and Example*

Question Number:	Category Code(s):	Example Quote:	Level of Implication:	Contradictions and Anomalies:	Category Codes Frequency:
<b>Explanation</b>					
The interview question is numbered here.	Potential category codes are listed here.	Relevant quotes from the interviews are written here.	If the category code is implicit and was identified using this process, it is listed here.	Any contradictions and/or anomalies are listed here.	All the category codes mentioned, explicitly or implicitly, are listed here.
<b>Example</b>					
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"A big 5-year investment in Cyber-security. We now have multifactor authentication."</i> <i>"We've been shifting more and more of our tech onto the cloud."</i> <i>"We could use AI to help with</i>	Not Applicable.	<ul style="list-style-type: none"> <li>- Integrated Networks (the cloud and Microsoft).</li> <li>- Cyber-security.</li> </ul>	<ul style="list-style-type: none"> <li>- Media Monitoring Software.</li> <li>- Artificial Intelligence.</li> </ul>

		<i>our menial tasks and it frees our consultants up to do more interesting work.”</i>			
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Following this is step six of the content analysis process where information from the coding process was described (Ball et al., 1992; Columbia University, 2019). This process can be found in Chapter 4 of this thesis

Step seven is detailed in Chapter 5 of this thesis, and it is where trends from the previous chapter were analysed to determine if they had any meaning behind them (Krippendorff, 2004; Kuckartz, 2019; Marvasti, 2019).

Finally, step eight is where the researcher provided a conclusive brief which contains the answers to the overall research questions, a summary of the overall thesis process and as well as any relevant recommendations (Moore, 2017; Neuendorf, 2017; Schreier, 2012). This is in the final Conclusions and Recommendations chapter of this thesis.

### 3.9 Research Concerns and their Mitigation

The most appropriate way to mitigate research concerns is to assure the research methodology employed is trustworthy. Trustworthiness is acknowledged as a vital part of the qualitative research processes and can be defined as something valid, reliable and responsive in a form of mutually agreeable behaviour (Adali, 2013; Hussain et al., 2007). According to Guba and Lincoln (1991), trustworthiness consists of the trait's credibility, transferability, dependability and confirmability. Credibility is having confidence in research results; transferability is having research results that are applicable to other areas; dependability is having results that could be replicated; finally, confirmability is having removed author bias from impacting results (Christenbery, 2017; Guba & Lincoln, 1991).

With these traits in mind, the researcher considered ways in which the three main research concerns could be mitigated. The first of these concerns involves the interview participants' right to transparency, consent, anonymity and withdrawal. These concerns were addressed by getting ethics approval from the Auckland University of Technologies Ethics Committee (AUTEC). Getting AUTEC approval involves a thorough application process, which details the ways in which these concerns would be mitigated and how the researcher and interviewees would be ethically and legally protected. As confirmation of AUTEC's endorsement of this study, the approval number 19/275 was provided on 19 August 2019.

The second concern involved personal and/or professional intrusions (Armstrong et al., 2013). The process of conducting semi-structured interviews often results in disturbing the professional

and/or personal life of the interviewee. The researcher minimised this intrusion as much as possible by arranging the meetings at a time and place of the participant's choosing. Hence nine out of the ten interviews took place at a café near the interviewee's workplace during their lunch break. A hot drink was also offered as *koha* and an extension of goodwill, which seven of the interviewees accepted.

Thirdly and finally, there were concerns in navigating researcher bias (Galdus, 2017). Researcher bias was minimised by using the phenomenological approach. This approach removes the researcher from the sample entirely because it focuses entirely on the 'phenomenon' experienced by the selected participants (Churchill, 2019). Bias was also mitigated by steps three and four of the conceptual content analysis process. Step three allows for the formulation of category codes, meaning that concepts the researcher might not have initially thought of are given the opportunity to be analysed, minimising bias. Step four, determining the 'level of implication', means providing a system to establish how implicit terms will be measured, minimising misinterpretations based on author bias (Kuckartz, 2014).

These explanations not only illustrate how research concerns were mitigated but also showcases how trustworthiness was woven into the methodological process. For example, the mitigation strategy employed with the first research concern displays the trustworthy trait of credibility because AUTECH's processes assure the research results were credible. Another example is the trait of confirmability, as the third research concern showed mitigation strategies were employed to reduce researcher bias.

### **3.10 Summary**

In conclusion, this chapter has explained the methods which were used to carry out this research endeavour and produce a completed master's thesis. This was done by firstly explaining qualitative research and the phenomenological approach as the most appropriate method for this research journey. Secondly, the function, advantages and disadvantages of the convenience sampling method were detailed. Thirdly, the semi-structured interview process was explained, with reference to the construction of the interview questions. Fourthly, the conceptual content analysis process was broken down into eight steps and each of these steps' intricacies clarified. Finally, research concerns and the steps taken to mitigate these were discussed, particularly in relation to the concept of trustworthiness. With the academic methodology established, the following chapter will discuss the findings that came from implementing these methods.

## Chapter 4: Findings

*“Public relations are a key component of any operation in this day of instant communications and rightly inquisitive citizens.”*

- Alvin Adams,

Founder of Adams and Company Shipping Solutions.

### 4.1 Introduction

This chapter will explain the results that were found after the researcher had appropriately executed the methodologies specified in the previous chapter. This will be done by first shedding light on necessary interviewee information as well as initial interview findings. From there, the findings from each of the nine interview questions will be discussed. This discussion will include depictions in the form of bar graphs that not only demonstrate how participants answered the questions but also which of these answers were trending. Finally, these results will be summarised, which will also include a concluding bar graph. It is also important to note that this descriptive chapter is reflective of step six in the conceptual content analysis process.

### 4.2 Necessary Interviewee Information and Initial Interview Findings

Having completed the convenience sampling and semi-structured interviews, this section will detail information surrounding interviewees as well as some preliminary interview findings. The interviewee information is needed because this provides an understanding as to the quality and credibility of the participants who gave their time for this research. The preliminary findings are also important because these provide foundational insight into the findings collected from the research, before entering more detailed discussions in the following sections. The following table has been provided to depict interviewee information that will have likely influenced the research's findings.

Table 6

#### *Interviewee and Interview Information*

Pseudonym:	Gender:	Approximate Years of Experience:	Public Relations Sector:	Interview Location:	Interview Duration:	Example Quote:
Alex	F	Six	Agency	Public Café	01:05:43	We want to anticipate disruption and go with the flow of these changes.
Amy	F	Two	Agency	Public Café	00:33:16	I think a lot of technology is becoming very automated...it's all becoming a lot more online-based and cloud-based and using your phone as your life essentially.
Laura	F	Two	Agency	Public Café	00:23:27	A lot of it's about sharing; sharing information, sharing data, sharing everything...whether that's work or personal.
Helen	F	Two	Agency	Public Café	00:22:40	I'm excited to see how artificial intelligence is going to help with reading the sentiment of articles because, at the moment, even

						though it tries it cannot. That will make the process so much easier and things like that are really interesting in terms of how artificial intelligence is going to shape the landscape of the profession.
Zara	F	Three	Government	Public Café	00:16:41	I suppose that would be stuff like artificial intelligence, the Internet of Things, chatbots, maybe like VR or a new kind of wearable technology.
Cole	M	Seven	Government	Public Café	00:51:35	You know people might start to worry; “Oh where is this image being saved? Is there a way someone is accessing this?” because I feel like everyone’s data is out there. That anyone using Google and Facebook sell your data onto other companies and they can ascertain a lot from you...
Cathy	F	Twenty	Corporate	Online through Skype	00:48:56	The thing with public relations is to be very good with whatever changes come and using them really well.
Rose	F	Thirty	Government	Workplace Office	00:31:12	I think AI is of great interest to us here.
Sam	F	Five	Agency	Public Café	00:52:34	Okay well the biggest one right now is AI, artificial intelligence is a massive thing.
Sophie	F	Two	Not-for-Profit	Public Café	00:19:48	You have to be strategic on what you’re trying to come across for your target audience.

In line with the trustworthiness traits established in section 3.9 of the previous chapter, it was important to allow participants the opportunity to have confidentiality when engaging in this research. All ten of the participants took this opportunity hence why the names assigned to them are pseudonyms and no information that could potentially reveal their identities has been provided.

Table 6 reveals the following five pieces of information about the interviews that are important to consider before discussing the actual content that came from these interviews. Firstly, nine out of the ten participants interviewed were female. Secondly, the median number of experience years shared by the participants is 7.7. Thirdly, half of the interviewees came from agency-based public relations sectors. Fourthly, eight of the interviews occurred in public cafes. Finally, the longest interview was 01:05:43 minutes, whereas the shortest ran for 00:16:41. What these five understandings demonstrate is that there are pre-existing factors that will affect the discussion matter of the interviews. However, regardless of these factors, the research is based on appropriate academic methodologies and so the findings remain relevant and accurate.

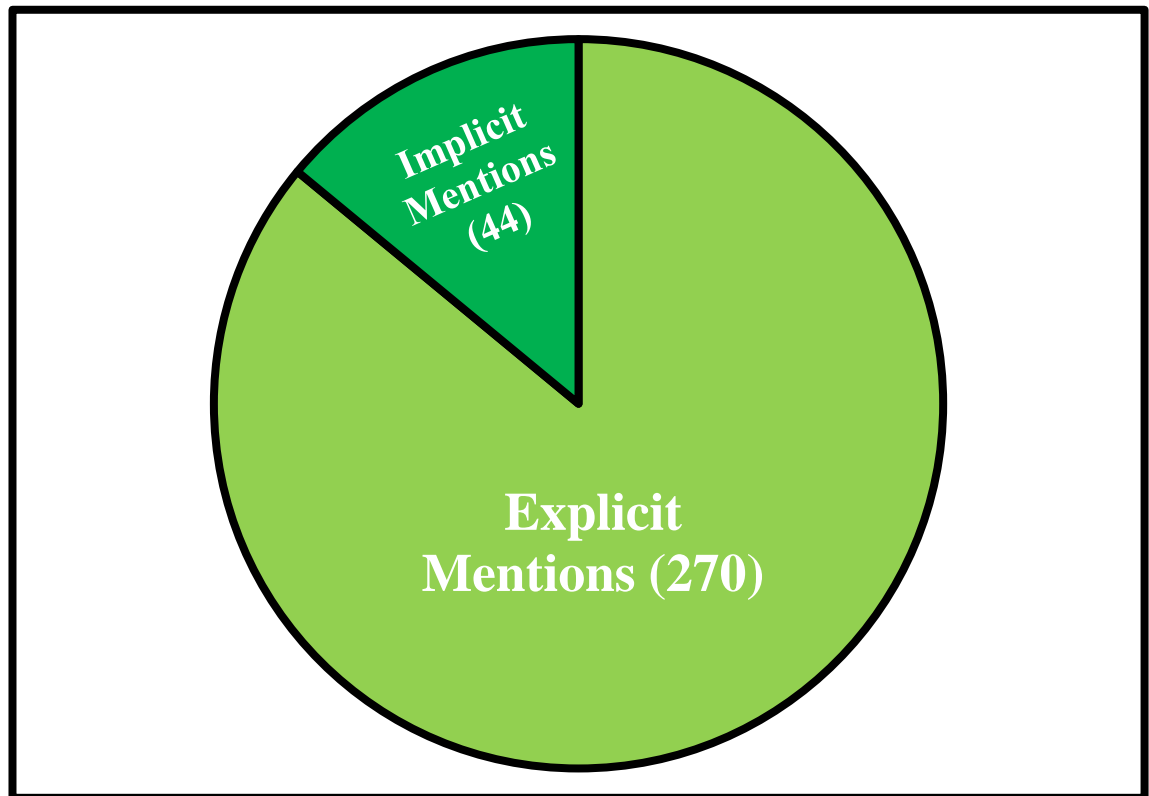
Before discussing the main findings, there are some preliminary findings that also need to be established. These preliminary findings will look at the number of times interviewees mentioned the category codes established by the researcher during the coding process, as well as whether these mentions were explicit or implicit.

After completing the coding process explained in section 3.6, 3.7 and 3.8 of the previous chapter, the researcher was able to identify 314 category code mentions across the ten

interviews. Of these mentions, 270 were explicit and 44 implicit, as is reflected by the pie graph in Figure 2.

Figure 2

*Determining Category Codes through the Level of Implication Process*



This demonstrates three points of discussion. Firstly, the fact that there was 314 category code mentions means that there were approximately 31 code mentions per interview. These 31 mentions indicate that the codes developed during the coding process were appropriate and relevant to the interview subject matter. After all, if the coding process had been incorrect, there would potentially be no category code mentions. Secondly, the 44 implicit code mentions reflect a successful execution of the level of implication process. Finally, the ratio of explicit to implicit mentions appears academically credible, reflecting an appropriate development of category codes (Ellis, 2005; Kuckartz, 2014).

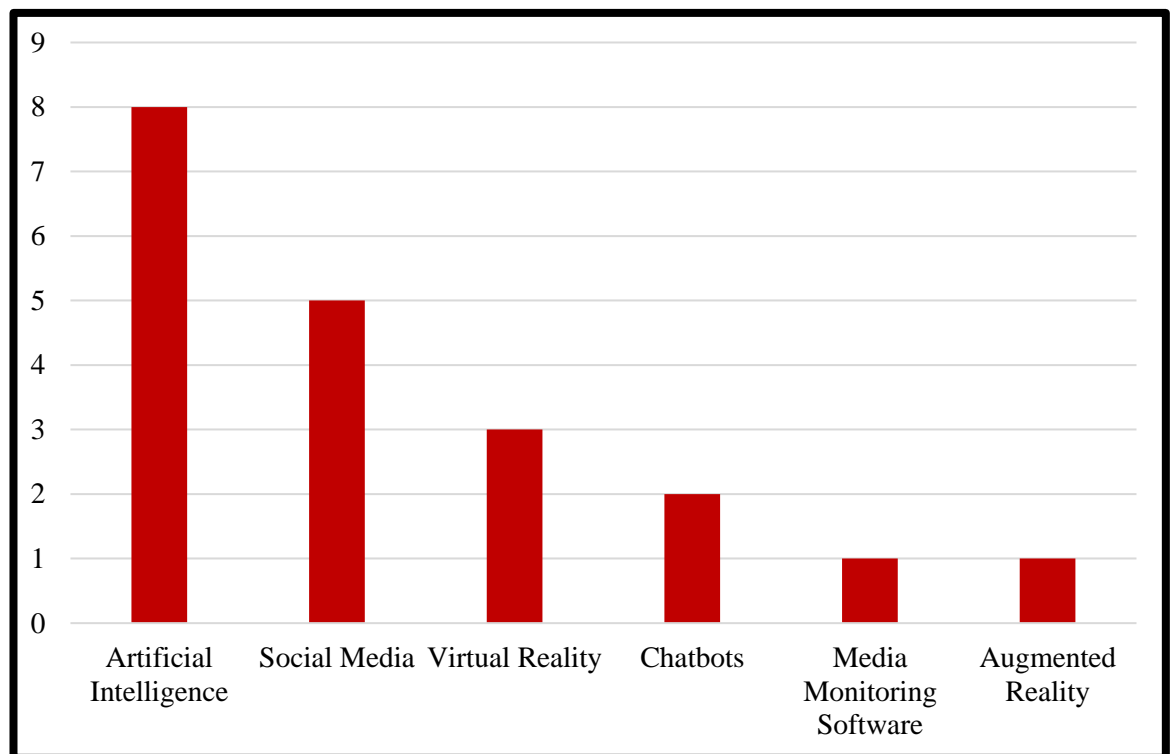
These early findings are being discussed for two main reasons. The first is that they demonstrate the use of the coding process to be successful and credible. A credibility that, based on this, can now be extended to the more extensive findings. These preliminary results also provide a foundational understanding of the interview and coding process before the following sections delve into the main research findings.

### 4.3 Practitioners Specifying Emerging Technologies

Question one asked participants “What do you consider to be emerging technologies?”. When answering this question, participants mentioned a variety of technological “tools” and “skills”, all of which could be compiled under the following six category codes: Artificial Intelligence, Social Media, Virtual Reality, Chatbots, Media Monitoring Software, and Augmented Reality. Collating their responses resulted in the below graph, Figure 3.

Figure 3

*What Interviewees Consider to be Emerging Technologies*



This graph indicates that the practitioners saw artificial intelligence technologies as the most predominant emerging technology with eight out of ten participants mentioning this. From there, half of all participants mentioned social media as an emerging technology followed by a few mentions of virtual reality, chatbots, media monitoring software and augmented reality.

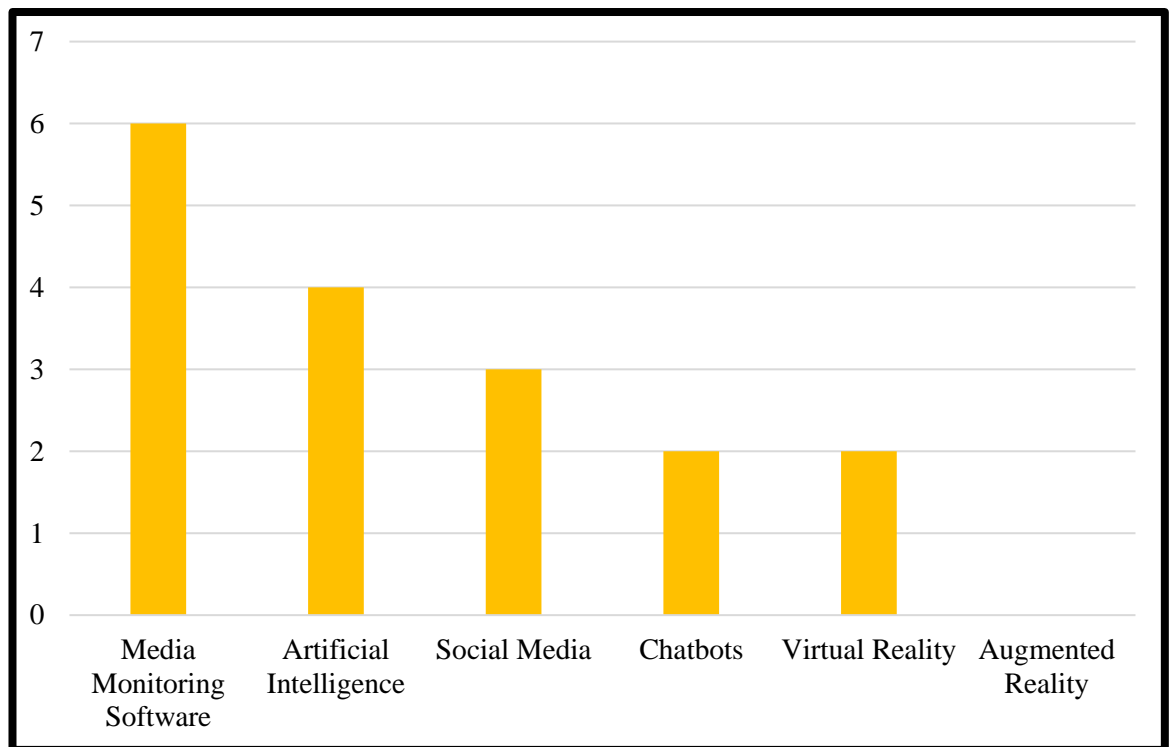
### 4.4 Emerging Technologies Practitioners are Implementing

The second interview questions asked, “In the last five years, what emerging technologies have you adopted into your practice?” The results that came from this question were collated to formulate the below Figure 4.

