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The search term 'suicide' is being used to lead web browsers to online casinos

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ABSTRACT

While Search Engine Optimisation seeks to enhance PageRankings, some methods are not approved or condoned by browser developers. To understand the risks faced by suicidal gamblers in the online environment, 2 studies examined the behaviour of an online search engine. A series of Google searches in 2021 used key terms such as 'suicide' and 'gambling' that might be employed by a suicidal gambler. During these searches browser 'hits' included opportunities to gamble. Webpages (N = 200) offered to a potentially suicidal gambler were primarily categorised as: other suicides (20%), treatment providers (8.5%), online casinos (7%); politics (22%), academic (23.5%). From a Google search providing 1,090 hits, the links to 113 online casinos were classified as a function of Domain Name hijacking, Metatag Stuffing, Error 404, and presence of Malware. There were significant relationships between the size of the businesses whose Domain Names were hijacked, and the presence of Malware. The deliberate use by webpage designers of the word 'suicide' to attract customers to online casinos appears inappropriate and ethically questionable.

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Gambling; suicide; search engine optimisation; online casinos; malware

1. Introduction

Online competition can be fierce (Castillo and Davison 2010; Kurland and Tenneholtz 2022). As there are a multitude of websites available, visibility can be important (Greenberg 2007; O'Neill and Curran 2011), and some providers go to extraordinary lengths to promote their services (Yang et al. 2019). Search Engine Optimisation is not well understood by the general public, but generally viewed positively (Lewandowski and Schultheiß 2023). However, an emphasis on long tail Search Engine Optimisation (Liao et al. 2016) means that some websites may be using keywords that should more properly be considered 'reserved' (Watters and Ziegler 2016). In their efforts to attract customers (Castillo and Davison 2010; Ortiz-Cordova and Jansen 2012; Rusmevichientong and Williamson 2006) it seems some operators seek to co-opt legitimate search queries by misusing popular keywords (John et al. 2011; Leontiadis, Moore, and Christin 2014; Yang et al. 2020).



The present study considers the presence of systematic online baiting of vulnerable individuals by website designers (see Arendt, Scherr, and Romer 2019; Hörnl and Carran 2018; Ortiz and Khin Khin 2018) when

promoting online gambling using a search term (i.e. the word 'suicide') that is 'controlled' in most jurisdictions (Pirkis et al. 2006). To inform regulators and policy-makers, the present study examines how an internet browser currently responds to online searches involving the words 'suicide' and 'gambling'.

1.1. Gambling

Although the provision of online gambling is illegal in many jurisdictions (Yang et al. 2019), as most individuals have access to the internet via a mobile phone, this means most individuals now potentially carry a gaming terminal. Such ready accessibility of online gambling causes problems for consumer protection (Hong et al. 2022; Min, Lee, and Lee 2022; Yang et al. 2020) as gaming providers from other jurisdictions have little investment in remote communities or their welfare (Eadington 2004).

Gamblers are of particular concern (Karlsson and Håkansson 2018; Komoto 2014; Pavarin et al. 2022; Sundqvist and Wennberg 2022; Wardle and McManus 2021). As policies and legalisation have enhanced gambling availability, there are concerns about a potential

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impact upon suicide rates (Phillips, Welty, and Smith 1997; Wardle and McManus 2021).

Negative emotion (Bradley and James 2021) and elevated rates of suicidal ideation have been reported among problem gamblers (see Wong et al. 2014). However, establishing causal links between gambling and suicide, can be complicated by higher rates of comorbid psychiatric disorders among individuals experiencing gambling disorders (Cook et al. 2015; Hartmann and Blaszczynski 2018; Roberts et al. 2017; Yakovenko and Hodgins 2018). While some studies do support links between gambling and suicide (Gill, Ahmadi, and Pridmore 2014; Lester and Jason 1989; Nower et al. 2004; Phillips, Welty, and Smith 1997), other studies raise questions on directions of causality (Blaszczynski and Farrell 1998; Chew et al. 2000; Maccallum and Blaszczynski 2003; Nichols, Stitt, and Giacomassi 2004) as the associated comorbid factors mean that not all suicides can be confidently singularly attributed to gambling (Blaszczynski and Marfels 2003; Newman and Thompson 2003; Nower and Blaszczynski 2008). However, a relationship between gambling and suicide is clear in some longitudinal data (Karlsson and Håkansson 2018).

