Impacts of Sensationalised Media Articles on

Internet-Specific Parental Self-Efficacy

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This Thesis is entirely my own work, and has not been previously submitted to this or any other third level institution.

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Abstract

Informed by research linking high levels of parental self-efficacy to positive parenting practices, and acknowledging scholarly concerns on 'moral panics', this paper extends studies on Internet-Specific Parental Self-Efficacy (IS-PSE) in examining whether sensationalised media reporting might contribute to decreases in self-efficacy in the context of parenting in a digital environment. Using a purposive sample of parents of primary school children in Ireland (N = 210), participants were exposed to either a sensationalised or a balanced media article, observing changes in IS-PSE scores. Although to varying extents, the results of this research provide some support for concerns regarding the impact of sensationalised reporting on IS-PSE, with findings identifying those most likely impacted. In doing so, the study also quantifies the positive impact of the provision of balanced information on levels of IS-PSE. Informed by this current study, opportunities for continued research are considered.

1. Introduction

Given the increasing role that digital technologies play in leisure, social, and educational activities, the growing necessity for parents to ensure that children acquire "the range of skills, knowledge and understanding necessary to navigate the knowledge economy of the 21st century" (Marsh, Hannon, Lewis, & Ritchie, 2017, p. 48), is widely accepted within digital mediation literature. With 68% of children in Ireland aged eight to 13 years owning their own smartphone, and 70% using social media (CybersafeIreland, 2018), facilitating and positively affecting children's digital interactions has become a necessary input to general parenting objectives. Terms such as 'Digital parenting', Parental mediation', or 'Digital mediation' have come to describe "the diverse practices through which parents try to manage and regulate their children's experiences with technologies" (Chaudron, Di Gioia, & Gemo, 2018, p. 46). While many iterations of digital mediation categories have been proposed since the earliest parental mediation research on television and early video games; the recent categorization of 'enabling' or 'restrictive' (Livingstone et al., 2017) is employed in this study.

Research indicates that parenting practices are impacted by levels of Parental Self-Efficacy (PSE) (Bandura, 1977, 1986; Coleman & Karraker, 1998; Jones & Prinz, 2005); with the construct described as a "strong predictor of parenting functioning" (Wittkowski, Garrett, Calam, & Weisberg, 2017, p. 2973). Higher levels of PSE have been shown to be strongly correlated with positive parenting approaches (Wittkowski et al., 2017), and while efficacy and *outcome* expectations represent different constructs (Glatz & Trifan, 2019), it is nonetheless argued that PSE has "an indirect effect, via parenting behaviors, on behavioural outcomes in children" (p. 2). It is with ultimate concern for these outcomes that the role of sensationalised media reporting on *Internet-Specific* PSE (IS-PSE) is considered here.

Internet-Specific PSE, as a domain-specific extension of PSE, has been proposed as a construct to account for the unique factors and contexts which accompany the demands of 'internet-specific' parenting: from maximising the benefits of the many

educational, personal, and social opportunities, to an informed and proportionate response to perceived risks; which undoubtedly exist. The role of sensationalised media reporting comes into context exactly here: any such risks posed by technology, while certainly impactful in individual cases, represent neither the inevitable harms, nor exist at the 'epidemic' proportions that sensationalised reporting might have parents believe. While one "cannot assume that everyone is affected the same way by the messages to which they are exposed in the media" (Berger, 2016, p. 95), a situation where "the mass media jump to the conclusion that technology is inherently harmful, often exaggerating the size of the effect or inappropriately inferring causation from correlational findings" (Livingstone & Franklin, 2018 p. 435); may result in decreases in IS-PSE for some parents, with a potentially negative impact on their effectiveness in implementing their choice of digital parenting approach.

The specific research focus of this paper was triggered by the widespread sharing of an article (see Appendix A) entitled "Have smartphones destroyed a generation?" (Twenge, 2017b). Appearing originally in 'The Atlantic' online magazine (www.theatlantic.com) before making its way onto the newsfeeds of parents globally; reactions to this piece presented IS-PSE concerns in sharp focus.