Figure 4

*Emerging Technologies Adopted in the Last Five Years*





What is interesting here is that even though artificial intelligence was the most popular answer for the previous question, when it actually came to the implementation of emerging technologies, practitioners favoured media monitoring software. For example, interviewee Cathy stated:

So, there's a whole range of different products including some of the tools that Google provides for free...And then there's some metrics that we also aren't measuring and that is backlinks and shares which are the "gold nuggets" for our profession...Data for me is absolute gold, you can get so much information from the likes of Google Analytics and Google Trends...

It is also clear that augmented reality is not at the forefront of practitioners' minds because this was only mentioned once when answering the previous question.

The remaining technologies, artificial intelligence, social media, chatbots and virtual reality, were implemented by less than half of the interview participants. This lack of implementation was also noted by interviewee Cathy as she expressed the following:

I know, I was there four years ago, you get stuck in the day-to-day 'doing' and it's very hard to step out and understand where things have gone, and a lot of people are being left behind.

Interviewee number nine, Sam, provided a similar justification:

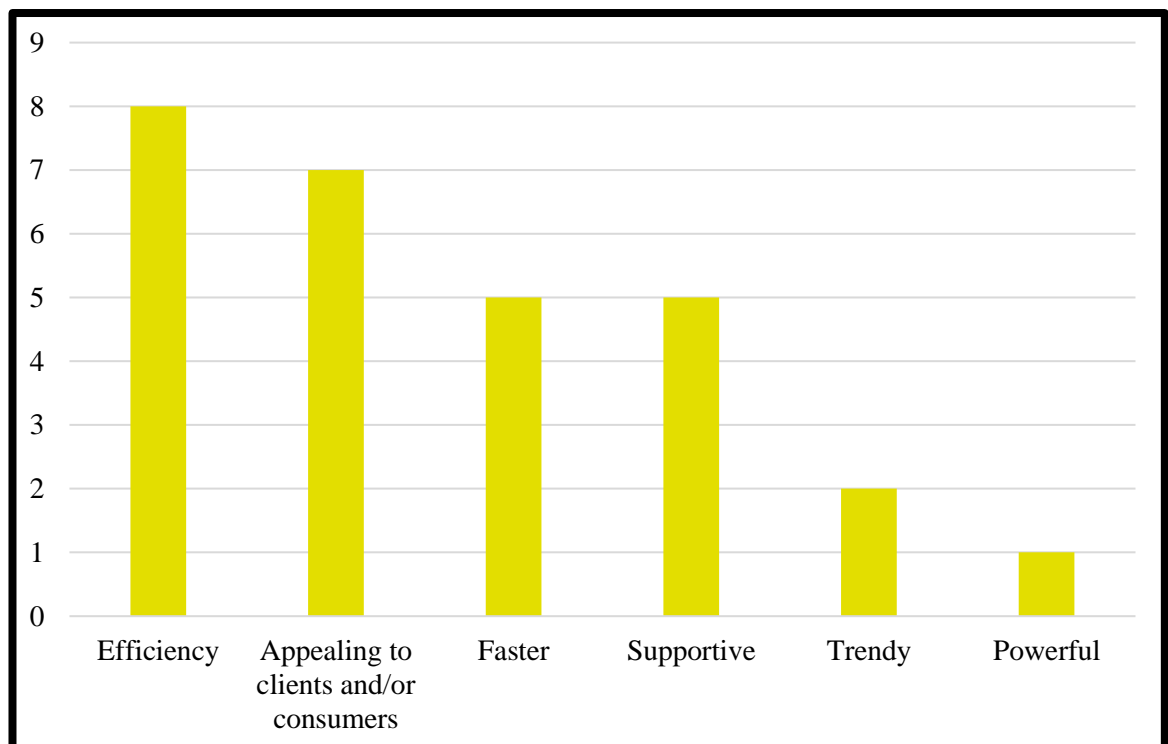
So, while we haven't adopted anything into our practice it is something that we have been aware of and that we help leverage on behalf of our clients.

#### 4.5 Functions of Emerging Technologies

Question three asked, "In your opinion, what are the function of these technologies?" The results from asking this question are demonstrated in Figure 5:

Figure 5

*Functions of Emerging Technologies*



Eight out of ten interviewees responded to this question by saying that efficiency is the most dominant function of emerging technologies. Appealing to clients and consumers was the second most mentioned function, with seven participants noting this. Tied for third place came the functions "faster" and "supportive", both with five interviewee mentions each. This was followed by two mentions of the technology being trendy and one mention of it being powerful.

This bar graph depicts a variety of perspectives as to how public relations practitioners view the functions of emerging technologies. Participants used words like "convenience", "ease" and "staying ahead of the game" to illustrate how they believed the utilisation of these technologies would affect their day-to-day practice. For example, interviewee Amy made the following succinct statement reflecting this:

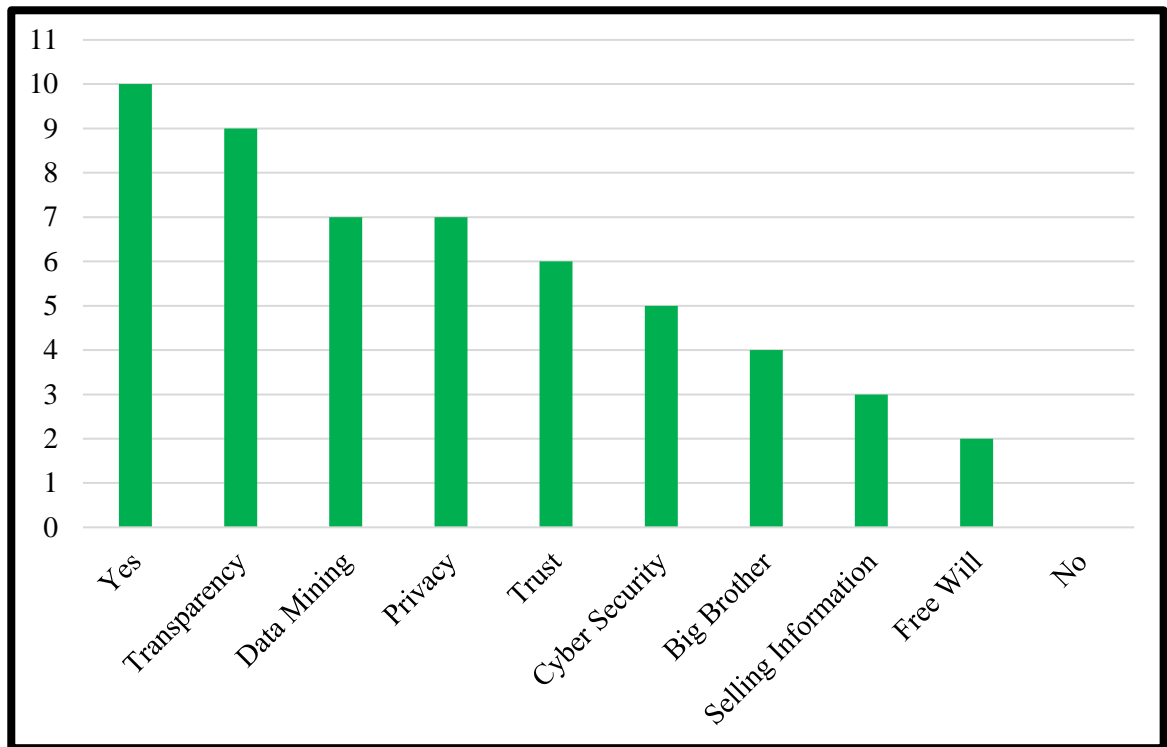
So, I think a lot of it is in terms of convenience and people really tight on time so then they'll use these devices to help them.

#### 4.6 Ethical Challenges of Emerging Technologies

The next question further unpacked practitioner perspectives by asking the interviewees, “Are there any ethical challenges when utilising these emerging technologies? If so, what are these challenges?” This question resulted in discussions on a myriad of topics all represented by the category codes in Figure 6.

Figure 6

*Ethical Challenges when Utilising Emerging Technologies*



All ten agreed that “Yes” there were ethical challenges when utilising emerging technologies. This immediately sparks interest as it is the only answer unanimously expressed by all interviewees. There are also nine interviewee mentions of transparency being an ethical challenge. This is followed by seven mentions of data mining and privacy, six mentions of trust, five mentions of cyber-security, four mentions of big brother, three mentions of selling information and two mentions of free will.

There is a total of nine ethical challenges represented in this graph showing that not only did practitioners feel ethically challenged, but they felt challenged in a number of different ways. It is also important to note that several of these ethical challenges can potentially be connected. For example, when Zara spoke about the ethical challenges involving privacy, the conversation quickly evolved to a discussion about cyber-security and then into a discussion about selling information because these ideas are linked. This is reflected in the interviewee’s comment below:

The main one is probably privacy. You know people might start to worry; “Oh where is this image being saved? Is there a way someone is accessing this?” because I feel like everyone’s data is out there. That Google and Facebook sell your data onto other companies and they can ascertain a lot from you...

The following two quotes further depict the various ethical challenges identified by public relations practitioners.

Interviewee Four: Helen

I guess the ethical dilemma is that we are relying on this software, with all of this confidential information, and what if there’s a data breach or a security breach?

Interviewee Nine: Sam

I mentioned deep fakes already but the gist of it is that there is an ethical way to go about it [campaigning]. So, it’s about transparency. It’s about clever ways and innovative ways of doing things without having to lie to people and without having to misdirect someone’s judgement.

#### 4.7 How Emerging Technologies Affect Practice

Question five asked, “From your experience, how have these emerging technologies affected your practice?” The intention behind this question is to further understand practitioner perspectives and determine whether there are any positive or negative connotations associated with emerging technologies.

Figure 7

*How Emerging Technologies Affected Practitioners*

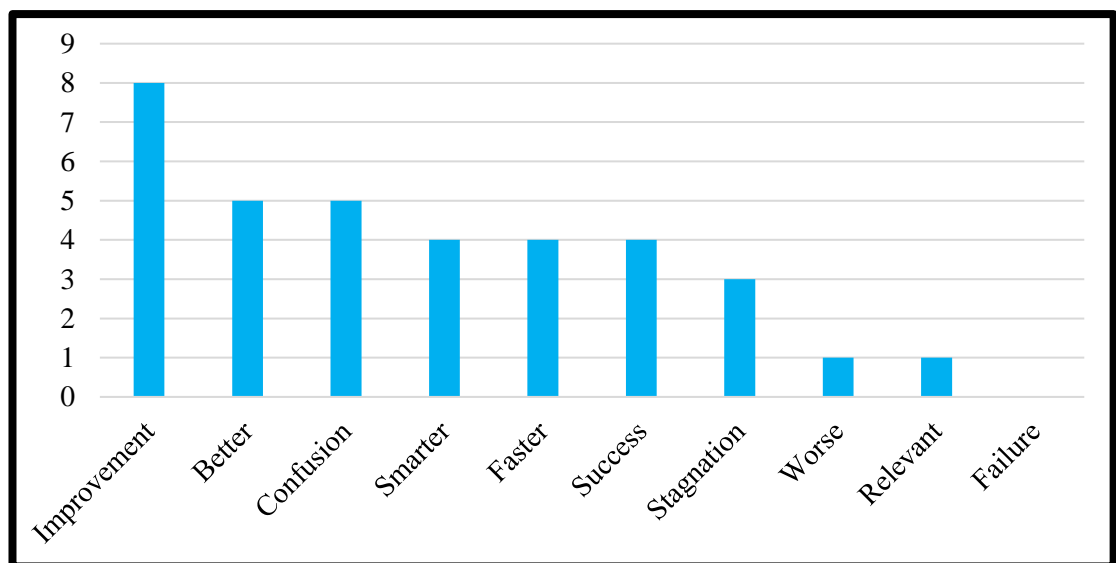


Figure 7 is interesting because the ten category codes represented in the graph have positive, negative and neutral connotations, suggesting that practitioners have been affected by emerging technologies in a variety of different ways. Mostly, practitioners felt that they have improved their practice, with eight participants expressing this. This is further illustrated by the fact that 26 out of the 35 category codes mentioned (when answering this question) are positive words, showing that when practitioners implement emerging technologies into their practice, they often find it a favourable endeavour. Interviewee Alex was one of these participants, believing that technologies work to better the practice:

[Emerging Technologies] Made a huge difference. It's really helped our business immensely...Decreased admin, increased efficiency, given us heaps of data and metrics to improve...It has meant our business is more resilient. It also creates flexibility.

Amy also shared her opinion, remarking that:

I literally wouldn't be able to do my job without them because my company was all based from home.

The negative category code mentions included five participants expressing confusion over the effect of emerging technologies, three mentioning their introduction caused stagnation and one mentioned that they worsened the practice. While discussing one of her previous work initiatives, Zara felt that introducing emerging technologies stagnated the overall workflow:

Like that place that I wanted to develop some sort of artificial intelligence tool or chatbot for; it never eventuated because there was a low-level need for it and the technology hasn't quite evolved to become mainstream enough...

Interviewee nine Sam answered question five, "From your experience, how have these emerging technologies affected your practice?", by saying:

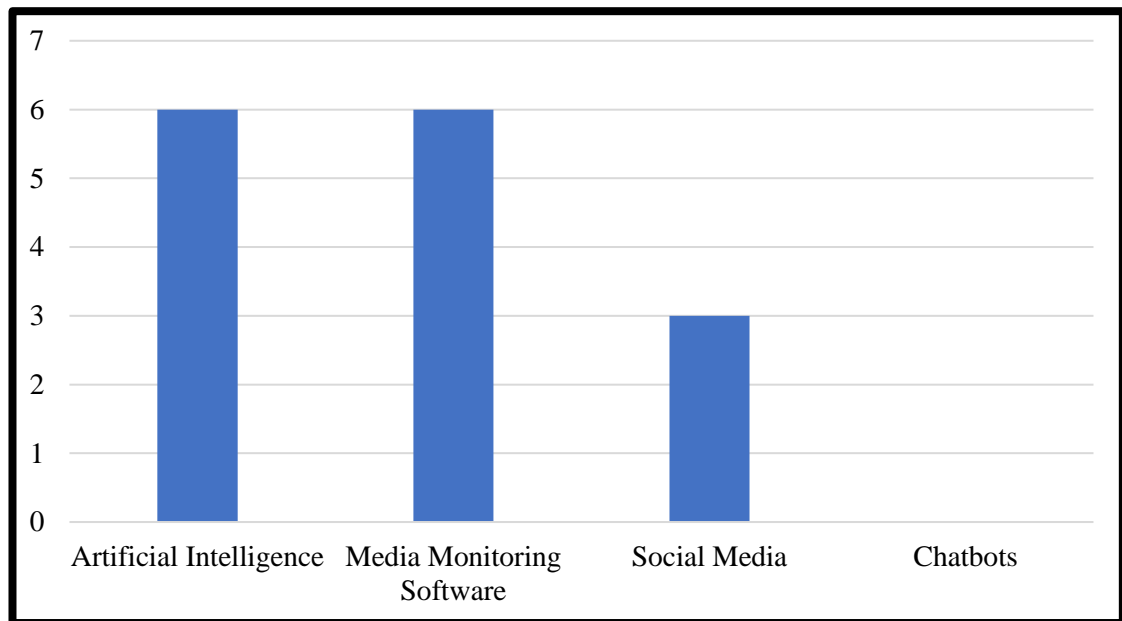
They haven't [affected practice]. ...My agency is relatively traditional in the sense that we don't operate as much in the technology space, even though we do have technology clients.

Ultimately, this graph showcases an assortment of effects that emerging technologies have had on practitioners. Though this has been mostly positive, with improvement, betterment, smarter, functionality, faster, speed and success being the most mentioned category codes, other negative ones have also been noted.

#### **4.8 Practitioners' Foresight on Future Emerging Technologies**

The sixth interview question asks, "What technologies do you foresee in the next five years?" This question evoked futuristic thought by encouraging interviewees to think about the kind of technologies that might shape their future practice as depicted by Figure 8.

Figure 8

*Potential Technologies in the Next Five Years*

This depiction shows that six participants mentioned artificial intelligence and media monitoring as technologies that will emerge into the future. Following this, three participants mentioned social media but there were no mentions of chatbots technologies. However, chatbots do fall under the wider umbrella of artificial intelligence and so it would not be fair to assume that interviewees did not consider this technology as relevant. It is also worth noting that artificial intelligence and media monitoring software was also mentioned by practitioners as technologies they have adopted in their practice in the past five years, as seen in Figure 4 of section 4.4.

When it came to answering this question, many practitioners found themselves unsure of how to respond and oftentimes remained discussing topics they had already mentioned which is why the four codes presented in Figure 8 are similar to those mentioned previously. This lack of surety when attempting to predict the professional landscape of the future can be surmised by Cathy's following comment:

Definitely AI will play a role. But taking a step back I think it's too big a leap for our profession at the moment...They also need to understand how to use data properly and new measurement metrics like domain authority to understand how to measure their success properly.

As well as Laura's comment:

There might be regulation on social media platforms.