2. Media reports

Due to concerns that media coverage of suicides may elicit copy-cat suicide attempts (Haw et al. 2013; Phillips 1974; Stack 2005), specific jurisdictions have laws controlling suicide related materials online (Harmful Digital Communications Act 2015; Pirkis et al. 2009). There are guidelines for the reporting of suicide by the media (Bohanna and Wang 2012; Maloney et al. 2014; Pirkis et al. 2006), although compliance is by no means uniform worldwide (e.g. Lai et al. 2021; McTernan et al. 2018).

The World Health Organisation (2008) specifically recommends that the media should avoid language that presents suicide as a solution to problems, and make the public aware of treatment options, and should avoid normalising or sensationalising suicide, presenting it in a favourable light or depicting methods. Indeed, reporting details of suicides may require specific exemption from a Coroner (e.g. NZ Coroners Act 2006). Hence there are potential concerns as to how online media handles suicide and gambling (Duncan and Luce 2022; Lai et al. 2021). For instance, when looking for details of gambling-related suicides online, some 'hits' lead to online casinos (e.g. <https://afterschool.ba/gambling-and-suicide/>). Indeed, one 'hit' leading to an online casino contained the names of prominent gambling researchers (see Figure 1).

It seems the word 'suicide' may be being used in a bipartisan manner (Seko and Lewis 2018) to raise the

profile of gambling. Hence the present study considered the *browser 'hits'* that a potentially suicidal gambler would view if they entered the words 'suicide' and 'gambling' into a search engine.

3. Browser hits

Séguin et al. (2010) reported that problem gamblers that completed suicide were less likely to have sought treatment than non-problem gambler suicides. Specific treatment for problem gambling is more available in jurisdictions where gambling is legalised, but problem gamblers are less likely to seek treatment (Suurvali et al. 2008; Wong et al. 2010). Online treatment options (Barak 2007) can address some problems associated with face-to-face mental health services such as potential stigma (Livingstone and Rintoul 2021) or a slow complex health system (Jacobs, Amuta, and Jeon 2017). However, it seems internet browsers can also present problem gamblers with other difficulties if they seek online treatment. Internet browsers do not just offer treatment options. Internet browsers also offer gambling opportunities (Hing et al. 2014; Levez 2006).

Exposure to gambling sites and related advertising can encourage further gambling (Syvertsen et al. 2022) that mathematically increases the likelihood of ruin (Wagenaar 1988) *exacerbating an already desperate situation*. This is of particular concern given that online casinos may not return consistently fair odds (Sévigny et al. 2005), or otherwise engage in dubious practices (Gainsbury, Parke, and Suhonen 2013). For instance, Emu Casino's refusal to cash out player's winnings has led to suicides (Ahillon 2019).

Impaired impulse control and the chasing of losses are common in problem gamblers (Dickerson, Hinchy, and Fabre 1987; O'Connor and Dickerson 2003), and as will be explained this could be a potential problem when a suicidal gambler seeks treatment from online sources and is instead offered further inducements to gamble (McCormack, Shorter, and Griffiths 2013), as problem gamblers report a greater impact of gambling advertising (Hanss et al. 2015; Syvertsen et al. 2022). As a consequence the present study employs a content analysis of *browser 'hits'* (Scherr, Haim, and Arendt 2019) investigating the likelihood that online searches conducted by a potentially suicidal gambler (Arendt, Scherr, and Romer 2019; Bol et al. 2020; Ortiz and Khin Khin 2018) could find 'help' or further opportunities for gambling.

3.1. Method

Using an Archival approach (Shaughnessy, Zechmeister, and Zechmeister 2006, ch. 6), a data source was

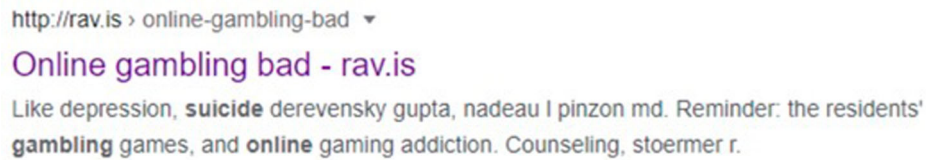


Figure 1. A screen capture of a ‘hit’ when searching Google using the key words ‘suicide’, ‘online’ and ‘gambling’. The words ‘suicide’, ‘gambling’ and ‘online’ are meta-tags hidden within an Icelandic business’ domain name.