Alongside scholarly references to moral panic suggesting that sensationalised reporting is disproportionately stoking public concerns and anxieties on technology (Carvalho, Francisco, & Relvas, 2015; Finkelhor, 2014; Gaplin & Taylor, 2017; Katevas, Arapakis, & Pielot, 2018; Kehily, 2010; Klemm, Hartmann, & Das, 2019; Livingstone, Mascheroni, & Staksrud, 2018; Sonck, Nikken, & de Haan, 2013); examining the possibility that sensationalised media might impact IS-PSE seems both merited and timely. While media, cultural, and communication studies have focused on the role of sensationalised reporting in areas such as healthcare, politics, and environmental issues for example (Brashers, 2001; Jensen, Pokharel, Scherr, King, Brown, & Jones, 2017); to the best of this researcher's knowledge, no research on the impact of sensationalised reporting on IS-PSE (nor PSE more generally) has been published to date.

2. Literature Review

2.1. Sensationalised Media Reporting

'Sensationalised reporting', for the purposes of this current study, refers to text-based headlines and articles, in print or online media, communicating findings and opinions on technology-related topics. This paper explicitly focuses on 'discourse-based' sensationalism - on the overall impact of the article as a whole, rather than from the perspective of a systematic linguistic analysis. Highlighted directly by Sonck et al., (2013) amongst others, the specific concern examined is that sensationalised reporting can:

> amplify moral panic in parents by reporting mainly ad hoc incidents linked to online risks [e.g. pornography, cyberbullying, grooming]. Such media reports might influence parental attitudes towards the internet and increase their worries, including concerns about their personal lack of skills to cope with risks. (p. 97).

In the sensationalised reporting of research findings as well as anecdotal incidents, the emotional and hyperbolised language used to present technology in harm-related frames serves to create 'labels' which "embed a judgement about whether an activity [e.g. making a new online contact] is an opportunity ['a new friend'] or a risk [a potential abuser]" (Livingstone et al., 2018, p. 1116). In creating this type of labelling, sensationalised reporting's representation of a topic helps to define that topic in itself; with 'problematic' use frequently presented as the norm rather than as the exception.

Resulting moral panic translates into findings which show that the concerns which worry Irish parents the most, are those which "pose a direct threat to the child, e.g. cyberbullying and online grooming"; despite findings that "actual incidence has been found in other research to be rare" (Webwise, 2017, p.15). Of ultimate concern is that statistically unsubstantiated levels of worry may cause parents to make ill-informed, reactive, and often restrictive decisions related to their children's use of technology; not least including decisions which might deflect from examining alternative causes of concern.

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2.2. Moral Panic Theory

The concept of moral panic can be described as "a disproportionate social reaction to a given threat or behaviour" (Hamilton, 2005, p. 8). A significantly debated theory in its own right, its roots lie in Cohen's (1972) exploration of confrontations between Mods and Rockers in mid-1960's UK. Despite varying perspectives on the concept (Goode & Ben-Yehuda, 1994; Hunt, 1997; McRobbie & Thornton, 1995), references to moral panics continue to attach themselves to political, legal, antisocial, and health events reported in the media, as they have done for decades. For the most part, the term continues to describe concerns regarding "exaggeration and distortion, prediction, and symbolization" as aspects of mass-media reporting. (Rowe, 2009, p. 25). In contrast to Cohen's (2011) contention that periods of moral panic recur 'every now and then' (p. 9), the persistence of dramatized headlines concerning 'screen time' (Livingstone, 2019); gaming (Ferguson, 2019); and 'addiction' (Kardefelt-Winther et al., 2017) serve as clear examples of moral panic in current media coverage; and support the position of McRobbie and Thornton (1995), that moral panic has become a norm of communication:

> Moral panics have become the way in which daily events are brought to the attention of the public. They are a standard response, a familiar, sometimes weary, even ridiculous rhetoric rather than an exceptional emergency intervention […] used by media to make home and social affairs newsworthy. (p. 560)

Within the research community, references to concerns on moral panics in digital media literature have directly contributed to the core rationale behind this study (Carvalho et al., 2015; Katevas et al., 2018; Kehily, 2010; Klemm et al., 2019; Livingstone et al., 2018; Sonck et al., 2013). However, emerging research relating to scientific publication more generally (Przybylski & Weinstein, 2017, 2019; Orben & Przybylski, 2019a; Katevas et al., 2018; Panova & Carbonell, 2018; Rozgonjuk, Levine, Hall, & Elhai, 2018) has very recently added to considerations here. Recent studies have indicated for example that correlations linking screen-based activities to negative outcomes such as depression or addiction are statistically not as statistically

significant as other studies might suggest (Twenge, Joiner, Rogers, & Martin, 2018; Twenge & Campbell, 2018; Twenge, 2017a; Wiederhold, 2018). With findings that "many studies show only small or null effects once proper control variables are used" (Przybylski, Orben, & Weinstein, 2019), a number of distinct areas of research appear to have been heavily impacted in this manner: with areas like the 'screen-time' debate (Palmer et al., 2016; Etchells et al., 2017; AAP, 2016; Blum-Ross & Livingstone, 2018), and video gaming (Ferguson, 2017; Nielsen & Kardefelt-Winther, 2018) as examples prominent within both scientific and mass-media reporting.

2.3. Cognitive Processing of Sensationalised Media

The cognitive processing of sensationalised information may predict some of the variations in levels of IS-PSE being measured in this experiment, as according to Valkenburg, Peter, and Walther (2016), "the way in which individuals process media forms the route to media effects" (p. 324). This suggests that amongst other theories, the Elaboration Likelihood Model (ELM), in analysing levels of involvement in message processing, may explain certain behaviours. Individual choices for central or peripheral route processing may affect whether readers might be prone to "selectively processing particular aspects of a message, while ignoring others". (Konijn, 2013, p. 194), and while most people have a natural tendency towards either low or high need for cognition, switching routes is also common, typically dependent on levels of personal involvement as well as prior knowledge on the topic. Sensationalised (mis)-information related to digital mediation may very well prove to be an issue for those applying low levels of elaboration to the material, more likely to reach a conclusion based on a 'superficial analysis' of the information provided. (Cacioppo & Petty, 1984, p. 673).

2.4. Risk Perception

Concerns that heightened risk perceptions can decrease self-efficacy are directly relevant, given research indicating that emotional language and negative messaging typically lead to increased perceptions of risk (Wahlberg & Sjöberg, 2000; Klemm et al., 2019). Findings are not as yet comprehensive, however, as Livingstone et al. (2017) observe that while parental mediation is 'commonly hypothesized' to be associated with parents' perception of risk, "to our knowledge this has not been examined in relation to parental mediation of the Internet" (p. 85). In the absence of findings specific to digital mediation, this paper nonetheless includes the consideration of risk perception on the basis of its direct links to sensationalised media reporting.

2.5. Digital Mediation

An understanding of digital mediation is fundamental to appreciating the importance of the maintenance of high levels of IS-PSE. A huge body of research on parental or digital mediation exists, with evidence of both alignment, as well as 'expert dichotomy' across the field (Marsh, Downs, & Cranor, 2017). While scope does not allow for a full review here, the most current research by Livingstone et al., (2017) has combined a number of historical digital mediation categories such as active mediation, child-initiated support, technical controls, parental monitoring and so on, to form two encompassing mediation strategies: 'enabling' and 'restrictive'.