And finally, Rose's comment:

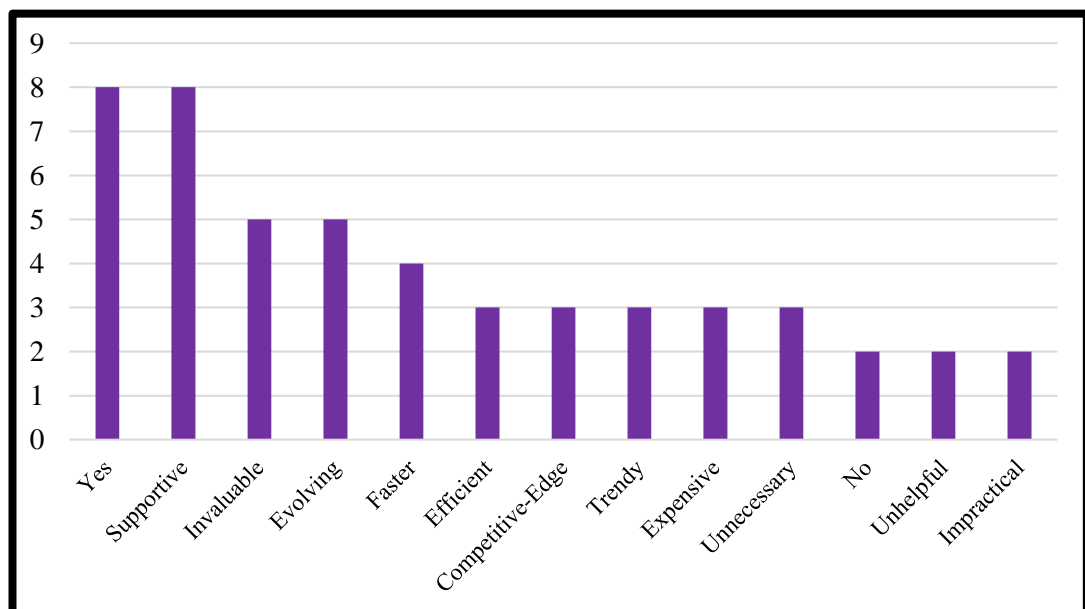
Well, look it depends who you listen to, there's a real school of thought that says we're heading back to print! ... Again, this isn't so much about the technology, it's around how people use channels. I think we're going to see more people blogging, more firewalls, more paid content.

#### 4.9 Adopting Emerging Technologies into Practice

Question seven of the interview process asked interviewees "Will you adopt these technologies in your personal practice? Why/Why not?" This question was helpful in determining whether practitioners had previously considered the role future technologies could play in their profession, as well as how they might ethically and practically feel about their introduction. Figure 9 represents their responses:

Figure 9

##### *Practitioners Adopting Emerging Technologies*



This question appeared to be the most controversial one of the interview processes because it demonstrated that practitioners had various perspectives on the topic. The dominant perspective, held by eight out of ten practitioners, was supportive of employing future technologies into their work practice. They saw these devices as invaluable, evolving the profession, faster, efficient, gaining the competitive-edge and trendy. For example, when asked this question, Sophie stated:

I probably will because you always listen to the data and information to guide you to attracting more audience, because the more audience means the more money.

Cathy also showed a positive response to this question, remarking:

Yes, I've been doing it for a year. The great thing about adopting technologies is that it makes our job a lot less complicated and it actually provides us with more evidence than we've ever had before that our work is really valuable. It is hitting the right audiences and gives us reassurance that we're getting the right messages to the right people.

However, even with the overwhelmingly positive response to this question, there were two practitioners who not only disagreed with this, but vehemently opposed the introduction of certain future emerging technologies into their practice. This is reflected by the "no" category code in the Figure 9 graph, as well as the other codes expressing that the introduction of these technologies were expensive, unnecessary, unhelpful and impractical. Interviewees three and five, Laura and Zara, were the two participants in opposition of utilising future emerging technologies in public relations practice. Laura believed that these technologies could potentially take away from the profession more than they gave.

AI I'm not really a fan of. Like I think chatbots are good for standard questions, maybe like the frequently asked sorts of questions, but when they start replacing humans no... Another aspect of AI is that they're sort of teaching them to understand human emotion and I think that's pretty weird... I think our society has put too much online these days and I really think there is like a lack of personal interaction which is sort of sad.

Zara on the other hand believed that regulations would limit these technologies anyway and so adopting them would not make much difference to her operations.

Where I am at the moment there's not a huge amount of opportunity for it just based on the intense privacy needs and concerns.

Figure 9 also showed that the category codes "expensive" and "unnecessary" were not only mentioned by Laura and Zara but were also mentioned once more by other participants illustrating that other practitioners have considered these concerns as well.

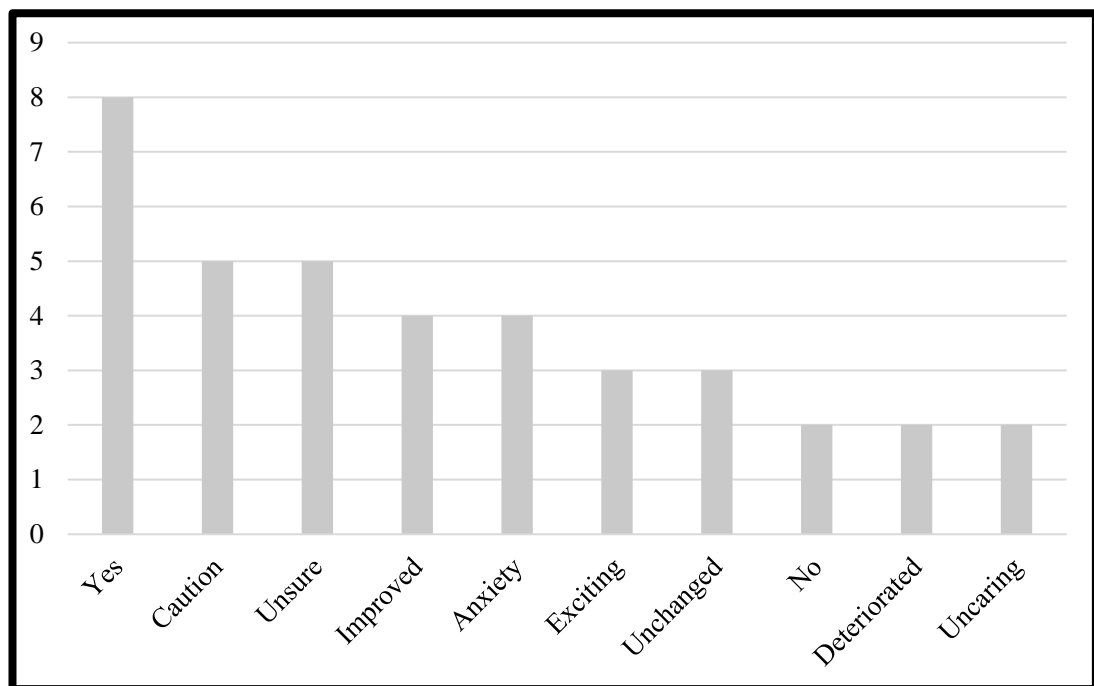
#### **4.10 Perspectives of the Profession's Future**

The eighth interview question asked participants, "Have emerging technologies shaped your opinion of the profession's future? If so how?" The purpose behind this inquiry was to gain a more complete idea of practitioners' perspectives. Figure 10 reflects what they shared:



Figure 10

*How Emerging Technologies have Shaped Practitioners' Opinions of the Future*



In this case, the majority stipulated that “yes” these technologies have shaped their opinion of the profession’s future. Interestingly, though, is that half of the participants also expressed that emerging technologies had made them feel cautionary and unsure about the profession’s future. Cole’s comment reflects this view:

I think it’s really dangerous that anyone can say anything online. I mean I think it’s great because in an ideal world the internet is a human right... Privacy is an interesting one you know; everyone sort of thinks they have the right to privacy and that’s being very quickly eroded away. ... but privacy as well also holds back technology, like if you look in New Zealand we are very, very behind when it comes to digitalising private patient records.

Two interviewees also expressed that technologies had no effect on shaping their opinion of the profession’s future, with Zara stating that:

Where I am at the moment, there’s not a huge amount of opportunity for it just based on the intense privacy needs and concerns.

Figure 10 significant as it is the most diverse one represented in this chapter. For example, four participants felt emerging technologies improved their perspectives of the practice, whereas another four participants expressed anxiety about this. Three participants expressed excitement, whilst another three felt unchanged. Two participants felt this did not affect their perspective of

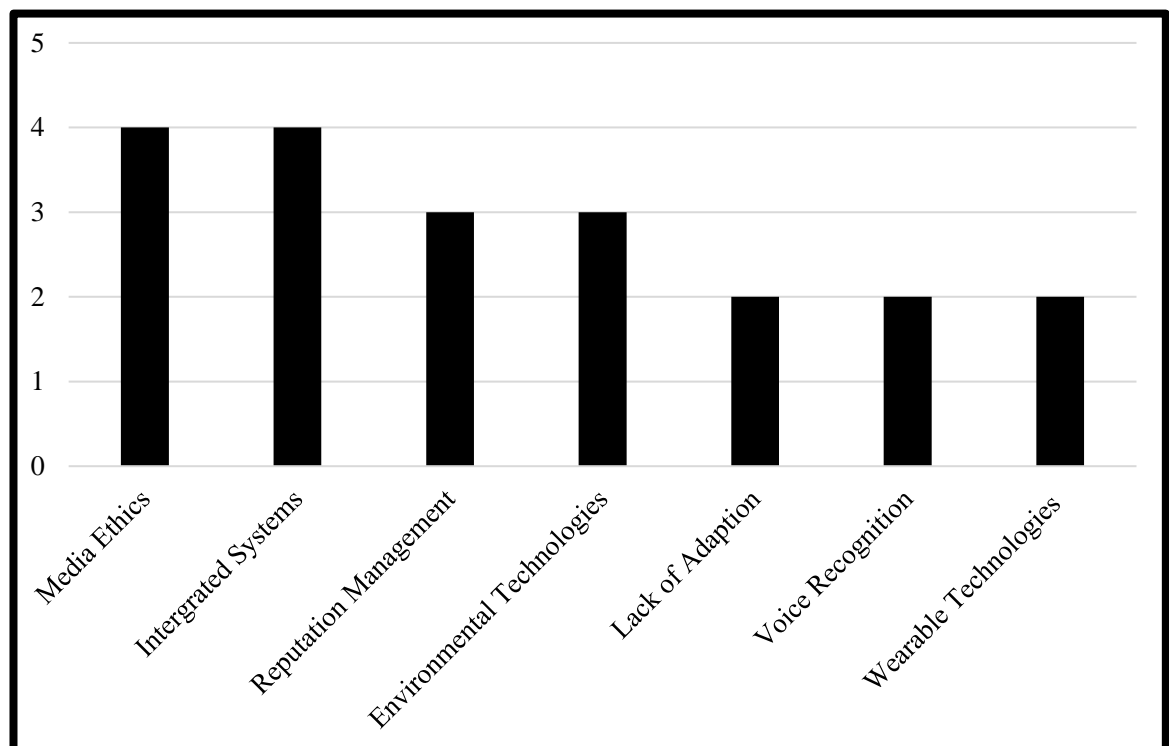
the profession at all, two others felt it deteriorated their practice and the remaining two did not care about what this could mean for the profession.

#### 4.11 Interviewees Final Thoughts

Finally, question nine asked practitioners, “Are there any final thoughts you would like to share?” It is vital to note that the answers from this question have been amalgamated with the findings from the “Contradictions and Anomalies” section of the Text Coding Process, as seen in Appendix E. This appendix recorded all the comments made by interviewees that did not apply to any of the category codes listed for the particular question they were answering. The purpose behind this was to ensure that all concepts addressed by participants were also taken into consideration. The reason this section was combined with the answers to question nine is to provide a single depiction, as represented by Figure 11, of all the concepts interviews had not mentioned previously but were important enough to address. These seven concepts will now be briefly explained with examples to ensure they are understood in the context the interviewees intended them to be.

Figure 11

*Final Practitioner Comments*



Media ethics and integrated systems were the most popular non-category codes, with mentions from four different participants each. When it comes to media ethics, most participants discussed this in terms of emerging technologies potentially having an effect on the freedom of the press. For example, Cole stated:

If you look, there's a direct relation between freedom and freedom of press in a country... So hopefully technology is used for better transparency.

As for integrated systems, this concept was referenced in terms of how emerging technologies might be able to unite different computer systems to increase workplace efficiency as referenced by Zara below:

I want to copy and paste between my devices, link things rather than having it so separate. I feel like there's a lot of opportunity with emerging technologies to make the integration between real life and different devices more seamless and more useful.

Following these two concepts is reputation management and environmental technologies, with three participants mentioning each of these topics. Reputation management was mentioned regarding how future emerging technologies could affect the reputation of a practitioners' organisation as well as the reputation of the overall profession. Participants also discussed environmental technologies in relation to how emerging technologies could potentially help minimise the impact campaigns have on the environment, as expressed by Zara's comment below:

Well, something that does bother me about comms, advertising and PR is, and not to be all millennial, very wasteful. You know, it's the number of things that are produced for one-off events...

Lack of adoption, voice recognition and wearable technologies are the last three concepts which were addressed by two participants each during the interviews. The lack of adoption concept came in reference to public relations practitioners and the profession itself, as shown by Cathy's remark:

I think for me the biggest issue is a lack of adoption from our profession and a recognition that technologies changed the game for everyone. And then, coupled with that, there is a range of issues that have made things harder because things like fake news have made it more difficult and a lot of people are less trusting of our profession.

Sam shared the same notion:

I just think we're slightly behind in the PR profession... We're doing really well here in New Zealand in terms of tech, but when it comes to technology in PR, I think there are some places where we can be a bit more innovative and adopt a few more things.

Voice recognition and wearable technologies were mentioned by participants in relation to how these two, already existing technologies, will become more prevalent and pervasive in public relations practice as well as wider society. Zara commented the following on the subject:

New stuff like Alexa and Siri will get a bit more there; you might get a bit more of the wearable technology.

Interviewee Two, Amy briefly stated the following as well:

I think wearable accessories have really become a big thing.

Having clarified the contradictions, anomalies and question nine answers given by participants, this section has provided a more complete understanding as to the participant's perspectives of future emerging technologies. Subsequently, it has also minimised any researcher or investigation bias by considering concepts that are alternative to those addressed by the category codes in each section.

#### **4.12 Summarised Research Findings**

Having discussed practitioners interview answers, this last section will summarise the most popular answers given for each of the previous questions. When public relations practitioners are asked about future emerging technologies, the majority of them think of artificial intelligence devices. Though, when it comes to actually implementing these technologies, the majority have incorporated media monitoring systems. The main reason for them using emerging technologies is increased efficiency but this has not come without a variety of ethical challenges, which all interviewees agreed were present. Regardless of these concerns, the participants believed that employing these technologies had improved their practices overall and so they foresee the increased utilisation of more sophisticated artificial intelligence systems and media monitoring software in the next five years. They stated that they would adopt these technologies in their own personal practice mainly due to the supportive nature of these devices. Finally, participants stipulated that "yes", these technologies have shaped their opinion of the practice going into the future, which they then followed with discussions about these technologies potentially influencing media ethics and how they desired increased system integration for practicality's sake. The next chapter will now explain how these results can be applied to the three overall research questions, providing final answers to this research journey.

## Chapter 5: Answering the Research Questions – A Discussion

*“People influence people. Nothing influences people more than a recommendation from a trusted friend. A trusted referral influences people more than the best broadcast message.”*

- Mark Zuckerberg,  
Co-Founder and CEO of Facebook.

### 5.1 Introduction

American anthropologist Zora Neale Hurston once described academic research as a “formalised curiosity” which involves “poking and prying with a purpose” (Taylor, 2013). With the previous chapters demonstrating the so-called “poking and prying” of this investigation, this chapter will focus on its “purpose”, the research results. Firstly, a brief section will be provided to elucidate how this study journey answers the overall research questions. Secondly, each of the findings demonstrated in the previous chapter will be discussed with references to scholarly work when relevant. Lastly, the main research questions will be answered using the discussed findings. For clarity, this chapter will utilise the same headings as those presented in the previous chapter to illustrate the links between the two.

### 5.2 Linking Findings to the Main Research Questions

The reality of interviews is that each participant addresses a myriad of topics. Trying to apply all of these to the overall research questions would result in a convoluted document filled with irrelevant writings. Hence why academic methods, like the conceptual content analysis, order data before analysing it. This research is no exception and has carefully constructed its interview questions so that the responses given might actually answer the research questions. This is covered in detail in section 3.4 and the below Figure 12 provides a further illustration of this.

Figure 12

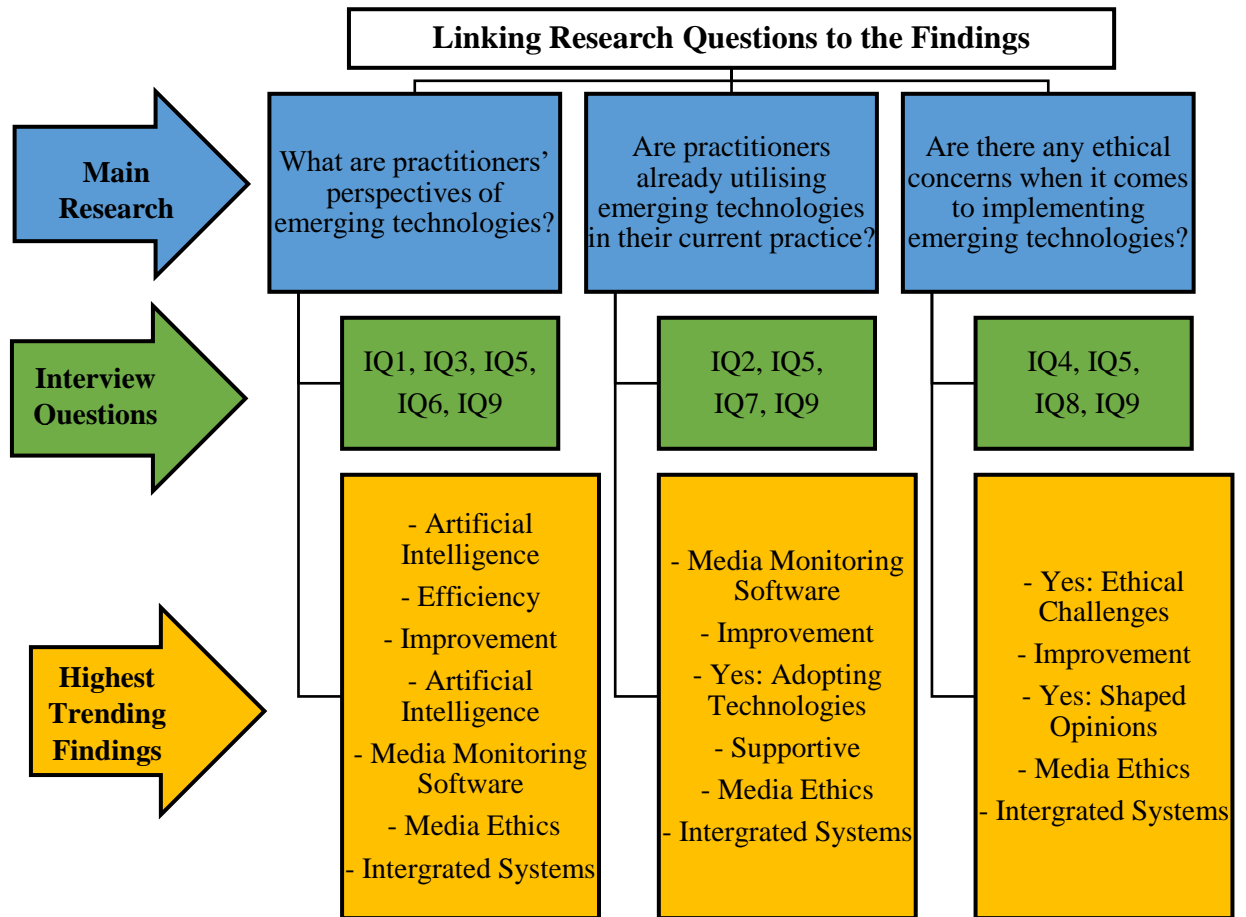
*Linking Research Questions to the Findings*

Figure 12 shows that there is a journey of discovery from the original main research questions through to the highest trending findings. The research has been constructed in such a way that interviewee findings can be linked back directly to their corresponding main research question. For example, to answer the first main research question (blue), the interview questions IQ1, IQ3, IQ5, IQ6 and IQ9 (green) were crafted. The highest trending answers to these questions were Artificial Intelligence, Efficiency, Improvement, Artificial Intelligence, Media Monitoring Software, Media Ethics and Integrated Systems (yellow).