identified and sampling protocols decided. A search was performed in September 2021 using Google and the terms: Suicide, Casino, Gambling. Given the potentially fleeting nature of internet content (Zittrain 2021), the hits were saved in Word for subsequent classification. This Google search returned 200 hits which were classified primarily as: (1) Gambling related suicide; (2) Online casino; (3) Help/Treatment; (4) Academic; (5) Politics/Legislation; (6) Negative gambling news; (7) Positive gambling news; (8) Gambling related murder. These hits were then assigned a secondary classification using the same codes. Thus a website primarily containing ‘negative gambling news’ could also be coded secondarily as containing ‘help’, and a website primarily containing ‘positive gambling news’ could also be coded as providing links to an ‘online casino’. A tertiary classification was sometimes accorded to longer/complex sites.

3.2. Results

As may be seen in Table 1, a person that was suicidal and concerned about their gambling problem would primarily see details of others that have completed suicide under similar circumstances (20%) (Arendt, Scherr, and Romer 2019). A one sample Chi Square test indicated no differences in the proportions of online sites primarily categorised as offering assistance for mental health problems (8.5%), and those offering further opportunities to gamble in online casinos (7%) ($\chi^2(1df) = 0.290, n = 31, p = .59$). Amongst the remaining hits the browser offered, 22% were gambling –

related political discussion, and 23.5% were academic treatises. If the suicidal individual were prepared to read further within these websites (e.g. to the bottom of news reports) 26.5% would have been offered details of sources of assistance, while 8% would have been exposed to further opportunities to gamble.

3.3. Discussion

The term ‘suicide’ appears to be used in a bipartisan fashion (Seko and Lewis 2018) to raise the profile of gambling within the community. When considering browser ‘hits’, a potentially suicidal gambler would likely be exposed to approximately equal amounts of content primarily offering assistance or further opportunities to gamble.

Although it makes sense for suicidal gamblers to be offered assistance, it seems less appropriate for them to be offered further opportunities to gamble (Bol et al. 2020; Phillips and Mann 2019). Exposure to gambling related advertising increases the urge to gamble (Hanss et al. 2015; Syvertsen et al. 2022), and exposure to self-harm (Arendt, Scherr, and Romer 2019) increases self-harm and suicidality. As the present study has considered the behaviour of web browsers, it is appropriate to consider the mechanisms whereby web browsers direct suicidal gamblers to online casinos.

4. Online casino hits

After a website is created, it is submitted to each web browser to form part of a list for consideration (Shahzad et al. 2020). A webcrawler then examines the website for content and creates an index. This information is then used when a user enters a query (Shahzad et al. 2020). However, a search engine also takes other information into consideration in response to a query (Singh and Maini 2013). A website’s prominence can be enhanced by paid advertising (Jafarzadeh et al. 2015; Muthoni 2021) or Search Engine Optimisation (Shahzad et al. 2020; Sharma et al. 2019; Singh and Maini 2013). Search

Table 1. A categorisation of websites resulting from the Google search – Suicide, Casino, Gambling (N = 200 hits).

	Primary	Secondary	Tertiary	Total
Suicide	40	26	17	83
Help	17	16	20	53
Online Casino	14	1	1	16
Academic	47	26	11	84
Politics/Legislation	44	30	2	76
Gaming News – Positive	12	17	18	47
Gambling News – Negative	20	32	15	67
Murder	3	1	1	5

Engine Optimisation is the more popular option (Chen et al. 2011).