Restrictive approaches, while successful in managing risk, nonetheless prompt considerable agreement that they may serve as particularly short-term solutions, with children growing in independence and readily finding workarounds to monitoring-based approaches (Livingstone & Bober, 2004; Naab, 2018; Shin & Huh, 2011). Such strategies can cause potential harm to parent-child trust and communication, may exclude children from peer-group activities, and are considered to be unsuccessful in fostering self-resilience and critical thinking in children (Livingstone et al., 2017; Symons, Ponnet, Walrave, & Heirman, 2017). There are nonetheless numerous advocates of restrictive mediation - particularly those reporting on negative correlations between social media and mental wellbeing - see Shakya & Christakis, 2017; Ward, Duke, Gneezy, & Bos, 2017; Twenge et al., 2018, as recent examples.

Restrictive digital mediation approaches fit into the broader context of this study in that restrictive practices may be indirectly encouraged by sensationalised media reporting; which, in increasing anxiety and confusion, amplify concerns: "anxious parents feel their only recourse is to protect their children by limiting their access" (Livingstone & Byrne, 2017). 'Enabling' approaches on the other hand, facilitate positive digital participation in promoting resilience and self-regulation, focusing on socialisation as well as the maintenance of parent-child trust and communication channels (Livingstone et al., 2017; O'Neill & Dinh, 2015; Sorbring, 2014). In accepting a certain amount of risk, enabling digital mediation practices are believed to help foster the child's coping mechanisms.

Known factors impacting digital mediation approaches include parental "skills, knowledge, attitudes and perceptions towards digital technologies" (Chaudron et al., 2018, p. 13); many of which are in turn influenced by socio-economic factors including education levels. Education levels might be considered with caution however, with Livingstone et al. (2017) noting that in the context of digital mediation, "parental education makes little difference […] nor is parental education […] or parental age […] correlated with parents' digital skills, belying the assumption that more educated and/or younger parents are more digitally skilled" (p. 93). Practices are further known to be changeable across situational demands, age, gender, time, and family structure (Chaudron et al., 2018; Symons et al., 2017; Sorbring, 2014; Sonck et al., 2013).

2.6. Internet-Specific Parental Self-Efficacy (IS-PSE)

In adding to the above inputs, a number of recent studies have begun to examine parental self-efficacy (PSE) specifically in terms of digital mediation: (Shin, 2015; Shin & Li, 2017; Symons et al., 2017; Glatz, Crowe, & Buchanan, 2018). Glatz et al. (2018), have endeavoured to illustrate how "PSE specific to the Internet domain, rather than general PSE, is a significant predictor of various Internet-specific mediation practices" (p. 15). In proposing that "parents' perceptions about their ability to influence their children's Internet use" is likely to have a "direct impact" on parental mediation approaches (p. 16), and observing that "certain monitoring practices seem to be specific to the Internet domain" (Glatz et al., 2018, p. 9), the IS-PSE construct measures parental confidence in the parent's own competency to address their children's digital participation. In this way, the IS-PSE construct should facilitate the measurement of the impact of sensationalised media reporting on the very parents at whom such articles are frequently targeted. As many 'parenting programmes' attempt to increase levels of PSE (Wittowski, Dowling, & Smith, 2016), it follows that IS-PSE is similarly open to parenting interventions, and it is in this context, that identifying the impact of sensationalised media is pursued. The position of this particular study in the context of the broader 'digital mediation' field is illustrated at Appendix B.

2.7. This Study

Focusing on the impact of sensationalised media, this research explores how such articles might be expected to overwhelm those already lower in self-efficacy, informing them that they will be unsuccessful in their attempts at digital mediation (Wittkowski et al., 2017). As a first attempt to extend understanding of IS-PSE in this context, the study aims to determine whether any impact of sensationalised media might apply equally to all parents, or whether mediating factors may exist which intensify the impact for some rather than for others. In this way, it may be possible to identify the parents who are either most vulnerable, or most resilient to being negatively influenced by sensationalised reporting.