### 5.3 Practitioners Specifying Emerging Technologies

Table 1 and Table 2 in Chapter 2 demonstrate how technology has advanced over the years and that this rate of advancement has been increasing. This is demonstrated by the fact that the first generation of computing began in 1940 and now, less than a hundred years later, humanity has entered the fifth-generation of computing (Gray & Smith, 2004; Watson, 2015). With

technology rapidly evolving, it is no surprise that practitioners' view of what constitutes an emerging technology has changed from what has been noted in the past.

Less than twenty years ago, Duke wrote an article in the *Public Relations Quarterly* about how using e-mail services was essential to public relations practice (Duke, 2001). She was not the only researcher to mention the importance of incorporating the then-emerging technology that was e-mail – Johnson (1997) noted e-mail in her research article a few years earlier as well as Berger and Park who mentioned this in their article in 2003. These examples have been discussed in greater detail in section 2.3.1 of Chapter 2. However, in this research endeavour, practitioners did not even mention e-mail when listing what they considered to be emerging technologies. Instead, they mentioned artificial intelligence, social media, virtual reality, chatbots, media monitoring software and augmented reality. This demonstrates that practitioners have moved on from the emerging technologies of the past and are now considering newer, fifth-generation technologies.

#### **5.4 Emerging Technologies Practitioners are Implementing**

When practitioners were asked which emerging technologies, they had adopted in the last five years they mentioned media monitoring software, artificial intelligence, social media, chatbots and virtual reality. These technologies were the same as those mentioned in the previous question apart from the fact that there were no mentions of augmented reality. This indicates that practitioners are aware of this technology but for some reason have not yet implemented it into their practices.

Augmented reality is a visual system that alters what an individual perceives, and mentions of this technology extend as far back as 1956 when Phillip K Dick wrote about it in his science fiction novella “The Minority Report” (Dick, 1956; Peddie, 2017). This technology has now moved outside the realm of fiction and has become a reality. Practitioners are, however, not implementing this new technology due to the various issues surrounding it. For example, in order to alter someone's perceived environment, a device is needed to record that environment which brings up concerns of protecting the user's privacy as well as whether the technology is vulnerable to data breaches (Marr, 2019; Peddie, 2017).

There are also more practical factors that would limit the implementation of augmented reality, which can be illustrated by an example from the European Space Agency. The agency created an augmented reality device called “Astronaut Manual Work Support”, which served as a training tool for potential astronauts. After the software was tested, the trainees commented that the ‘vision’ created by the software was limited and blurry, when text came up it was hard to read and occasionally too small, and that the user interface was ‘robotic’ rather than seamless and sophisticated (Helin et al., 2018). Based on the European Space Agency's experience, it can

be said that practitioners are potentially not implementing augmented reality because the software is not yet sophisticated enough.

The technologies mentioned by practitioners are also all “skill” technologies rather than “tool” technologies (though some of them might potentially possess “tool” functionalities). This is worth noting because, prior to the fifth-generation of computing, “skill” technologies were still being developed and so the only emerging technologies practitioners could implement were “tools”. Now practitioners are able to use “skill” technologies that not only help them with their tasks but can fill previously unnoticed gaps in the profession (Valin, 2018; Waddington, 2018).

### **5.5 Functions of Emerging Technologies**

When discussing the functions of future emerging technologies, interviewees described them to be efficient, appealing to clients/consumers, faster, supportive, trendy and powerful. It is apparent from these functions that practitioners viewed emerging technologies to be helpful to their practices because these words are inherently positive. Though they did express concerns about emerging technologies, as will be discussed in following section 5.6, when it came to the technologies’ capabilities interviewees had nothing negative to say.

Historically, practitioners have not been this overwhelmingly positive. In the late 1990s, practitioners felt the functionalities of these devices were not all good. As discussed in section 2.3.1, practitioners often felt the practical challenges presented by these technologies outweighed their benefits. For example, when practitioners began incorporating e-mail into their practice because it was convenient and quick, they felt as if their communication was coming across as depersonalised (Johnson, 1997). Now that using e-mail has become the norm in public relations as well as other fields, the fear of depersonalisation is no longer apparent. Instead, the practitioners who were interviewed in this research viewed the function of emerging technologies as overwhelmingly positive.

When comparing this research with findings from Johnson’s (1997) article, the positive functionalities mentioned by practitioners in the current research were similar to those mentioned by practitioners in the past. Now, over 23 years later, efficiency is still the most popular functionality with eight of the ten practitioners mentioning this. This means that little has changed in the perceptions of practitioners as to what function makes the experience of using an emerging technology positive. Thus, the only major difference is that participants now seem to be associating many more positive functionalities to these technologies and no negative functionalities.

Finally, it appears as if practitioners are not as innovative with these emerging technologies as they could be. The “skill” functions of these technologies mean that they are capable of much more than “tool” technologies which only increase efficiency (Valin, 2018; Waddington, 2018).



To illustrate this point, it is necessary to return back to the example of the chatbot Fabi, which was first mentioned in section 2.5, and which helped educate young people on the dangers of sexual predation on the internet as well as collecting important statistical information (UNICEF Brazil, 2018). This UNICEF campaign utilised every function of chatbot technology and, in doing so, produced a highly successful digital campaign that had no support from in-person activations. Whereas the practitioners interviewed in this research only mentioned using chatbots and other emerging technologies in very basic ways; none of them mentioned anything as sophisticated as the UNICEF campaign. This could be due to various reasons, such as New Zealand practitioners being unaware of the capabilities of these technologies, large scale campaigning being too expensive, these technologies not being accessible here and/or practitioners wanting to learn from other countries' before implementing them.

### **5.6 Ethical Challenges of Emerging Technologies**

During the interviews, each participant spoke extensively about the relationship between emerging technologies and ethics. It appeared to be an area of discussion that the practitioners naturally gravitated towards. This is perhaps due to the importance placed on ethical behaviour within public relations.

The fourth question in the interview process asked participants, "Are there any ethical challenges when utilising these emerging technologies? If so, what are these challenges?" All interviewees said "Yes" in response to this question, listing transparency, data mining, privacy, trust, cyber-security, big brother, selling information and free will as the ethical challenges they were facing. This question was also the only one that resulted in a unanimous response from interviewees and should be considered as the most meaningful finding from this research endeavour.

To appropriately discuss the findings from this interview question, the role of ethical conduct in public relations will be briefly contextualised. Ethical conduct is a large part of what makes public relations practice successful (Fawkes, 2015). Without this, public relations initiatives can not only fail but potentially cause more damage than success (Fawkes, 2015; Martin & Wright, 2016). The majority of practitioners in New Zealand are aware of the importance of ethics in their work having been educated on the subject at tertiary institutions, within the workplace and by the Public Relations Institute of New Zealand (PRINZ) (Neill & Oliver, 2017; PRINZ, 2020). Equipped with this knowledge, it makes sense that practitioners are careful when introducing future emerging technologies into their practice as they are unsure of the potential ethical challenges these could present. However, practitioners also want to support these technologies in order to remain societally and functionally relevant (Breakenridge, 2019). This produces a complex, multi-layered relationship between the profession and future emerging technologies.

Historically, from approximately the late 1990s to the early 2000s, practitioners had concerns about the ethical challenges emerging technologies presented. However, these concerns differed from the ones mentioned in more recent literature and in the findings from this research. Originally, practitioners felt pressured to adopt these technologies in order to remain relevant regardless of whether the technology was actually beneficial (Sommerville & Wood, 2007). They also felt the need to incorporate emerging technologies to stay abreast of competitors (Berger & Park, 2003; Duke, 2001). Finally, they believed that these emerging technologies resulted in the depersonalisation of their campaign messages and an overall decrease in authenticity (Berger & Park, 2003; Johnson, 1997). These concerns are discussed in greater detail in section 5.5 and 2.3.1.

These historical perspectives are dramatically different from more recent academic writings released between the late 2000s to approximately 2013. During this time, practitioners had moved on from the general ethical challenges of the past and were beginning to focus on the role of transparency and trust in their practice. Concerns surrounding the ineffectiveness of existing policies, lack of guidance, confusion around decision making and the interpretation of internet policies were just a few of the ethical challenges facing the practitioners of that time (Noor Al-Deen & Hendricks, 2013). These concerns, particularly those in respect to transparency, relate more closely to the ethical challenges found in this research endeavour than those prior to 2005. It appears then, as if the practitioners of 2020 are facing similar challenges to those a decade or so before, the only difference being that there seem to be many more challenges now and that they are increasing in complexity.

Findings from this research showed that there were nine out of ten mentions of transparency being an ethical concern for practitioners. This appears to be a consistent ethical concern for the past ten to fifteen years and has to do with the degree to which a professional's practice is straightforward and honest (Tsetsura & Kruckeberg, 2017). It extends further than just being clear with target publics; in this age of new emerging technologies, it is about the most effective and ethical means of disclosing information (Heath, 2013). It is considered to be a vital part of ethical conduct in New Zealand public relations as is illustrated by PRINZ Code of Ethics stipulating that a member shall, "Promote open communication in the public interest wherever possible" and "Be honest and accurate in all communications..." (PRINZ, 2020).

During the interviews, practitioners explained that a large part of their hesitation in including these new technologies came as a result of lacking understanding as to their full potential. Will these devices be transparent? Will they partake in undisclosed data mining? Will they violate users' privacy? These questions showed that practitioners are proactively wanting to know more about the capabilities of whatever future emerging technology they might use before its implementation rather than afterwards.

Interviewee Sam discussed this in relation to the emerging technology deepfakes, which are a sophisticated artificial intelligence software in which someone's likeness is placed upon an existing image or video (Greengard, 2020). This technology is incredibly deceptive and has caused several controversies for its use in fake news and even financial fraud. For example, in 2019 a company called "Canny AI" released a deepfake video in which the CEO of Facebook, Mark Zuckerberg, appeared to be giving a speech stating that his social media platform's true objective is to manipulate and exploit its users (Toews, 2020). The Israeli advertising company created the video as part of an art installation and so its intention was innocent, though this is not the case with all of deepfakes (O'Sullivan & Metz, 2019). A more sinister example includes placing a celebrity's likeness, without their permission, on top of pornographic content which gives the convincing impression that the superstar has taken part in such activities (Scott, 2020). This has happened to a multitude of famous people including Natalie Dormer, Gal Gadot, Emma Watson, Natalie Portman and even politicians such as Michelle Obama, Ivanka Trump and Kate Middleton (Lee, 2018). This example demonstrates that the impressive capabilities of future emerging technologies make them morally ambiguous and so it explains why practitioners have concerns about using these devices. Ultimately, interviewees indicated that although they support the incorporation of emerging technologies into their practice, they also are aware that these devices can potentially present ethical challenges and do not want to hastily incorporate them.

This caution in adopting new technologies is a common occurrence when practicing futurism, as first addressed in section 2.4. Being cautious when moving into new professional areas is a natural response but if this caution evolves into prolonged hesitation, an organisation can miss out on innovative opportunities; this is a fine balance practitioners need to navigate.

Historically, practitioners were needlessly hesitant in incorporating emerging technologies (Castle, 2018). For example, social media platforms have been active from 1997 but only started being used by practitioners from approximately 2004 onwards (Dijck, 2013; Wright, 2006). This meant that for roughly seven years, practitioners were not operating, at least not in any sophisticated means, on these platforms. Such hesitation is not wise for professional growth, though neither are practitioners who are not cautious at all. Ultimately, the findings from this research indicate that New Zealand practitioners are still cautious when utilising emerging technologies to their full potential and so the practice of futurism should be encouraged. Navigating this fine balance between caution and adoption has never been more important and necessary.

## **5.7 How Emerging Technologies Affect Practice**

Question five attempted to reveal how practitioners perceived emerging technologies to have affected their practice. Based on the interviewee responses, the category codes of improvement, better, confusion, smarter, faster, success, stagnation, worse and relevant, were developed.

These findings encouraged more diverse interview discussion because even though the responses were still predominantly positive, they were slightly more mixed than what was given in the previous questions.

Past scholarly work indicated that the incorporation of emerging technologies into practice would positively affect practitioners. This is illustrated by Jean Valin's (2018) discussion of "tool" and "skill" technologies. Although these technologies are different, both types are intended to help practitioners by increasing efficiency or bettering the practice (Cook, 2019; Valin, 2018; Waddington, 2018). This makes the positive responses to this question understandable because ultimately, emerging technologies are incorporated into practice with the intention of enhancing it in some way. These positive effects also align with what has been experienced by practitioners in the past. For example, when practitioners made their way through the original challenges they faced and actually began utilising social media platforms, they realised that this emerging technology improved their practice by disseminating communication messages in a faster and more relevant way (Motion et al., 2016; Sutherland, 2017). Therefore, the category codes affirming the introduction of emerging technologies demonstrate that the practitioners of today are being affected by emerging technologies in the same positive way practitioners of the past were affected with the only difference being that this positive effect seems to be more extensive than in the past.

Before discussing the negative effects of emerging technologies mentioned by the interviewees, it needs to be noted that there were only a few mentions of these. Nevertheless, five practitioners expressed that emerging technologies made their practice more confusing, three said the introduction of these technologies caused stagnation and one expressed that these devices worsened their practice. These negative effects are similar to what has been established in past literature, where practitioners mentioned that the introduction of emerging technologies did not necessarily increase their productivity or give them a competitive edge (Somerville & Wood, 2007; The Bohle Company, 1998). Most remarkably, the confusion created by emerging technologies was repeatedly identified in past literature. For example, when computing systems and social media platforms were introduced (as detailed in section 2.3.1 and 2.3.3), practitioners felt these technologies made their day-to-day practice overly complex (Bhargava, 2010; Driscoll et al., 2008; Noor Al-Deen & Hendricks, 2013). The repeated presence of confusion can be attributed to two possibilities: Practitioners were not being appropriately consulted and trained in using these technologies or that the emerging technologies that were being introduced were, by nature, complicated. Though the latter is a possibility, it is unlikely that over the past three decades practitioners have repeatedly been incorporating overly complex emerging technologies. Instead, the initial reason is the more likely of the two, suggesting that practitioners need to be better supported when introduced to emerging technologies. This

encouragement for continual upskilling will be addressed once more in the recommendations provided in this thesis, section 6.6 of the next chapter.

### **5.8 Practitioners' Foresight on Future Emerging Technologies**

Findings from the sixth interview question showed that practitioners foresee artificial intelligence, media monitoring software and social media as emerging technologies that will come about in the next five years. These answers align with past research that indicates that the fifth-generation of computing will bring about new artificial intelligence technologies, some of which could be more sophisticated media monitoring software or social media platforms (Knowles, 2006; Watson, 2018; Zraket, 1981). For example, the social media platforms of the future are likely to be optimised by artificial intelligence software resulting in more streamlined interactions and in the collection of more accurate data (McDonald, 2018). This data will have greater monetary value than the less accurate data currently collected on social media platforms and consumers themselves are more likely to be aware of this, seeking ways to benefit financially from the selling or trading of their information (McDonald, 2018). This social media example is just one of the many ways future emerging technologies could shape our future and it appears that practitioners are somewhat aware that change is coming.

This is noteworthy because it indicates that modern practitioners possess a degree of foresight regarding how future emerging technologies might shape the practice; a foresight that aligns with established academic literature. It also indicates that practitioners need to start preparing for this potential future and the increasingly sophisticated devices that will come with it. This can be done through further education regarding existing technologies, as well as engaging in futurism as part of lifelong learning.

### **5.9 Adopting Emerging Technologies into Practice**

Question seven asked interviewees whether they would adopt the emerging technologies they had mentioned in their practice. This question resulted in eight participants who were in favour of the adoption of emerging technologies, describing them as supportive, invaluable, evolving, faster, efficient, competitive-edge and trendy. The remaining two participants said they would not adopt emerging technologies, believing they were expensive, unnecessary, unhelpful and impractical. Though each practitioner's experience with emerging technologies is unique, the dominant perspective is one in favour of adopting emerging technologies. This parallels the findings identified in the earlier section 5.5, which suggests that practitioners believe emerging technologies to support their practice.

In section 5.5, the functions of emerging technologies were discussed, revealing that practitioners found emerging technologies to be supportive of their practice. It described how in the early 1990s practitioners did not have such overwhelming support for emerging

technologies and that this positive perspective only came about later in the decade (Johnson, 1997). Efficiency was also described as the most popular functionality. When answering this question, practitioners provided similar answers and justifications, further illustrating that the hesitant and negative perspectives held in the early 1990s had shifted to positive ones. Interviewees emphasised efficiency in particular, reaffirming that this was one of the more favourable traits of emerging technologies.