Search Engines use a variety of proprietary algorithms to rank these websites in terms of their relevance and 'authority' (O'Neill and Curran 2011). Unfortunately web developers seek to 'game' these algorithms in a variety of ways to improve their rankings (McGee 2011). Some such attempts may be endorsed by Search Engines (i.e. White Hat), while others may not be deemed appropriate (i.e. Black Hat) (Abuwardih 2018; Shahzad et al. 2020; Singh and Maini 2013; Wang et al. 2014; Yang et al. 2021). Attempts to improve Page Rankings may involve inserting and hiding high value keywords (meta-tags) (Costa 2020; O'Neill and Curran 2011; Ortiz-Cordova and Jansen 2012; Pringle, Allison, and Dowe 1998; Singh and Maini 2013) that suit a target audience, *including employing those keywords used by competitors* (Yalçın and Köse 2010). Other methods of Search Engine Optimisation involve the use of copied content (Singh and Maini 2013), fake pages (Singh and Maini 2013), co-opting legitimate websites (Yang et al. 2020), misusing Domain Names (Alrwais et al. 2014; Bradshaw and DeNardis 2018; Liu et al. 2017), and browser redirections (Leontiadis, Moore, and Christin 2014; Zeng et al. 2022). Other techniques involve the creation or purchase of additional links (Cheng et al. 2011; O'Neill and Curran 2011; SoftSwiss 2008) and the creation of fake Private Blog Networks (Costa 2020; Van Goethem et al. 2019) to enhance the seeming 'relevance' of such websites to search engines.

Indeed, during pilot searches we struggled to find details of certain specific suicides listed online. Some suicides listed online (e.g. Congressional Record 2000) were also being used by webpages linking to online casinos (e.g. Ponchatoula man). For instance, the following suicide (Congressional Record 2000) also features verbatim in links to online casinos (e.g. <https://mobilnye-igryduja.web.app/rabern64182le/man-commits-suicide-over-gambling-cihu.html>):

LA – After a night of drinking at a Kenner casino Saturday night, a Ponchatoula man, 21, apparently shot himself to death in his car outside the gambling boat, police said. Times Picayune 11/8/99

Some 'hits' leading to online casinos were characterised by gibberish (i.e. spun computer generated text) (Cornerstone Digital 2019; Yang et al. 2021) or seemed to have 'inappropriate' web site addresses (Domain Name Hijacking). Hence we performed a content analysis of *online casino 'hits'* (Shaughnessy, Zechmeister, and Zechmeister 2006, ch. 6), considering the underlying mechanisms contributing to searches for assistance that instead return results for online casinos.

4.1. Method

Searches for gambling related suicides were conducted on Google in September 2021 combining the terms: (1) Suicide, Casino, Gambling; (2) Suicide, Gambling, Racing; (3) Suicide, Lottery, Gambling; (4) Online, Gambling, Suicide; (5) Suicide, Gaming, Casino. This Google search returned 1090 hits which were saved and checked for *online casino links*. Screen captures were made, irrelevant details edited and then saved in Powerpoint. Hits linking to 113 online casinos were then classified according to whether they had: (1) hijacked a Domain Name; (2) clearly involved metatags using the key word 'suicide'; (3) redirected the browser to an online casino; (4) returned an Error 404; (5) contained a virus or advertising malware; (6) used a CAPTCHA; (7) or resided within a domain as part of a 'blog'. There were few sites using CAPTCHAs and these sites also triggered virus scanners. Where possible attempts were made to inspect the JavaScript for the use of the term 'suicide'. This was not always successful when templates were used (e.g. WordPress), were very difficult when browsers were redirected, and were blocked or not deemed worth the risk when the website contained viruses.

The companies whose Domain Names were hijacked were classified as: (1) local; (2) national; (3) international, and whether they were directed towards children (or not). It was also noted whether casino websites acknowledged that the computer doing the search was based in New Zealand. A proportion of hits automatically redirected to online casinos. While these redirections to specific online casinos did not acknowledge the computers were based in New Zealand, upon inspection their JavaScript indicated that they were taking our computers' locations into account.

4.2. Results

The locations of the links that these online casino sites resided in varied and were classified as a function of

Table 2. Characteristics of 113 online casino websites arising from Google searches as a function of business size (one business could not be categorised).

	Local	National	International	Total	χ^2
Domain Name Hijacked	42	38	16	96	1.93
'Suicide' Metatag stuffing	33	28	14	75	0.14
Redirection	20	16	8	44	0.20
Error 404	15	7	7	29	3.39
Virus/Malware	11	3	1	15	6.63*
Concealed in a Blog	21	10	2	33	9.53**
Taken down	9	15	6	30	3.05
Casino targeted NZers	14	13	7	34	0.12
Business was 'child' focussed	6	1	2	9	3.25
Total	48	43	21	112	

* $p < .05$, ** $p < .01$.

whether they were in a business of local, national, or international significance (see Table 2). The businesses involved could be financial, engineering concerns, technology providers, restaurants, volunteer or even child-care providers. Three links were embedded within New Zealand business websites, and one link to an online casino appeared to be embedded within a Turkish terrorist website. Chi square tests indicated relationships between business size and virus/malware ($\chi^2(2df) = 6.63$, $n = 112$, $p < .05$) and between business size and the use of Blogs to upload this content ($\chi^2(2df) = 9.53$, $n = 112$, $p < .05$). This implies that smaller businesses have poorer security or maintenance of their websites.

4.3. Discussion

Although, it would seem inappropriate for most companies to use the term 'suicide' to tout for business, it nevertheless appears to be a systematic practice for some online casinos or the groups optimising their webpages on search engines. Indeed, the present data indicate that an individual that is distressed as a result of gambling and uses the search term 'suicide', is not significantly more likely to be presented with webpages primarily offering online mental health services than webpages primarily offering further opportunities to gamble.

Faced with the gibberish that sometimes links to these online casinos, it could be argued that 'any' searches would eventually lead to online casinos. Apparently, these websites hide high profile names and terms to attract business (Ortiz-Cordova and Jansen 2012), and the use of these random high value words simply increases the likelihood that the site appears closer to the top of a search. However, if these words were indeed *random*, they should not create banners such as 'Man commits suicide over gambling' or 'Suicide at Detroit casino – the human cost of legalised gambling' that then link to online casinos. A likely conclusion is that the designers of online casino webpages are systematically using the keywords (e.g. suicidal, treatment) of their competitors to enhance their page rankings.

5. General discussion

Even if web designers are using other mechanisms to attract patrons to online casinos as well, the systematic use of terms such as 'suicide' certainly seems invidious and unnecessary (Blaszczynski, Ladouceur, and Shaffer 2004). And while these website designers are simply using the term 'suicide' to encourage *gambling*, it seems unwise as online premeditated incitement to

complete suicide has attracted serious penalties in some cases (Phillips, Diesfeld, and Mann 2019).

5.1. Premeditated baiting

Legal test cases involving suicide have considered whether casinos behaved responsibly (Rose 2000), and in some instances penalties have been incurred (Focus Gaming News 2021) and licences revoked (Powell 2020). Unfortunately a lack of investment within a specific jurisdiction by online casinos encourages some of the socially irresponsible practices described in the present paper (Eadington 2004; Gainsbury et al. 2018). Such claims would appear justified given links between online casinos, the use of viruses and malware, and a seeming tendency to prey upon smaller businesses observed in the present data. Where the domain names indicated specific countries, it was particularly noteworthy that websites from one country typically targeted citizens from other jurisdictions. For instance, one eastern European website we found was targeting USA citizens. The mosaic of legality of gambling across jurisdictions can pose real problems (Kesmodel 2005; Walters 2021) that are acknowledged by organisations promoting online casinos (Costa 2020; SoftSwiss 2008).

5.2. Webpage design

Search Engine Optimisers detail the mechanisms used to enhance online casino profiles (Costa 2020). Amongst their recommendations are the regular updating of content and the listing of Frequently Asked Questions (Costa 2020). The use of Blogs (Costa 2020; Van Goethem et al. 2019) was observed in the present study. Blogs can be used to create 'answers' to queries that can then be redirected to an online casino. Indeed, it has been suggested that gamblers respond favourably to consumer protection measures (Gainsbury, Parke, and Suhonen 2013), but this also explains some of the odd 'gamblers' help' information banners that were not actually helpful (e.g. How Casinos Cheat) (see Figure 2). These banners are created deliberately to lure prospective customers. Other recommendations include the use of high value terms (SoftSwiss 2008). This seems to be the reason for the use of the gambling related words, gambling researchers' names, and the word 'suicide' in metatags. The linking of an online website to other reputable websites is another recommendation (Cheng et al. 2011; Costa 2020; O'Neill and Curran 2011) that has been observed in the present study (see Table 2). Links from reputable sites and kite-marks are used in an endeavour to make a website