However, practitioners did express negative views when answering this question – negativities that were not expressed when considering the functionalities of emerging technologies (section 5.5). These negatives include emerging technologies being too expensive, unnecessary, unhelpful and impractical. For example, practitioners can still create and produce a highly successful campaign without using an emerging technology like artificial intelligence. These devices have not become mainstream enough for target publics to expect them in a campaign and therefore will not “make or break” the campaign’s success.

Also, the four negatives themselves (expensive, unnecessary, unhelpful and impractical) suggest that the emerging technologies adopted by the practitioners were an unwise investment decision. Potentially, the practitioners themselves were not consulted or trained in the use of a particular emerging technology and so when it was introduced, they saw it as a hindrance. It is also possible that the emerging technology they adopted was not suitable for public relations and instead served another purpose. This level of detail was not explored in this research and could therefore be a fruitful avenue for further research. Even in such cases, however, it is important to keep in mind that such negative experiences do not apply to all emerging technologies and that most of the time incorporating them is to the benefit to the practitioners and profession as a whole, as is reflected by the overwhelmingly positive experiences.

### **5.10 Perspectives of the Profession’s Future**

Up to now, the functionality and adoption of emerging technologies are perceived by public relations practitioners as positive. Therefore, when the eighth interview question asked participants, “Have emerging technologies shaped your opinion of the profession’s future? If so how?”, it was no surprise that most practitioners said “yes” and provided positive justifications as to how the technologies had shaped their views.

Eight of the ten practitioners said that emerging technologies shaped their opinion of the future positively, using justifications such as the devices improving the profession and creating excitement for what was to come. This is a far cry from the more hesitant perspective that was present more than two decades ago (e.g., Johnson, 1997). However, practitioners also expressed that emerging technologies have shaped their perspective of the future negatively, with perceptions like deteriorating the practice or creating anxiety around this. Since these viewpoints were few in number when compared to the positive ones, they could potentially be

considered as anomalies attributed to the once-off experiences of certain practitioners. However, if they are genuine, certain practitioners believe that future emerging technologies will create anxiety around the practice and deteriorate it. As mentioned, mitigating these negative perspectives requires the input of futurism in practice and how practitioners might do this is discussed in section 6.5 of the following chapter.

Finally, there were also some neutral responses to this question whereby practitioners expressed that they felt cautious, unsure, unchanged or uncaring. The mentions of being unsure and unchanged reflect that certain individuals are simply too hesitant or inexperienced with emerging technologies to have any opinions about how they might shape future practice. Alternatively, practitioners being uncaring as to how emerging technologies might shape the future illustrate that the importance of futurism has been lost by certain practitioners. Though only two candidates expressed feeling this way, it demonstrates that they did not see value in employing foresight into their practice, a type of nonchalance that could lead to poor public relations practice. This further demonstrates the importance of employing futurism tactics in practice so that these practitioners might be aware of the value that comes from learning and preparing for the future. It is also worth noting here that some personalities are inclined to be less future-oriented than others; potentially, the practitioners who indicated being uncaring could simply be more indifferent than the typical individual.

Practitioners' expression of being cautious is another reflection of what was identified in section 5.6. There it was mentioned that practitioners felt cautious about adopting emerging technologies into practice due to the potential ethical challenges they could present, such as concerns around existing policies, a lack of guidance and a lack of transparency (Noor Al-Deen & Hendricks, 2013). In response to this question, similar comments were received with practitioners expressing that they felt cautious about how future emerging technologies might shape public relations practice because these technologies could potentially cause practical and/or ethical challenges. Once more, the mitigation and management of this carefulness can be done through the practice of futurism.

### **5.11 Interviewees' Final Thoughts**

Finally, question nine asked practitioners, "Are there any final thoughts you would like to share?" which prompted them to discuss media ethics, integrated systems, reputation management, environmental technologies, a lack of adoption, voice recognition and wearable technologies. Since the practitioners felt these topics were worth mentioning, this final section will discuss each of these in regard to scholarly work before providing a conclusive summary to this chapter.

### **5.11.1 Media ethics.**

Media ethics is the standard of moral practice that applies to the conduct and content of mass media operations such as journalism, broadcasting, film and theatre (Chandler & Munday, 2011). Navigating ethical practice in the media profession is considered a balancing act because the very traits that make something newsworthy can also violate its integrity (Abubakar, 2020). A famous journalism-based example of this includes the case of British singer-songwriter Cliff Richard. In 2014, the police were investigating Richard on suspicion that he sexually assaulted a child at a spiritual rally in the 1980s. Dan Johnson, a BBC journalist, found out about the investigation and proceeded to camp outside the celebrity's home with a television crew to get footage of the singer. Johnson also accessed a helicopter which hovered over Richard's home and his neighbours' homes to film the scene. That afternoon they aired the story on television in addition to their other news platforms. Richard denied the claims and was later vindicated by the police but by then his reputation had been destroyed and his privacy had been being invaded. Ultimately, the star took the BBC to court where the judge overseeing the case ruled in his favour, providing a 122-page strongly-worded judgement where he called the behaviours of BBC reporters, and executives that allowed the story to air "breathless sensationalism" for the sake of a "scoop". The judge also threatened to redraw the country's media laws to make it more challenging for journalists to report on police investigations (Mendick, 2018; Waterson, 2018; Waterson, 2019).

This story demonstrates that engaging with the media through journalism or public relations can result in several challenges if ethical conduct is not given appropriate consideration.

Interviewees in this research endeavour suggested that emerging technologies needed to be given appropriate ethical consideration because they could not only affect the public relations profession but could also affect the wider mass media profession (a further extension of what was discussed in section 5.6).

### **5.11.2 Integrated technologies.**

Interview participants also mentioned integrated systems, voice recognition and wearable technologies. Though these are three different technologies, they have been combined for the purposes of this discussion because interviewees mentioned them in reference to the same context: A world where emerging technologies have been combined with the professional and personal life of an individual. As technologies continue to advance, software integrating with the day-to-day activities of individuals is becoming an increased reality (Forbes, 2018). The introduction of "Siri" and "Ask Google" is an example of this integration as they enabled the owners of these devices to verbally ask their phones questions (Weber, 2019). There are also "Fitbit" and "Smart Watches", which are able to record the number of calories a person burns and can even send e-mails (Brill, Munoz & Miller, 2019). Though these technologies might



seem to be novelties, the software behind them can be applied to other, more sophisticated devices in the future, possibly producing an increasingly integrated practitioner lifestyle. Some interviewees discussed this potential future, expressing as much support for it as they did in their earlier discussions of emerging technologies. Should this integrated future become a reality, practitioners might see themselves becoming largely, if not entirely, technologically dependant.

### **5.11.3 Reputation management.**

In addition to these findings, practitioners expressed that the role of reputation management in the public relations profession had also influenced their perspectives of emerging technologies. Reputation management is one of the most important tasks in public relations and the modern-day practitioner is not expected to complete this task at a high standard (Doorley & Garcia, 2015; Langham, 2019). For example, in 2019, Matthew Harris posted a photo to Twitter that depicted a lady on a flight from Luton to Geneva who had been seated in a backless seat (Parker, 2019). He condemned the airline they were travelling with, EasyJet, for this to which they responded with the following:

Hi Matthew, thanks for bringing this to our attention, before we can investigate this could I ask you to remove the photograph & then DM us more info regarding this so we can best assist you.

This response resulted in the tweet going viral, receiving 22,000 retweets and 42,000 likes, as the general public was outraged at the airline attempting to “silence” Harris. Later, EasyJet revealed that the lady had not actually flown in that backless seat and that she was only perched there for a moment while an actual seat was being prepared for her. By then, however, the reputational damage had been done (Oliver, 2019).

This shows how vital reputation management is to practitioners, so much so that their reputation is repeatedly at risk whenever they make a reputation-influencing decision (Helm, Liehr-Gobbers & Storck, 2011; Langham, 2019). This did not go without mention during the interview process, as interviewees discussed how their utilisation of future emerging technologies was dependent upon whether they perceived the device(s) to be supportive of their personal, professional and/or organisational reputation. Two participants even made direct reference to the now-famous Cambridge Analytica scandal, where it was revealed that consultants for the Trump campaign improperly used Facebook users’ data to build voter profiles (Confessore, 2018). The participants expressed that they did not want to be a part of the next technology-based reputational crisis, providing some explanation of why they were cautious when navigating these future emerging technologies.

#### **5.11.4 Environmentally friendly technologies.**

Practitioners also expressed concern as to whether these emerging technologies would be environmentally friendly. They revealed that the amount of once-off collateral used for events and other activities is something they were trying to minimise and did not want the inclusion of emerging technologies to add to this issue. Technological waste in itself is a problem with some devices causing considerable environmental damage after their usage, particularly devices possessing lithium-ion batteries such as cell phones (Mock, 2020). With increasing evidence of these environmental issues, certain organisations are working towards greenIT, the recycling and sustainable disposability of technological waste (Alves & Farina, 2018).

#### **5.11.5 Lack of adopting emerging technologies.**

Finally, certain practitioners emphasised that there was a lack of adoption when it came to emerging technologies in the public relations profession. In section 5.9 it was noted that although the majority of practitioners were eager to adopt emerging technologies because they were, among other aspects, perceived to be supportive, there were also a minority of practitioners who did not share this belief. This group of practitioners interpreted emerging technologies to be unnecessary, unhelpful and impractical; their opinions were based on negative past experiences that have included incorporating unhelpful technologies and lacking appropriate training and consultation. That the lack of adoption was repeated here, emphasising that although practitioners have becoming increasingly supportive of adopting emerging technologies, there is still an underlying hesitation among some.

Having discussed the final thoughts shared by practitioners regarding media ethics, integrated systems, reputation management, environmental technologies, a lack of adoption, voice recognition and wearable technologies, the next section will provide a chapter summary surrounding the main points of discussion.

### **5.12 Chapter Summary and Answering the Research Questions**

Since this chapter covers several points, a summary has been provided to clarify the discussion. Initially, it was identified that when naming emerging technologies, practitioners listed newer, fifth-generation technologies. Of these, the ones they were actually implementing in their practice were “skill” technologies such as artificial intelligence. Practitioners also saw emerging technologies as being supportive of the practice in a functional sense, like increasing efficiency. Yet they were not using these technologies to their full potential, largely due to the ethical challenges they present, such as transparency and privacy.

Interviewees shared that emerging technologies had affected the practice in a mostly positive way, like increasing their success. When considering the near future, they discussed artificial intelligence, media monitoring software and social media as the technologies that were likely to

arise or expand dramatically in the next five years. The majority of interviewees said they would adopt emerging technologies into their practice because they appeared to be helpful. When considering how emerging technologies might shape the profession's future, most practitioners responded in favour of the technologies. Finally, interviewees highlighted that practitioners were generally too hesitant in adopting emerging technologies and that the role of media ethics, reputation management and the environment in practice affected their perspectives of emerging technologies.

Having summarised the chapter's findings, it is necessary to explain how these findings answer the three main research questions.

Research question one asked participants, "What are practitioner perspectives of emerging technologies?". The interview findings determined that most practitioners viewed future emerging technologies as a positive sign of future improvement that would help increase the efficiency of tasks and gain the appeal of consumers or clients. Along with this supportive perspective, practitioners also expressed that their reputation management responsibilities affected their perceptions of future technologies, potentially making them more, or less, supportive.

This led to the second research question that asked, "Are practitioners already utilising emerging technologies in their current practice?". The investigation's findings revealed that even though practitioners had begun utilising media monitoring software and applying some forms of artificial intelligence in their workplace, for the most part, they had refrained from adopting future emerging technologies. Interviewees mainly attributed this to them being cautious of the potential negatives that could arise from utilising certain emerging technologies. Practitioners were afraid they might commit to a technology that could potentially be unhelpful, unethical or otherwise hindering, and subsequently making them hesitant to incorporating these at all.

Finally, the third research question asked, "Are there any ethical concerns when it comes to implementing emerging technologies?". The answer to this question is the most significant finding of this research endeavour because every single interview participant answered "Yes". All ten interviewees listed a myriad of ethical concerns, which were rooted in the caution they had expressed previously. Transparency was their main concern as they felt the true potential and extent of these technologies remained unknown and/or unclear.

Ultimately, the answers to the research questions could be summarised as such: Though most public relations practitioners supported future emerging technologies being integrated into their practice, when it came to actually doing this, they demonstrated a slight hesitation. This is a result of these technologies' potential being unknown and/or unclear and so they felt cautious when implementing them because they were unsure as to how these could affect their

operations. Therefore, rather than accidentally being the incorporator of an unhelpful or unethical device that could cause a crisis, the professionals decided against utilising sophisticated emerging technologies and instead invested in more mainstream technologies, such as media monitoring software.

## Chapter 6: Conclusions and Recommendations

*“Technology is a useful servant but a dangerous master.”*

- Christian Lous Lange,  
Historian, Teacher and Political Scientist.

### 6.1 Introduction

As with most thesis documents, it is vital to appropriately conclude the research endeavour by providing clarification as to what was discovered as well as future recommendations. To do this, this chapter will firstly provide overall research conclusions and answers to the main research questions. Secondly, the strengths of this thesis investigation will be listed. Thirdly, the limitations of this research endeavour will be provided. Fourthly, any recommendations pertaining to future potential research will be listed. Finally, recommendations for the public relations practice itself will be provided before a concluding chapter summary.

### 6.2 Overall Thesis Findings and Conclusions

Questions one asked interviewees, “What are practitioner perspectives of emerging technologies?”. They responded by listing new, fifth-generation technologies that have had a mostly positive effect when introduced into their practices, such as increasing efficiency and supporting tasks. They also expressed that artificial intelligence, media monitoring software and social media would be the technologies that will arise/expand dramatically in the next five years, though these applications are not currently being used to their full potential by New Zealand professionals. Finally, practitioners advocated for increased cross-platform technological integration.

What can be concluded from these findings is that perspectives of emerging technologies have become increasingly positive over the years. In the early 1990s, practitioners were still sceptical about the introduction of these technologies, though this uncertainty appears to have diminished over time to turn into overwhelming support (Johnson, 1997). It is also clear that practitioners have developed a more complex view of technologies; they are no longer just “good” or “bad” but instead are considered efficient, supportive, expensive, and the list goes on. These more complicated perspectives have likely resulted from practitioners becoming more experienced with these devices as they are increasingly integrated into the profession. These perspectives have also likely come about as a result of practitioners having ‘academically’ learnt more about emerging technologies over the years. For example, practitioners might have originally perceived using e-mail as “good” or “bad”. However, when this then-emerging technology was introduced into the workplace, this perspective would have become more complex. Similarly, if practitioners attended a workshop on e-mail or learnt about it at university, they would have also developed more complex perspectives of these technologies. Ultimately, as the profession

becomes more integrated with increasingly complex emerging technologies, the perspectives surrounding these technologies become more multifaceted.

The second research question asked, “Are practitioners already utilising emerging technologies in their current practice?”. Most practitioners expressed that they had adopted emerging technologies into their practice and would do this again in the future because it improved their work in a myriad of ways, especially by increasing efficiency. Interviewees also expressed that they perceived New Zealand practitioners as demonstrating a lack of adoption when it comes to incorporating emerging technologies into their work. Finally, practitioners emphasised that they were utilising “skill” technologies such as artificial intelligence and were looking to adopt further “skill” technologies in the future.

From these findings, it can be concluded that the adoption of emerging technologies by practitioners has largely been fuelled by the increasing number of positive perspectives surrounding these devices. It is also evident that because practitioners have begun using “skill” technologies, though this is only in its infancy, there could be a dramatic shift in the way public relations is practiced over the next five to ten years. This is because if the pattern of increasingly incorporating emerging technologies into practice continues with the addition of “skill” technologies, the way in which these technologies affect the practice is likely to be much more dramatic when compared to what has happened in the past where only “tool” technologies were introduced. Finally, though interviewees perceived that there was a lack of adoption of emerging technologies by New Zealand practitioners, actual evidence of this was not found. Instead, it is likely that the incorporation of emerging technologies into practice has been increasing as a result of the growing positive perspectives surrounding these technologies.

The third and final research question asked, “Are there any ethical concerns when it comes to implementing emerging technologies?”. Interviewees felt that there were ethical concerns, especially in relations to transparency, privacy and data mining. This is also the main reason why practitioners displayed hesitancy towards incorporating future emerging technologies into their practice. They were concerned about how these technologies might challenge their media ethics, reputation management practices and general views of environmental sustainability. Ultimately, the interviewees expressed that they had seen the value in using these technologies, yet they were wary of these technologies possibly violating ethical conduct.

From these findings, the following two key conclusions can be drawn. The first key finding suggests that there is a greater focus on how emerging technologies might affect the ethics of the profession than what was found in the past. This is likely due to practitioners exploring “skill” technologies rather than just introducing “tools”. For most part the implementation of “tools” will not challenge ethical practices because these devices work to automate and simplify tasks already present within the public relations process (Valin, 2018; Waddington, 2018).

“Skills”, on the other hand, are entirely new devices that are aimed at filling previously unnoticed gaps in the profession, making them challenging to navigate ethically and thus more unpredictable, as discussed in section 2.5 (Cook, 2019; Valin, 2018; Waddington, 2018). So, when modern practitioners implement “skills” into their practice, additional research and care needs to be taken as to how these might affect their practice. This includes investigating the wider implications of these devices, such as how stakeholders or publics might feel about the newly introduced technology. This future research is a helpful initial analysis because it likely requires no expense and only involves a couple of brainstorming sessions amongst practitioners.

The second key finding indicates that the answers given by interviewees suggested that they have employed futurism, at least in regard to ethics, when considering implementing emerging technologies. This is because interviewees expressed how they believed emerging technologies might ethically challenge future practice. Futurism involves examining and anticipating what is to come (Dupont, 2018; Rainey et al., 2009), which is what they have done. However, it is worth noting that the degree to which a practitioner can implement futurism in their practice is limited by what their organisation or agency deems a worthwhile expenditure of time and money. For example, if a practitioner wants to incorporate a new media monitoring software into their practice, the organisation they work for might forgo practicing futurism in order to get the technology operational as soon as possible. Though this is unwise, it likely occurs in the fast-paced world of public relations, where campaigns, events and other initiatives are hastily demanded.

### **6.3 Strengths**

With the research journey at an end, there are several strengths worth noting. Firstly, the lack of contradictions and anomalies within the coding process suggests that the conceptual concept analysis process was adhered to appropriately, enhancing the credibility of the findings.

Secondly, it was identified that only 44 of the 314 category code mentions were implicit mentions as depicted by Figure 2. This illustrates that the category codes were formulated correctly in conjunction with what interviewees were actually saying, as discussed in section 4.2. This also suggests that the level of implication process theorised in the methodology chapter was academically sound in determining implicit category codes.

Thirdly, Figure 11 in section 4.11 displayed any contradictions and anomalies alongside any additional thoughts interviewees wished to share. This was beneficial to the research as it assured no perspectives were removed from the overall analysis process, even if these perspectives did not align with an existing category code.

Fourthly, this research is the first of its kind, exploring public relations practitioners' perspectives of emerging technologies. It is also the first to do this in reference to New Zealand practitioners, thus making a novel contribution to academic literature.

Finally, the convenience sampling process, semi-structured interviews and conceptual content analysis method were all complementary to each other in that they sought out interviewees, interviewed them and analysed the qualitative data.

#### **6.4 Limitations**

Naturally, this thesis also encountered limitations. To start, it needs to be acknowledged that this thesis was done in relation to the achievement of a Masters in Communications and so there were time constraints surrounding its delivery. These deadlines, though reasonable, needed to be operated around for the qualification to be attained and therefore limited the extent to which the topic could be explored. Nevertheless, the findings of this research should still be counted as offering a view into the perspectives of public relations practitioners because the appropriate academic methodology was practiced.

Secondly, each interview was approximately an hour, meaning that a participant's opportunity to express their perspectives was limited to a time-based boundary. Thirdly, there were several interviewee factors that would have influenced the interview discussion and potentially limited the content of this thesis. These include the fact that all the interviewees were based in Auckland, nine of the ten interviewees were females, and half of them came from an agency background. These factors likely limited the content of this research, though the findings can still be considered significant, paving the way for a larger, more comprehensive and diverse study.

Finally, in the latter part of constructing and editing this thesis, New Zealand was at the height of its COVID-19 pandemic. Even though the pandemic itself did not affect the research data as it had already been collected, other services important to the construction of a thesis were made impossible or challenging to access. For example, all university campuses and libraries were physically closed, making it impossible to access any literature that was not online.

#### **6.5 Recommendations for Future Research**

There are also several recommendations which need to be discussed should similar research be done in the future. First, should this study be replicated or continued, the use of the level of implications process should be retained because this added credibility to the conceptual content analysis process by reducing author bias.

Second, Figures 7, 9 and 10 in the Findings chapter showed that few practitioners had neutral perspectives of future emerging technologies. They were either 'for' or 'against' these devices, with the majority supportive or optimistic about adopting emerging technologies. Future



investigations into this topic and the lack of neutrality would be a worthwhile avenue to explore and to discover if there is more to this than just being ethically challenged by these devices. This investigation could be a comprehensive, focused online survey or semi-structured interviews with a larger group of participants.

Finally, Figure 11 in the Findings chapter highlighted seven concepts that were not addressed by the interview questions but were considered important enough to be mentioned by practitioners. These concepts were media ethics, integrated systems, reputation management, environmental technologies, lack of adoption, voice recognition and wearable technologies, all of which would serve as worthwhile avenues for more extensive future research.

## **6.6 Recommendations for Public Relations Practice**

To successfully implement future emerging technologies into practice, public relations professionals require appropriate methods to address and mitigate the concerns surrounding them. This section has been provided to share four practical steps practitioners can take to do this.

First, in order to mitigate the concern about emerging technologies, practitioners should engage in the practice of futurism. Futurism, as first mentioned in section 2.4 of this thesis, involves examining and anticipating the future (Dupont, 2018; Rainey et al., 2009). Popular Western films such as *iRobot*, *ex-Machina*, *Ready Player One* and *Astroboy* provide people with the impression that in the future artificial intelligence software will make them redundant and leave them struggling to survive (Galloway & Swiatek, 2018). In reality, public relations practice is a “white-collar” occupation dependent upon human involvement and so it is unlikely the practice will ever be fully automated, especially in the near future (Kim, 2019; Tench & Yeomans, 2014).

Taking this into consideration, public relations professionals should practice futurism, where they engage in lifelong learning about emerging technologies so that they might be prepared for the changes that actually do come to pass. People fear the things they do not understand, so taking the time to learn about artificial intelligence and emerging technologies will make practitioners’ ethical judgements about them far more accurate (Badaracco, 1998; Galloway, 2005; Tench & Yeomans, 2014; Waddington, 2018). An example of practically incorporating this learning could be through university public relations courses or regular workshops offered by the Public Relations Institute of New Zealand (PRINZ).

Second, professionals must consider the value of implementing a tool or skill before it is applied (Judd, 2019). Oftentimes public relations work is rushed due to the pressure clients and the media place on practitioners to deliver campaigns (Parsons, 2016). However, when implementing a fifth-generation technology, individuals must take the time to appropriately

review any potential ethical issues that could arise from its use. Even if other organisations or agencies are already utilising the technology, this period of review must take place to assure that the practice of futurism is appropriate and that the emerging technology aligns with the organisation and its practitioners (Judd, 2019). However, it is worth noting that this review process would slow down the rate at which an emerging technology is adopted, and therefore the rate of adoption has to be managed on a case-by-case basis, depending on the complexity of the technology and the scale of impact it may have on public relations practice.

Third, practitioners need to examine whether the implementation of a technological tool or skill will decrease the authenticity of their practice. This means thinking about their publics, the messages they want to convey and their corporate or personal values to assure that the introduced technology does not clash with these in any way. Whilst being inauthentic in practice may appear to be a minor mistake, entire campaigns have lost meaning as a result of this (Thurlow, 2019). For example, in 2015 the Etisalat Telecommunications company went live with a campaign entitled the “Etisalat Challenge”. It encouraged consumers to find another telecommunications service that offered better mobile packages than they did. This campaign went viral and received a huge amount of backlash as its consumers pointed out that they were the only telecommunications provider in the United Arab Emirates and so, of course, they were the best because they had a monopoly on the profession (Etisalat UAE, 2015). This campaign is a good example of significant financial investment and celebrity endorsements going to waste as a result of inauthentic practices.

Last, as discussed in previous sections, practitioners in the nineties were hesitant when incorporating emerging technologies for fear they would have a depersonalisation effect on their communications, yet at the same time they felt pressured to incorporate these devices to remain relevant alongside younger co-workers (Johnson, 1997; Somerville & Wood, 2007).

Practitioners interviewed in this research endeavour did not express any depersonalisation concerns when incorporating new technologies, which suggests that emerging technologies no longer present this issue, though this does not mean they will not do so in the future. Therefore, practitioners should not become complacent. They must instead do their due diligence when researching to assure that the emerging technology matches with the campaign’s purpose before it is assimilated into practice.

Putting into practice these four instructions will enable practitioners to reduce the concerns they have regarding future emerging technologies, thereby giving them greater control in the decision making occurring around them.

## **6.7 Summary**

This chapter brings the thesis to a close by discussing its overall conclusions, answering the main research questions, and discussing strengths, limitations and recommendations. Doing this

means, firstly, that practitioner perspectives, utilisation and ethical challenges of emerging technologies were revealed. Secondly, the strengths of the research endeavour were identified, such as its lack of contradictions and anomalies. Thirdly, limitations to the investigation were described with the most unpredictable being the COVID-19 pandemic. Fourthly, recommendations pertaining to future potential research were listed, including topic suggestions for surveys or interviews. Finally, four recommendations for the public relations practice itself were provided: Considering whether a future emerging technology is a “tool” or a “skill”, practicing futurism and thereby lifelong learning, evaluating technologies before implementing them, and assuring that authenticity practices are consistently maintained when incorporating emerging technologies. In adhering to these four recommendations, a number of practitioner concerns will be mitigated as well as adding support to the continually evolving relationship shared between emerging technologies and public relations.

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## Appendices

### Appendix A: Recruitment of Participants E-mail

Dear (INSERT NAME HERE),

My name is Kelsey Schutte and I am a Master student of Communication Studies at Auckland University of Technology. My area of study is Public Relations, in which I also have my Bachelor in Communication Studies (BCS). During my studies and employment endeavours, my passion for the practice continued to grow and I developed an interest in the profession's relationship with technology. This is what inspired my current research investigation titled, "Public Relations Practitioners' Perspectives of Emerging Technologies".

This research will attempt to answer how practitioners perceive and use modern software and machineries as part of their practice. To gather data, I'm conducting approximately 8 to 12 face-to-face semi-structured interviews with public relations practitioners listed on the PRINZ's Membership Register.

I would like to invite you to participate in an interview on the topic. The interview will take place over a cup of coffee at a café at a time convenient to you and will take about 45 to 60 minutes.

The data will be collated and all identifying information (such as your identity) will be removed from the data set. Therefore, the interview will remain entirely confidential.

The findings will be published in my thesis as part of my Master of Communication Studies (MCS), and I intend on making available a summary of the findings to you, should you wish to receive it.

I have attached a Participant Information Sheet for your perusal and more information should you be interested in participating.

Please feel free to e-mail me should you have any further questions or concerns.

Your support in this endeavour would be greatly appreciated,

Kind Regards,

Kelsey Schutte.

## **Appendix B: Participant Information Sheet**

### **Date Information Sheet Produced:**

29/07/2019

### **Project Title**

Public Relations Practitioners' Perspectives on Emerging Technologies

### **An Invitation**

My name is Kelsey Schutte and I am a Master student of Communication Studies at Auckland University of Technology. My area of study is Public Relations, in which I also have my Bachelor in Communication Studies (BCS). During my studies and employment endeavours, my passion for the practice continued to grow and I developed an interest in the profession's relationship with technology. This is what inspired my current research.

This research will attempt to answer how practitioners perceive and use modern software and machineries as part of their practice. To gather data, I'm conducting approximately 8 to 12 face-to-face semi-structured interviews with experienced public relations practitioners listed on the PRINZ's Membership Register.

I would like to invite you to participate in an interview on the topic. The interview will take place over a cup of coffee at a café at a time convenient to you and will take about 45 to 60 minutes.

The data will be collated and all identifying information (such as your identity) will be removed from the data set. Therefore, the interview will remain entirely confidential.

The findings will be published in my thesis as part of my Master of Communication Studies (MCS), and I intend making available a summary of the findings to you, should you wish to receive it.

Please feel free to e-mail me should you have any further questions or concerns.

Your support in this endeavour would be greatly appreciated,

Kind Regards,

Kelsey Schutte.

**What is the purpose of this research?**

The purpose is to identify public relations practitioners' perspectives of emerging technologies. This will be done through a semi-structured interview process involving 8 to 12 public relations practitioners. The findings of this research will be also be used in writing my thesis as part of my Master of Communication Studies (MCS).

**How was I identified and why am I being invited to participate in this research?**

You have been invited to participate because you are listed on PRINZ's Member Register and you have been working for more than one year as a public relations practitioner in New Zealand.

**How do I agree to participate in this research?**

Your participation in this research is voluntary (it is your choice) and whether you choose to participate will neither advantage nor disadvantage you. If you decide to participate, you can withdraw from the study at any time. If you choose to withdraw from the study, you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible. Should you agree to take part in the research, you will be provided with a consent form at the start of the interview for you to peruse and sign.

**What will happen in this research?**

This research project involves interviewing public relations practitioners about their perspectives of emerging technologies and identifying trends in these perceptions that might arise. Your only involvement will be a 45–60 minute interview which will be recorded and transcribed. These transcripts will not be given back to the interviewees, but the data collected from them will be collated into a brief document and sent back to the interviewee should they want this.

**What are the discomforts and risks?**

The only discomforts and risks that are foreseen is giving up your time to be interviewed. There are no questions of a personal or intimate nature; the research focuses on the perceptions and use of emerging technologies in your day-to-day public relations practice.

**How will these discomforts and risks be alleviated?**

Should you inadvertently share information of a confidential nature, these will be removed or anonymised so that you or your place of work are not identified. This research is only concerned with the use and perceptions of emerging technologies.

**What are the benefits?**

This research will allow me to explore current public relations practice and write my thesis. It may also potentially allow me to present the findings at a conference or publish a journal article.



The research will also benefit the public relations community as it investigates the current use and trends in emerging technologies.

For you as a practitioner:

- It will allow you to share your views on the relevancy of and use of emerging technologies in public relations practice over a free cup of coffee;
- It will provide an opportunity to reflect on your practice and the role of emerging technologies;
- Provide you with the prospect of being involved in scholarly research, providing insight into general public relations practice and the creation of public relations literature.

### **How will my privacy be protected?**

Your privacy will be protected by keeping your participation in the research confidential and not sharing your views and answers with anyone other than with me, Kelsey Schutte, and my supervisor, Assoc. Prof. Petra Theunissen. Only quotes that do not identify you will be used in the findings and all material will be anonymised. All notes and data obtained during interviews will be kept in a secured safe belonging to the Project Supervisor and will be permanently destroyed six years post the thesis's completion.

### **What are the costs of participating in this research?**

The only costs associated with participating include:

- an approximate hour of your time, and
- your travel to and from the interview location.

### **What opportunity do I have to consider this invitation?**

You have a week to consider whether you would like to accept this invitation.

### **Will I receive feedback on the results of this research?**

Once the findings from the data have been collated and interpreted, you will be offered the opportunity to receive a brief summary of the results.

### **What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Petra Theunissen, [ptheunis@aut.ac.nz](mailto:ptheunis@aut.ac.nz), +64 9 921 9999 ext. 7854.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz), 921 9999 ext. 6038.

**Whom do I contact for further information about this research?**

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

***Researcher Contact Details:***

Kelsey Schutte – [schuttekelsey@gmail.com](mailto:schuttekelsey@gmail.com)

***Project Supervisor Contact Details:***

Associate Professor Petra Theunissen - [ptheunis@aut.ac.nz](mailto:ptheunis@aut.ac.nz)

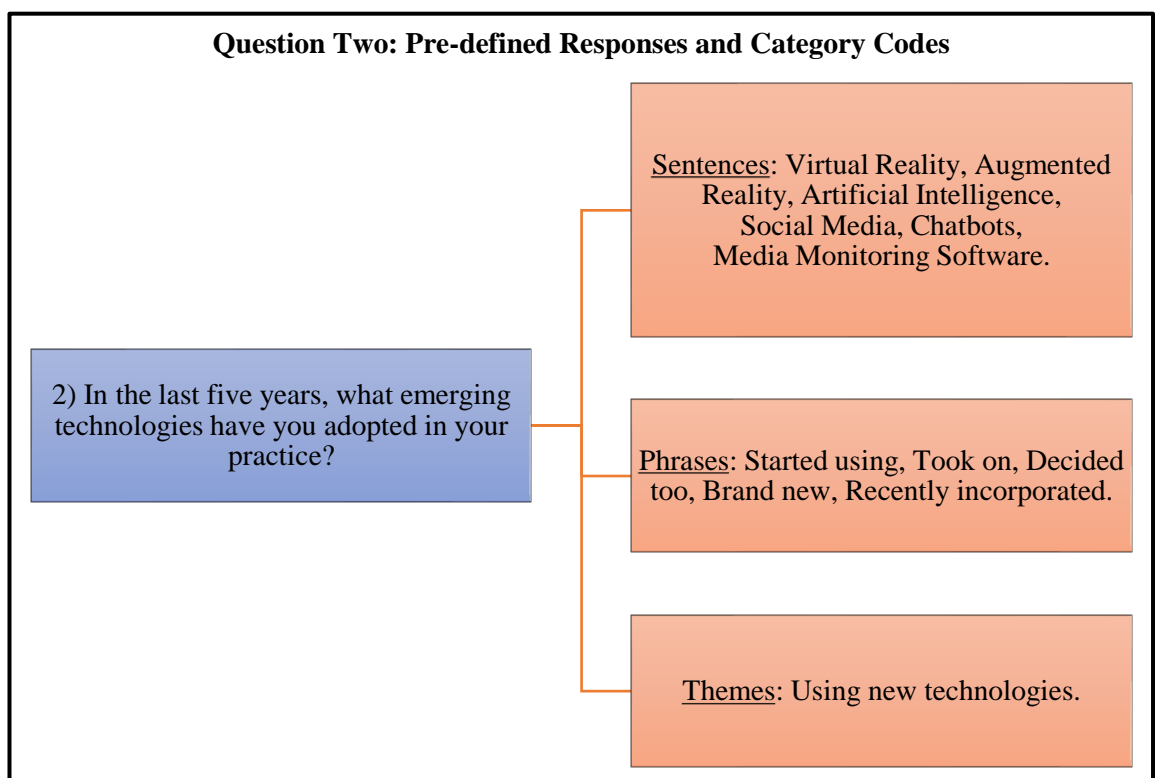
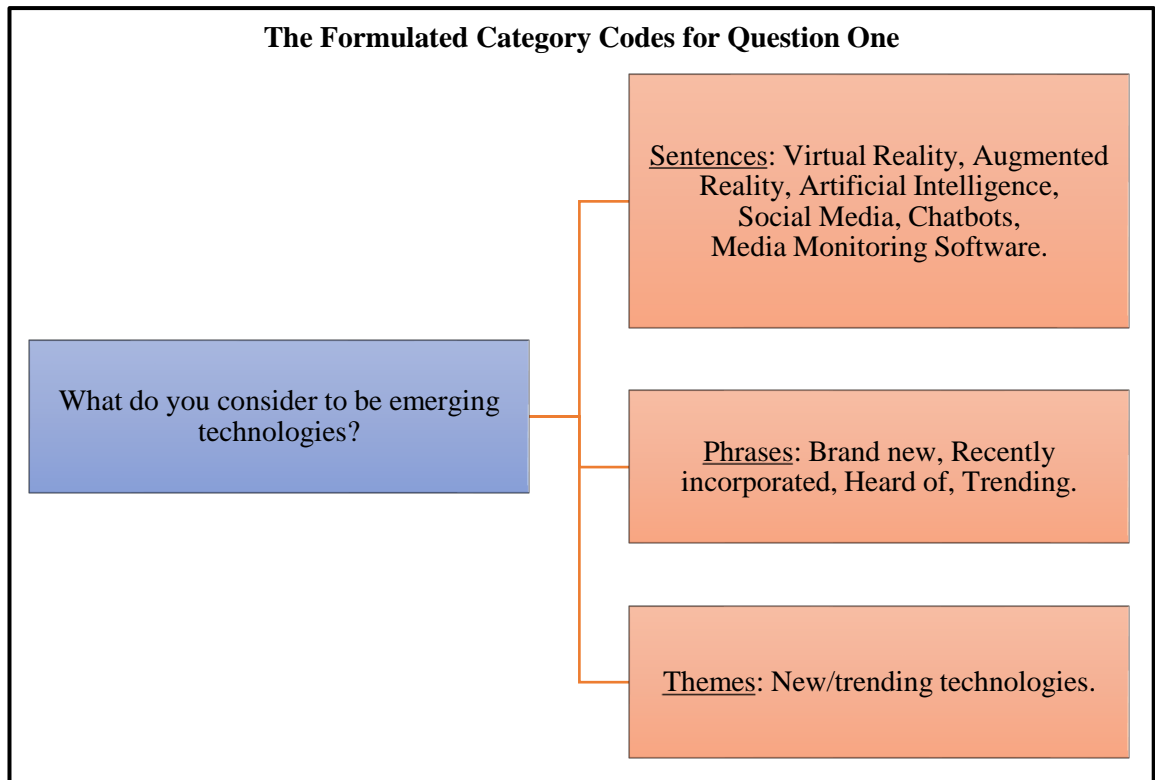
**Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTECH Reference number *type the reference number*.**

**Appendix C: Interview Questions**

- 1) What do you consider to be emerging technologies?
- 2) In the last five years what emerging technologies have you adopted in your practice?
- 3) In your opinion what are the functions of these emerging technologies?
- 4) Are there any ethical challenges when utilising these emerging technologies? If so, what are these challenges?
- 5) From your experience, how have these emerging technologies affected your practice?
- 6) What technologies do you foresee in the next five years?
- 7) Will you adopt these technologies in your personal practice? Why/Why not?
- 8) Has emerging technologies shaped your opinion of the profession's future? If so how?
- 9) Are there any final thoughts you would like to share?