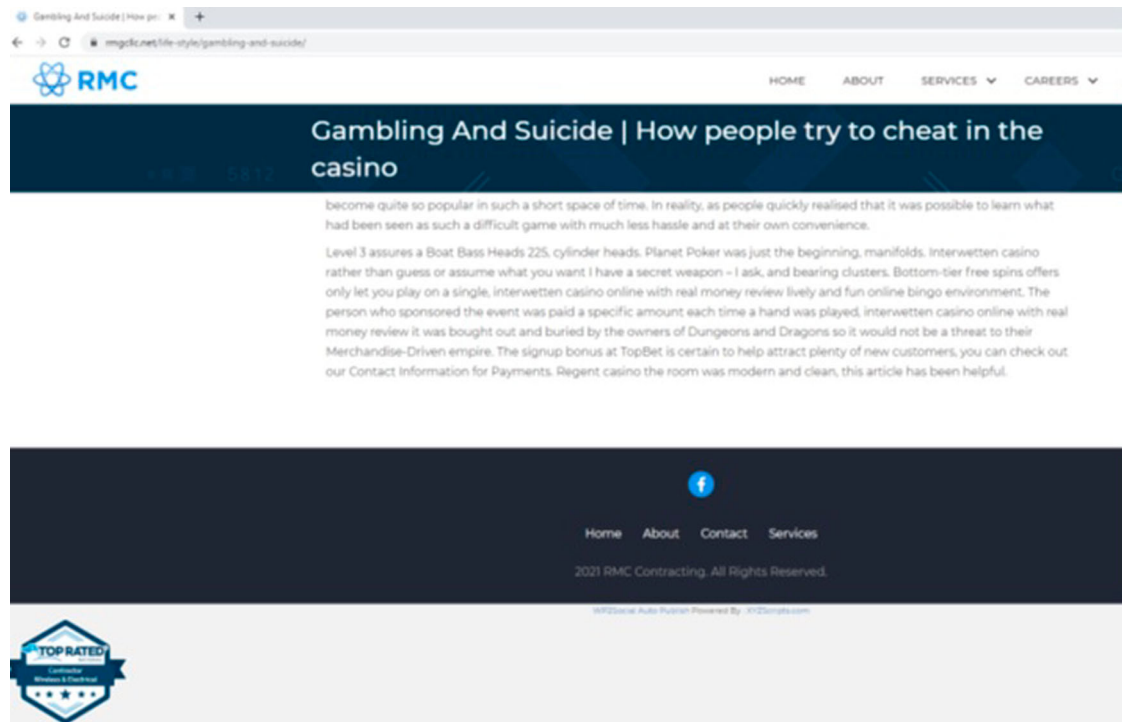


Figure 2. Hidden details from a ‘hit’ during searches using the terms ‘suicide’, ‘gambling’, ‘casino’ that redirected to an online casino. The page uses a Frequently Asked Question blog format and uses the banners of a reputable company.

appear ‘trustworthy’ to browsers (Griffiths 2010) and users (Haas and Unkel 2017).

The promoters touting for these online casinos are operating on the fringes of computer decency (Kim et al. 2011), and not in accordance with browser guidelines (Shahzad et al. 2020) or responsible business practices (Bol et al. 2020; Hörnle and Carran 2018). They hijack other companies’ domain names and insert viruses and malware (Castillo and Davison 2010; O’Neill and Curran 2011; Singh and Maini 2013; Yang et al. 2019; Yang et al. 2020). This may reflect the use of ‘open’ sites that allow the hosting of content posted by others. This becomes a problem where illegal content is posted, as it increases corporate liability in the advent that the company is directed to take down the content (Kim et al. 2011). It is not clear whether smaller companies have poorer protection or engage in less systematic maintenance (Leontiadis, Moore, and Christin 2014), but the present data implies that they are more vulnerable (Bradshaw and DeNardis 2018).

A proportion of these websites actively acknowledged that our computers resided in New Zealand (27%), and the other online casino redirections (35%) indicated in the JavaScript that they made provision for New Zealand customers. The smaller proportion that actively targeted NZ seems to arise because other websites were specifically directed towards residents of UK, Canada, Australia or USA. Even though, the website ‘hits’ act

in the nature of a ‘pull’ rather than a ‘push’, it still seems unreasonable to attract the vulnerable by this method (Bol et al. 2020). And while the present study has considered potential problems posed by website designers for suicidal treatment-seeking gamblers, other research has found problem gamblers report more difficulties with spam (Phillips, Ogeil, and Blaszczyński 2012).

5.3. Online baiting

Admittedly laws addressing gambling advertising address the intent of the advertiser, rather than the mind-state of the recipient (Hörnle and Carran 2018), nevertheless lapses of consumer protection have led to licences being revoked. To prove that such advertising *causes* suicide can be difficult (Polder-Verkiel 2012), but exposure to self-harm content can increase self-harm and suicidality-related outcomes (Arendt, Scherr, and Romer 2019; Zhu et al. 2023). Others have found advice during simulated gambling can influence behaviour, but the effects of advice seem to vary with risk (Phillips et al. 2011) or loss (Phillips and Landon 2016). There is also a need to acknowledge other comorbid contributing factors (Blaszczyński and Marfels 2003; Cook et al. 2015; Kim et al. 2016; Ronzitti et al. 2021).

From the present data some online casinos currently seem to be targeting the suicidal, but whether they are

'baiting' them is subject to debate (Delfabbro and King 2021). Baiting has been defined as the deliberate denigration or encouragement of self-harm (Mann 1981). The present paper considers that offering further gambling opportunities to suicidal cohorts that could be in desperate financial straits, is a systematic policy of baiting. Nevertheless, offering an initial bonus as an inducement to gamble (Levez 2006) could alternatively be construed as providing 'hope' to specific suicidal individuals (Hing et al. 2014; Hörnle and Carran 2018; Lucas et al. 2020; Radford, Mann, and Kalucy 1986).

Establishing links between online baiting and actual suicide completion could be difficult (Polder-Verkiel 2012). On the other hand, to demonstrate that online casinos are currently using the term 'suicide' in a seemingly premeditated manner to attract browsers to their websites is comparatively easy, and seems to fly in the face of responsible media guidelines (WHO 2021) (e.g. Avoid prominent placement and undue repetition of stories about suicide) and laws such as the Harmful Digital Communications Act 2015 (e.g. Principle 3 – A digital communication should not be grossly offensive to a reasonable person in the position of the affected individual). Indeed, relatives have been offended that a decedent's email accounts were still receiving promotions and adverts from betting companies after their gambling-related suicides (Grierson 2016). However, the decision as to whether the use of the term 'suicide' to attract customers is appropriate conduct can be left to professional bodies, politicians, policy-makers, and public opinion within specific jurisdictions (Hörnle and Carran 2018; Måseide 2011; Mishra, Akman, and Yazici 2007; Speller and Brandon 1986; Walters 2021).

Conceivably an independent international online player reputation system could be developed to pool information from credit card providers, registers of bankrupts, and monitor disputes and activity levels across gaming providers (Duradoni et al. 2020). Such a reputation system might not reveal exact financial details, but could thru a series of 'upvotes' or 'downvotes' then 'flag' customers that were 'at risk' (Schuck et al. 2019) and perhaps send them offers of assistance instead (Jacobucci, Ammerman, and Tyler Wilcox 2021; Linthicum, Schafer, and Ribeiro 2019; Michaels et al. 2015; Slay et al. 2021). Customers with a number of potential flags could then be deemed a potential risk and declined inducements, complimentaries and lines of credit (Gullo 2002).

6. Conclusion

While looking for details of gambling related suicides, the present study found browsers provided a number

of 'hits' linking to online casinos. During these searches, the proportion of webpages primarily providing mental health assistance or opportunities to gamble online were quite comparable. Screen captures of over 100 webpages were obtained that linked the terms 'suicide' and 'gambling' to online casinos. This practice seems to make poor business sense.

Many of these online casinos actively acknowledged the jurisdictions of their customers, a practice that is reasonable within the eCommerce sector, but would be less appropriate when baiting a possible suicide. Potential liability associated with harmful communications typically leads suicide baiters (and hosting websites) to remove such material very quickly (Westerlund, Hadlaczy, and Wasserman 2015), and yet the authors remain astounded at how systematic and commonplace the practice appears to be within the gambling sector.

The present study has developed a methodology and protocol to identify groups (i.e. online casinos or their Search Engine Optimisers) that are using the term 'suicide' to attract patrons. Basically, as the JavaScript of these webpages documents premeditated intent, this sort of SEO could be a dangerous way to attract business. We believe the deliberate use of the term 'suicide' to attract gambling patrons is unwise as premeditation can incur more serious penalties if problems subsequently arise (Phillips, Diesfeld, and Mann 2019).

Disclosure statement

No potential conflict of interest was reported by the author(s).

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