## Appendix D: The Formulation of Category Codes Figures

The below ten figures visually represent the different sentences, phrases and themes identified during step three of the conceptual content analysis process. The codes formulated during this process enabled the quantification of what would have otherwise been qualitative data.



### Question Three: Pre-defined Responses and Category Codes

3) In your opinion, what are the functions of these emerging technologies?

Sentences: Improve efficiency, More powerful, Faster, Helpful, Supportive of work tasks, Trendy and novel, Appealing to clients/consumers.

Phrases: Enabling us to, Changing the way we used to, Showing us new things, Fixing our problems, Helping us to, Bettering our methods.

Themes: Technological purposes.

### Question Four: Pre-defined Responses and Category Codes

4) Are there any ethical challenges when utilising these emerging technologies? If so, what are these challenges?

Sentences:  
Yes = Challenges such as, Data Mining, Big Brother, Selling Information, Privacy, Transparency, Cyber-security, Free Will, Trust.  
No = There are no challenges.

Phrases: Problems that come, Issues that arise, Concerns that are there, Troubling thoughts, Questioning ideas, Morally wrong, Ethical issues.

Themes: Ethical Concerns.  
Technological Anxiety.

### Question Five: Pre-defined Responses and Category Codes

5) From your experience, how have these technologies affected your practice?

Sentences: Better, Worse, Improvement, Stagnation, Successes, Failures, Smarter, Faster Operations, Remained Relevant, Confusion.

Phrases: Improved Operations, Increased Output, Decreased Output, Increased Productivity, Caused Problems, Created Clarity.

Themes: Technological Improvement or Deterioration.

### Question Six: Pre-defined Responses and Category Codes

6) What technologies do you foresee in the next five years?

Sentences: Artificial Intelligence, Social Media, Chatbots, Media Monitoring Software, No New Technologies.

Phrases: Heard about using, Would like to see, Recently started, It's too soon, Can't imagine anything new.

Themes: Immediate-Future Technologies.

### Question Seven: Pre-defined Responses and Category Codes

7) Will you adopt these technologies in your personal practice? Why/why not?

#### Sentences:

Yes = Invaluable, Helpful, Efficient, Competitive-Edge, Supportive, Trendy, Faster, Evolving.

No = Unhelpful, Impractical, Expensive, Unnecessary, Illogical.

Phrases: Would(n't) use, would(n't) support, (dis)like using, do(n't) care, unsure about.

Themes: Personal Perspective of Technologies.

### Question Eight: Pre-defined Responses and Category Codes

8) Have emerging technologies shaped your opinion of the profession's future? If so, how?

#### Sentences:

Yes = Improved, Deteriorated, Exciting, Anxiety, Caution.  
No = Unchanged, Uncaring, Unsure.

Phrases: Concerns for, Eager for, Thinking about, Changes coming, Bettering and/or Worsening of, Moral apprehensions.

Themes: Personal Perspective of Technologies.

### Question Nine: Pre-defined Responses and Category Codes

9) Are there any final thoughts you would like to share?

Sentences/Phrases/Themes: The purpose of this last question is to provide room for the participant to share perspectives the researcher might not have considered when constructing the questions. Therefore, it is impossible to determine what sentences, phrases, or themes might be generated from this question.

## Appendix E: Text Coding Process

The below tables illustrate which category codes were specifically mentioned by interviewees in each of the nine questions and for all ten interviews. Example quotes showing interviewees mentioning category codes, as well as the contradictions and anomalies they state, have also been provided. Finally, the level of implication expressing the degree to which they implied the mentioned category codes is expressed. Ultimately, showing detailed depictions of the content analysis' text coding process.

Interview One: Alex					
#	Category Code(s):	Example Quote:	Level of Implication: (Implicit concepts)	Contradictions and Anomalies:	Category Codes Frequency: (Explicit concepts)
1)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"Absolutely A.I. It's not overly new but its application is."</i>	Not Applicable.	- Voice/Face recognition.	- Artificial Intelligence.
2)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"A big 5-year investment in Cyber-security. We now have multifactor authentication." "We've been shifting more and more of our tech onto the cloud." "We could use AI to help with our menial tasks and it frees our consultants up to do more interesting work."</i>	Not Applicable.	- Integrated Networks (the cloud and Microsoft). - Cyber-security.	- Media Monitoring Software. - Artificial Intelligence.
3)	- Efficiency. - Powerful. - Faster. - Supportive. - Trendy. - Appealing to clients and/or consumers.	<i>"There are applications for business developments that in-house PR can't do." "Overall, it will make campaigns more impactful."</i>	-Supportive. - Appealing to clients and/or consumers.	None.	-Supportive. - Appealing to clients and/or consumers.
4)	- Yes or No. - Data Mining. - Big Brother. - Selling Information. - Privacy. -Transparency.	<i>"As comm's people, we have to fully understand the context of the environment we are playing in."</i>	-Yes. - Trust. - Transparency.	- Reputation Management. - Social Media.	-Yes. -Trust. - Transparency. - Data mining.



	<ul style="list-style-type: none"> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<i>"We have to consider the legitimacy of the data we are using."</i>			
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>"Made a huge difference. It's really helped our business immensely".</i> <i>"Decreased admin, increased efficiency, given us heaps of data and metrics to improve".</i> <i>"It has meant our business is more resilient. It also creates flexibility."</i>	Not Applicable.	- Social Media Analytics.	<ul style="list-style-type: none"> <li>-Better.</li> <li>- Improvement.</li> <li>- Success.</li> <li>- Smarter.</li> <li>- Faster.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"I think it's the ones we've already got at a far more pervasive level".</i> <i>"Google is doctored because you're only seeing the top ten options that have been paid to be there."</i> <i>"We have to weigh up their uses."</i>	- Media Monitoring Software.	<ul style="list-style-type: none"> <li>- Voice Recognition.</li> <li>- Cyber-security.</li> </ul>	<ul style="list-style-type: none"> <li>- Media Monitoring Software.</li> <li>- Artificial Intelligence.</li> </ul>
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>"We'll go with what makes sense and also there's a cost and a need factor".</i> <i>"We want to anticipate disruption and go with the flow of these changes."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Supportive.</li> <li>- Competitive-Edge.</li> <li>- Expensive.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>"These kinds of technologies will absolutely change our profession; it will change everyone's profession."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Improved.</li> </ul>
9)	Not Applicable	<i>"This is a huge topic with many perspectives."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Various Perspectives.</li> <li>- Client Considerations.</li> </ul>

Interview Two: Amy					
#	Category Code(s):	Example Quote:	Level of Implication:	Contradictions and Anomalies:	Category Codes Frequency:
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"I think a lot of technology is becoming very automated...it's all becoming a lot more online-based and cloud-based and using your phone as your life essentially."</i>	- Artificial Intelligence.	<ul style="list-style-type: none"> <li>- Increased Automation.</li> <li>- Integrated Networks (the cloud).</li> </ul>	- Artificial Intelligence.
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"I think wearable accessories have really become a big thing...but then I also think the quality of mobile devices has increased..."</i>	Not Applicable.	- Wearable Technologies.	None.
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<i>"So, I think a lot of it is in terms of convenience and people really tight on time so then they'll use these devices to help them."</i> <i>"You know, utilise their time better and then also money and the environment."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Faster.</li> <li>- Supportive.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<i>"I think there's a real dilemma in the sense of where these products are made and how there's like a top minority who disadvantage the majority of people around the world to have personal gain."</i> <i>"Like we've become so reliant on it...talking about AI taking over and you're just like, whoa, that's starting to become true."</i> <i>"We're actually starting to become so reliant on these"</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> </ul>

		<i>devices, you cannot function without them and, if you do function without it, you're 'weird'.</i>			
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<p><i>"I literally wouldn't be able to do my job without them because my company was all based from home."</i></p> <p><i>"Data mining is definitely prevalent."</i></p> <p><i>"I do believe that we readily give out way more information than what we may realise and it's not a matter of something we can control over."</i></p> <p><i>"So yeah, you know, online banking or using Instagram or Facebook or Online shopping, as soon as you want to participate in any of these e-commerce arenas, you're forced to have your data tracked."</i></p>	Not Applicable.	- Data mining was discussed at length.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Success.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"One thing I would actually really hope for is... these dispensers for bottles."</i></p> <p><i>"And then I would like to see more electric vehicles become more prevalent."</i></p>	Not Applicable.	- Environmental Technologies.	None.
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<p><i>"I would definitely use the bottle collection one."</i></p> <p><i>"So yeah, I guess there's like a basic dilemma there because the technologies not quite there in New Zealand."</i></p>	<ul style="list-style-type: none"> <li>- Supportive.</li> <li>- Expensive.</li> </ul>	- Environmental Technologies.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Supportive.</li> <li>- Expensive.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> </ul>	<p><i>"I think they impact each other."</i></p> <p><i>"Also, in regards to e-mails, the amount of e-mails that you fire up within a day, if you</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Improved.</li> <li>- Exciting.</li> </ul>

	<ul style="list-style-type: none"> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<p><i>had to hand deliver them or put them into the post like; I think that PR has been a created niche as a result of these technologies.”</i></p> <p><i>“And I think the type of work that PR has certainly evolved as technology has evolved and increased becoming very digitally driven.”</i></p>			
9)	Not Applicable	<p><i>“I think it’s certainly a job you do if you’re from a privileged society.”</i></p> <p><i>“I think you’re playing lots of ego’s in PR and it becomes this rich man’s game rather than it necessarily being a useful service.”</i></p> <p><i>“It’s a very superficial field.”</i></p> <p><i>“But then the robots also come into play, how they have those “like farms” where they have rows and rows of technologies liking, liking, liking, and it’s not actually real numbers.”</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Vanity metrics.</li> <li>- Superficiality of the profession.</li> </ul>

Interview Three: Laura					
#	<u>Category Code(s):</u>	<u>Example Quote:</u>	<u>Level of Implication:</u>	<u>Contradictions and Anomalies:</u>	<u>Category Codes Frequency:</u>
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>“I feel like technology within the news space is changing a lot. Social platforms are changing all the time and the way that the news is being reported is constantly changing.”</i></p> <p><i>“And I think we’re seeing more in terms of news reporting and online-advertising is predominantly done online and, within our profession, people are</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>

		<i>sort of struggling because we haven't quite got used to the new technology and new social platforms."</i>			
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"We use the computer, so we use Gmail, Google File Stream, like, file sharing stuff... Just like general news sites. "</i>	Not Applicable.	<ul style="list-style-type: none"> <li>- E-mail Services.</li> <li>- Integrated networks.</li> </ul>	None.
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<i>"A lot of it's about sharing; sharing information, sharing data, sharing everything...whether that's work or personal."</i>	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<i>"Yes, definitely with data, that's the main one."</i> <i>"Once it's online you can't take it back... It's up there forever even if you delete it or un-tag yourself it's still there."</i> <i>"Then obviously there's also the stuff with Christchurch, the live streaming is like horrible. And it's not just that one, there was one a couple of weeks ago in Germany where he livestreamed something as well."</i> <i>"With AI I'm sort of-like it's good for some things but I think organisations are probably going to take it too far."</i> <i>"If the way they're teaching technology to learn is by teaching itself, I think it's quite dangerous in itself because you don't know what it's going to teach itself."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> </ul>
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> </ul>	<i>"Even things like when you go into a website it's</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Worse.</li> <li>- Confusion.</li> </ul>

	<ul style="list-style-type: none"> <li>- Improvement</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>tracking your location, tracking your IP address, and if you put your contact details in, they have that forever."</i>			
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"There might be regulation on social media platforms."</i> <i>"And we'll probably see less people engaged with local journalism. I think that's a trend that's been going on for a long time."</i>	Not Applicable.	- Reputation Management.	- Social Media.
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>"AI I'm not really a fan of."</i> <i>"Like I think Chatbots are good for standard questions, maybe like the frequently asked sorts of questions, but when they start replacing humans no."</i> <i>"Another aspect of AI is that they're sort of teaching them to understand human emotion and I think that's pretty weird."</i> <i>"I think our society has put too much online these days and I really think there is like a lack of personal interaction which is sort of sad. But it's also good because you can stay in contact with people across the world."</i>	Not Applicable.	- Unethical.	- No. - Unnecessary.
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>"Yeah, more people are going on social media, less news outlets, then it's obviously making it harder to get on the news which is clearly affecting our practice..."</i> <i>"Or, alternatively, maybe what we're doing isn't innovative enough so maybe the way that we work needs to be more adoptive to these new technologies rather than focusing predominantly</i>	Not Applicable.	None.	- Yes. - Anxiety. - Caution.

		<i>on trying to get in the news."</i>			
9)	Not Applicable	The participant elected to make no further comments.			

Interview Four: Helen					
#	<u>Category Code(s):</u>	<u>Example Quote:</u>	<u>Level of Implication:</u>	<u>Contradictions and Anomalies:</u>	<u>Category Codes Frequency:</u>
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"That's where we're really lucky because things are going to become much easier."</i></p> <p><i>"A lot of my job is media monitoring... there are software where we get automatic e-mails and all that sort of stuff, that can tell us how our clients are being represented."</i></p>	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"Everything is going so much more digital and so I guess it's easier actually."</i></p> <p><i>"The way we communicate is so much more instantaneous."</i></p> <p><i>"We're being brought up to do everything online which is actually making us more anti-social."</i></p>	<ul style="list-style-type: none"> <li>- Social Media.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<p><i>"They make everything so much faster, so much quicker."</i></p>	<ul style="list-style-type: none"> <li>- Powerful.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> </ul>	<p><i>"We do a lot of research on trust and it's like our clients hold a lot of very confidential informational."</i></p> <p><i>"I guess that is the ethical dilemma is that we are relying on this software, with all of this confidential information and what if there's a data breach or a security breach."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Trust.</li> </ul>

	- Trust.				
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>"I think I'm lucky in that I haven't actually even known working without having them."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Confusion.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"I feel like it's going to go less e-mail based and more quick chatrooms based... even more webinar than face-to-face based to be honest."</i> <i>"Like earned media is actually going to mix with paid and like, sort of, hybridity, where you're actually more likely to be guaranteed digital space for your product."</i>	- Media Monitoring Software.	- Integrated networks.	- Media Monitoring Software.
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>"I definitely would I mean, I feel like if you're not up to play with the latest communications trends and technologies and digitalization, you're going to fall behind and your business is not going to thrive and you're just going to become one of those old fashioned, you know, boring ones."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Evolving.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>"So, once reputation was solely controlled by the brand and that was because there weren't any online social media aspects. There was literally what the company said about the brand that was the only thing that could be said. Now, with these technologies and social media, with the fact that things go viral, with the fact that things get leaked,</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> </ul>



		<i>there are data breaches, all sorts of stuff, the reputation is actually held by the loudest voice as to the brand. That has opened a whole new, and now a job task, that the PR consultant has to do because it's so much more than just sending out a media release and hoping that it's going to be coverage. It's actually- you're managing patents and crisis if they come up. It's completely amplified by social media, so yes I definitely think it's changed my opinion, shaped my opinion of it."</i>			
9)	Not Applicable	<i>"I just want to add that I am really excited for what the future holds." "I'm excited to see how artificial intelligence is going to help with reading the sentiment of articles because at the moment, even though it tries it cannot. That will make the process so much easier and things like that really interesting in terms of how artificial intelligence is going to shape the landscape of the profession."</i>	Not Applicable.	None.	- Artificial Intelligence. - Exciting.

Interview Five: Zara					
#	<u>Category Code(s):</u>	<u>Example Quote:</u>	<u>Level of Implication:</u>	<u>Contradictions and Anomalies:</u>	<u>Category Codes Frequency:</u>
1)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"I suppose that would be stuff like artificial intelligence, the Internet of Things, chatbots, maybe like VR or a new kind of wearable technology."</i>	Not Applicable.	- Wearable Technology. - Integrated Systems (Internet of Things)	- Virtual Reality. - Artificial Intelligence. - Chatbots.

2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"I would say that chatbots got really popular for a while."</i></p> <p><i>"And I think VR as well."</i></p> <p><i>"I think a lot of companies can jump on the bandwagon of stuff like that without actually considering what they need."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Chatbots.</li> </ul>
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<p><i>"I feel like there's ease of use."</i></p> <p><i>"They've brought out stuff where you upload a photo of a clothing item and it will search the stock for what's most like it."</i></p>	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Supportive.</li> <li>- Trendy.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<p><i>"The main one is probably privacy."</i></p> <p><i>"You know people might start to worry; "Oh where is this image being saved? Is there a way someone is accessing this?" because I feel like everyone's data is out there. That Google and Facebook sell your data onto other companies and they can ascertain a lot from you..."</i></p>	<ul style="list-style-type: none"> <li>- Big Brother.</li> <li>- Cyber-security.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> </ul>
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<p><i>"Like that place that wanted to develop some sort of artificial intelligence tool or chatbot-it never eventuated because there was a low-level need for it and the technology hasn't quite evolved to become mainstream enough..."</i></p> <p><i>"And obviously you need the big budgets for it and the places I worked at do not have budgets for it, or the people in charge are quite old school."</i></p>	<ul style="list-style-type: none"> <li>- Improvement.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Confusion.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> </ul>	<p><i>"New stuff like Alexa and Siri will get a bit more there; you might get a bit"</i></p>	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> </ul>	<ul style="list-style-type: none"> <li>- Integrated Systems.</li> <li>- Voice Recognition.</li> </ul>	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> </ul>

	<ul style="list-style-type: none"> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>more of the wearable technology.”</i></p> <p><i>“I want to copy and paste between my devices, link things rather more rather than having it so separate. I feel like there’s a lot of opportunity with emerging technologies is going to make the integration between real life and different devices more seamless and more useful.”</i></p>			
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<p><i>“Where I am at the moment there’s not a huge amount of opportunity for it just based on the intense privacy needs and concerns.”</i></p> <p><i>“You know, using old systems and you know people in-house still love paper; Doctors still love fax.”</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- No.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Unnecessary.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<p><i>“Like there’s some big adopters of it and there’s a lot of early adopters but I don’t know if it’s really infiltrated like New Zealand quite to the point that it would be.”</i></p> <p><i>“I feel like at the end of the day-let’s say you create a VR app, that’s awesome but you’re still doing PR, you’re still trying to get on the news, trying to get into magazines, trying to get on blogs, to promote; that’s where it’s at. The tool’s awesome but at the end of the day what’s actually driving that promotion is having something interesting to go on the news and it just happened to be that tool.”</i></p> <p><i>“Yeah, I feel like a lot of places are still just focusing on that</i></p>	- Uncaring.	None.	<ul style="list-style-type: none"> <li>- No.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>

		<i>traditional PR generation and events and stuff like that, and just incorporate some of that technology into the event."</i>			
9)	Not Applicable	<i>"Well, something that does bother me about comms, advertising and PR is, and not to be all millennial, very wasteful. You know, it's the amount of things that are produced for one off events ..."</i>	Not Applicable.	None.	- Environmental Technologies.

Interview Six: Cole					
#	<u>Category Code(s):</u>	<u>Example Quote:</u>	<u>Level of Implication:</u>	<u>Contradictions and Anomalies:</u>	<u>Category Codes Frequency:</u>
1)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"I'm saying that media analytics is way more now, when I started in comms that was cutting newspaper clippings out with scissors." "In terms of emerging like social media, well I wouldn't call it emerging but more evolving."</i>	Not Applicable.	None.	- Social Media. - Media Monitoring Software.
2)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"I guess aside from media monitoring trying to get quicker, like when I started..." "Social media, you know, I guess has let organisations and politicians control their own type of news and appearance, so it's kind of cut out the middle person a little bit."</i>	Not Applicable.	None.	- Social Media. - Media Monitoring Software.
3)	- Efficiency. - Powerful. - Faster. - Supportive. - Trendy. - Appealing to clients and/or consumers.	<i>"Umm well I guess social media... media analytics, media monitoring just literally reports on exactly what has been said about something you know what news is coming out what stories are, and in a lot more detail because you get your audience numbers, reach, demographics and that type of thing."</i>	Not Applicable.	None.	- Efficiency. - Powerful. - Faster. - Supportive.

4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<i>"So, I mean ethically I guess it's really dangerous with things like the anti-vax movement."</i>	Not Applicable.	- Misinformation.	- Yes.
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>"Tens of thousands of articles a year are partially developed by AI and so they've developed AI that can pull through a company's financial record or annual report and basically turn that into an article. Something which might have taken the journalists you know hours or days... comms people are going to have to start writing for AI."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Confusion.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"I think the media profession is going to have to look at how to evolve with constantly shrinking budgets."</i> <i>"I mean imagine if you have ways that you can get an AI to crawl through a charity register..."</i>	Not Applicable.	- Expensive.	- Artificial Intelligence.
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>"The thing with public relations is to be very good with whatever changes come and using them really well."</i> <i>"The analytics I mean...it's always important to be data led in what you do but it will be interesting to see what new technology can bring."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>

8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<p><i>"I think it's really dangerous that anyone can say anything online. I mean I think it's great because in an ideal world the internet is a human right."</i></p> <p><i>"Privacy is an interesting one you know; everyone sort of thinks they have the right to privacy and that's being very quickly eroded away."</i></p> <p><i>"Yeah, but privacy as well also holds back technology, like if you look in New Zealand we are very, very behind when it comes to digitalising private patient records."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Caution.</li> <li>- Unsure.</li> </ul>
9)	Not Applicable	<p><i>"Like while evolving with the times at the end of the day my job hasn't really changed at all."</i></p> <p><i>"If you look there's a direct relation between freedom and freedom of press in a country."</i></p> <p><i>"So hopefully technology is used for better transparency."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Stagnation.</li> <li>- Media Ethics.</li> <li>- Transparency.</li> </ul>

Interview Seven: Cathy					
#	Category Code(s):	Example Quote:	Level of Implication:	Contradictions and Anomalies:	Category Codes Frequency:
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"When I started there was really only a few large media organisations that were used to tell our story and there were no measurement metrics but now with digital there are so many digital tools and products you can use to measure your work more efficiently."</i></p> <p><i>"There's a real art and science to that now it's not just a matter of sending out a press release, there are so many different channels yet it's harder than ever before to actually communicate"</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>

		<i>with people because we've got about less than eight seconds to actually hold people."</i>			
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"So, there's a whole range of different products including some of the tools that Google provides for free."</i></p> <p><i>"And then there's some metrics that we also aren't measuring and that is backlinks and shares which are the "gold nuggets" for our profession."</i></p> <p><i>"Data for me is absolute gold, you can get so much information from the likes of Google Analytics and Google Trends..."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Media Monitoring Software.</li> </ul>
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<p><i>"Well, if you boil it down, it's about knowing your audience better."</i></p> <p><i>"And also, the second part is measurement. There's a whole range of new measurement metrics thanks to technology, that you can use to measure your success."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<p><i>"Yeah, I mean I think it depends on what you're using. I think Facebook and social channels when you're using it in the right way is an amazing way to communicate to your audience."</i></p> <p><i>"But that whole data collection thing is one thing that we really need to be careful with and how you target audiences."</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Trust.</li> </ul>
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> </ul>	<p><i>"It's huge and it's done my head in."</i></p> <p><i>"These days there's a whole lot of work that you need to do up front using data and analytics to actually understand what your audience wants and where they are and how</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success.</li> </ul>

	<ul style="list-style-type: none"> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>to communicate with them.”</i> <i>“The thing with me is, it takes a bit of that old school experience smashed together with new technology to actually understand how to build the right strategy these days.”</i>			
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>“Definitely AI will play a role. But taking a step back I think it’s too big a leap for our profession at the moment.”</i> <i>“They need to understand how search engines like Google works.”</i> <i>“They also need to understand how to use data properly and new measurement metrics like domain authority to understand how to measure their success properly.”</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>“Yes, I’ve been doing it for a year. The great thing about it is as much as it makes our job a lot less complicated and it actually provides us with more evidence than we’ve had than ever before that our work is really valuable and not only is hitting the right audiences and gives us reassurance that we’re getting the right messages to the right people...”</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Faster.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>“Absolutely, we’re very slow to adapt.”</i> <i>“I know I was there four years ago; you get stuck in the day-to-day ‘doing’ and it’s very hard to step out and understand where things have gone and a lot of people are being left behind.”</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Anxiety.</li> </ul>
9)	Not Applicable	<i>“I mean I think for me the biggest issue is a lack of adoption from our profession and recognition that</i>	Not applicable.	None.	<ul style="list-style-type: none"> <li>- Trust.</li> <li>- Lack of Adoption.</li> </ul>



		<i>technologies changed the game for everyone. And then coupled with that there is a range of issues that have made it harder because things like fake news have made it more difficult and a lot of people are less trusting of our profession."</i>			
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Interview Eight: Rose					
#	Category Code(s):	Example Quote:	Level of Implication:	Contradictions and Anomalies:	Category Codes Frequency:
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"I think AI is of great interest to us here."</i></p> <p><i>"So, anything that can streamline the process that gets you to that trained professional and their exercise quicker is a great thing."</i></p>	Not Applicable.	None	- Artificial Intelligence.
2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"Well about a bazillion! Look it's everything from using Facebook in a really smart way to run geo-targeted, really nimble campaigns."</i></p> <p><i>"I'm really interested in social media and social media as a communication rather than clinical intervention."</i></p>	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<p><i>"Well, we need to keep our eye on that because otherwise we miss big cohorts. We're just about to do a big campaign around cervical screening and everyone's talking about e-mailing people and I'm thinking trying to reach 24-year-olds through e-mail is not going to work."</i></p>	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> </ul>	<p><i>"So, pixels are a fantastic way of tracking who is coming to your website, who is using it, and what they're doing when they</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Trust.</li> </ul>

	<ul style="list-style-type: none"> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<p><i>get there... You can't use pixels on a website that contains health information and we're really challenged by that."</i></p> <p><i>"But you know we need to respect privacy, there are whole lots of guidelines around health information and we need to respect that... We have to be Switzerland here"</i></p> <p><i>"But the biggest thing that we need to have in front of us all the time here in this particular role of privacy and confidentiality."</i></p>			
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<p><i>"So, there are some really good social media smarts that allow us to target that, so that has really improved how we engage with target audiences."</i></p> <p><i>"How we need to be able to use these channels but there are some very hard and fast rules around that Facebook has that we keep trying to get around."</i></p>	- Faster.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Smarter.</li> <li>- Faster.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>"Well look it depends who you listen to, there's a real school of thought that says we're heading back to print!"</i></p> <p><i>"Again, this isn't so much about the technology, it's around how people use channels. I think we're going to see more people blogging, more firewalls, more paid content."</i></p>	- Media Monitoring Software.	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> </ul>	<p><i>"Yeah, we'll look at anything; we really need to take the temperature of the communities we're trying to reach."</i></p> <p><i>"So, you know, maybe one of the things in the future will be giving them better tools to give us more immediate feedback."</i></p>	<ul style="list-style-type: none"> <li>- Faster.</li> <li>- Evolving.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Faster.</li> <li>- Evolving.</li> </ul>

	- Unnecessary.				
8)	- Yes or No. - Improved. - Deteriorated. - Exciting. - Anxiety. - Caution. - Unchanged. - Uncaring. - Unsure.	<i>"I think that's a very interesting thing for our profession which is, "Who do you trust?", "Where is the information coming from?". As more social media influencers are paid for their opinion and their thoughts on products and services, you know, who do you trust?"</i>	Not Applicable.	None.	- Yes. - Improved. - Deteriorated. - Exciting. - Anxiety. - Caution. - Unchanged. - Uncaring. - Unsure.
9)	Not Applicable	<i>"The big thing in this organisation, is how equity, not equality but equity, how we make sure that..."</i>	Not Applicable.	None.	- Media Ethics.

Interview Nine: Sam					
#	Category Code(s):	Example Quote:	Level of Implication:	Contradictions and Anomalies:	Category Codes Frequency:
1)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"Okay well the biggest one right now is AI, artificial intelligence is a massive thing." "So, take for example, you've got chatbots, intelligent conversational chatbots." "It kind of falls into the same place but augmented reality will probably be another massive one."</i>	Not Applicable.	None.	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Chatbots.
2)	- Virtual Reality. - Augmented Reality. - Artificial Intelligence. - Social Media. - Chatbots. - Media Monitoring Software.	<i>"So, while we haven't adopted anything into our practice it is something that we have been aware of and that we help leverage on behalf of our clients." "So, when it comes to VR... we would partner with a VR company..."</i>	Not Applicable.	None.	- Virtual Reality. - Artificial Intelligence. - Chatbots.
3)	- Efficiency. - Powerful. - Faster. - Supportive. - Trendy. - Appealing to clients	<i>"So, one of them is to stay ahead of the game... it's kind of purely a brand thing." "Or like when AI takes the monotony out of a lot of areas."</i>	Not Applicable.	None.	- Efficiency. - Powerful. - Faster. - Supportive. - Trendy. - Appealing to clients and/or consumers.

	and/or consumers.	<p><i>“Time is money, they don’t want to be waiting around on a phone call...”</i></p> <p><i>“But then virtual reality in the sense of, it might even be happening now, where you can watch concerts in virtual reality.”</i></p>			
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<p><i>“Totally, totally, I mentioned deep fakes already so you can take some from that but, the gist of it is... that there is an ethical way to go about it. So, it’s about transparency. It’s about clever ways and innovative ways of doing things without having to lie to people and without having to misdirect someone’s judgement.”</i></p>	<ul style="list-style-type: none"> <li>- Data Mining.</li> <li>- Cyber-security.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Trust.</li> </ul>
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<p><i>“They haven’t. However, like I said before, my agency is relatively traditional in the sense that we don’t operate as much in the technology space, even though we do have technology clients.”</i></p> <p><i>“But at one point I would love to have measurement platforms that are based on AI and develop insights for us.”</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Stagnation.</li> <li>- Smarter.</li> <li>- Faster.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<p><i>“And I think as a profession we get almost undervalued because of the fact that we’re unable to measure it in financial terms...”</i></p> <p><i>“An automated measurement platform is something I would love to see.”</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Media Monitoring Software.</li> </ul>
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive-Edge.</li> <li>- Trendy.</li> </ul>	<p><i>“I already said like data and being able to analyse, yes I think that’s important. I think there are ethical ways of going about it because if it’s anonymous, you’re not</i></p>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> </ul>

	<ul style="list-style-type: none"> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessary.</li> </ul>	<i>using it in a harmful way.”</i> <i>“I know that just as new things come up and are accessible, yes I will....but I won’t adopt it if it doesn’t make sense, if I’m just doing it for the novelty of it.”</i>			
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated.</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>“Not too much, I would say that it does make me think in terms of where our agency needs to be and where we need to upskill in order to not be left behind.”</i> <i>“Ethics is a massive one for me right now, I think that as a PR agency we need to be very focused on ethics because consumers in general make their buying decisions on who’s ethical and who’s not.”</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- No.</li> <li>- Unchanged.</li> <li>- Unsure.</li> </ul>
9)	Not Applicable	<i>“I just think we’re slightly behind in the PR profession.”</i> <i>“We’re doing really well here in New Zealand in terms of tech, but when it comes to technology in PR, I think there are some places where we can be a bit more innovative and adopt a few more things.”</i>	Not applicable.	None.	- Lack of Adoption.

Interview Ten: Sophie					
#	<u>Category Code(s):</u>	<u>Example Quote:</u>	<u>Level of Implication:</u>	<u>Contradictions and Anomalies:</u>	<u>Category Codes Frequency:</u>
1)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>“Yeah like recently like Siri and Alexa... Google Analytics and stuff like that.”</i> <i>“Logistics like stuff.”</i>	- Artificial Intelligence.	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Media Monitoring Software.</li> </ul>

2)	<ul style="list-style-type: none"> <li>- Virtual Reality.</li> <li>- Augmented Reality.</li> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> <li>- Media Monitoring Software.</li> </ul>	<i>"There's like this insights tool and literally you can see activity and what kind of audience you have."</i>	Not Applicable.	None.	- Media Monitoring Software.
3)	<ul style="list-style-type: none"> <li>- Efficiency.</li> <li>- Powerful.</li> <li>- Faster.</li> <li>- Supportive.</li> <li>- Trendy.</li> <li>- Appealing to clients and/or consumers.</li> </ul>	<i>"They follow data to make more of an audience. Or like attract more target audience so you get more people interest in what you're bringing to the table."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Powerful.</li> <li>- Supportive.</li> <li>- Appealing to clients and/or consumers.</li> </ul>
4)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Cyber-security.</li> <li>- Free Will.</li> <li>- Trust.</li> </ul>	<i>"You know how phones listen in to what you're doing? There should be some guideline where they say we're going to do this and will you allow us permission to do this."</i>	<ul style="list-style-type: none"> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> </ul>	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Data Mining.</li> <li>- Big Brother.</li> <li>- Selling Information.</li> <li>- Privacy.</li> <li>- Transparency.</li> <li>- Trust.</li> </ul>
5)	<ul style="list-style-type: none"> <li>- Better or Worse.</li> <li>- Improvement.</li> <li>- Stagnation.</li> <li>- Success or Failure.</li> <li>- Smarter.</li> <li>- Faster.</li> <li>- Relevant.</li> <li>- Confusion.</li> </ul>	<i>"You have to be strategic on what you're trying to come across for your target audience."</i> <i>"My brand wouldn't even exist because it's purely on social media. "</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Better.</li> <li>- Improvement.</li> <li>- Success.</li> </ul>
6)	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Social Media.</li> <li>- Chatbots.</li> </ul>	<i>"It'll more specific metrics for measurements, there could even be specific apps."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Artificial Intelligence.</li> <li>- Media Monitoring Software.</li> </ul>

	- Media Monitoring Software.				
7)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Efficient.</li> <li>- Competitive</li> <li>-Edge.</li> <li>- Trendy.</li> <li>- Faster.</li> <li>- Evolving.</li> <li>- Unhelpful.</li> <li>- Impractical.</li> <li>- Expensive.</li> <li>- Unnecessarily.</li> </ul>	<i>"Oh yeah I probably will because you always listen to the data and information to guide you to attracting more audience. Cause the more audience means the more money."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Invaluable.</li> <li>- Supportive.</li> <li>- Evolving.</li> </ul>
8)	<ul style="list-style-type: none"> <li>- Yes or No.</li> <li>- Improved.</li> <li>- Deteriorated</li> <li>- Exciting.</li> <li>- Anxiety.</li> <li>- Caution.</li> <li>- Unchanged.</li> <li>- Uncaring.</li> <li>- Unsure.</li> </ul>	<i>"They'll just push through what needs to be pushed through and do all the writing and stuff like that."</i>	Not Applicable.	None.	<ul style="list-style-type: none"> <li>- Yes.</li> <li>- Caution.</li> <li>- Unsure.</li> </ul>
9)	Not Applicable	The participant elected to make no further comments.			