2.8. Research Questions and Hypotheses

The following research questions and hypotheses are formulated:

RQ$_1$:   Are levels of Internet-Specific Parental Self-Efficacy (IS-PSE) impacted by exposure to sensationalised media reporting?

H$_1$:   That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1

H$_2$:   That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1

H$_3$:   That exposure to sensationalized media will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1

To add depth to findings resulting from the above hypotheses, the study also explores whether patterns observed above are specific to the consumption of sensationalised media only, by examining changes in IS-PSE scores in reaction to exposure to balanced material. In facilitating this, the following are also addressed:

RQ$_2$:   Are levels of Internet-Specific Parental Self-Efficacy (IS-PSE) impacted by exposure to balanced media reporting?

H$_4$:   That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1

H$_5$:   That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1

H$_6$:   That exposure to balanced media articles will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1

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3. Methodology

3.1. Design

This paper presents a quantitative analysis of a repeated measures, between-groups experiment with participants randomly assigned to one of two independent variable conditions, reading either a balanced or a sensationalised article.

3.2. Participants

An online questionnaire was completed by two hundred and ten participants (*N*=210); the sole criteria being that they were parents of at least one child attending a primary school in Ireland. The majority of participants were female (*n*=182) with 56% aged between 35-44, 41% aged between 45-54, and 3% aged between 25-34. Participants represented seven different primary school sub-types, with 22% attending fee-paying schools, 78% attending state schools, and 6.6% of the participant group attending a DEIS school (serving disadvantaged communities – see Appendix C).

3.3. Materials

Google forms was used to create an online questionnaire (see Appendix D). Stimulus materials were parent-facing articles retrieved from the public domain, retained in their original text (see Appendices E and F). The 'sensationalised' article met this current paper's operational definition of sensationalised reporting in that it is a highly emotive article, criticising technology as a direct cause of health and wellbeing concerns. In terms of accessibility, it was published on an Irish 'parenting' website (www.familyfriendlyhq.ie); and in terms of credibility (Gist & Mitchell, 1992, p. 194) was authored by "a psychologist, psychotherapist & clinical supervisor in private practice". The 'balanced' article met comparable criteria in serving as an accessible, parent-facing article, published on an independent and highly respected website focused on children's media and technological interactions. The article itself reflects a positive approach to digital parenting, without advocating the adoption of any particular technology or device which might have polarised reader reactions. SPSS version 25 was used for all statistical data.

A pilot test was completed to ensure that questions were understood by respondents, to test timings, and to confirm that the stimulus articles rendered adequately in online format across devices. A number of changes were made as a result pilot feedback: wording changes, as well as changes to instructions to facilitate users on small-screened devices.

3.4. Measures

The impact of sensationalised media reporting on participants was measured using the IS-PSE scale (Glatz et al., 2018) as a repeated measure. The scale (see Appendix G) is comprised of ten questions: eight enquiring "how confident" parents felt "in their abilities to prevent their child from…" a number of issues, ranging from "coming in contact with inaccurate information", to "being bullied". These eight questions were answered using a five-level Likert scale that ranged from 1 (*not confident*) to 5 (*extremely confident*). A further two questions asking "how much can you do to influence ... the time the child spends on the internet?" and 'influence …what the child is doing on the internet?" were answered using a five-level Likert scale that ranged from 1 (*nothing*) to 5 (*a great deal*). The scale has high reliability with Cronbach's alpha of 0.89 (Glatz, personal communication, 28 Feb 2019). IS-PSE scores are created by summing the ten items with a minimum score of 10 and a maximum of 50. A tertile split was introduced by this study to categorise IS-PSE scores into groupings of low (10-23), average (24-37) and high (38-50).

Data on news-consumption was sought: parents were asked to report their "main source of general news" along with a self-report of their levels of "news consumption" (from *extremely low* to *extremely high*). Additional questions were asked to help evaluate the extent to which parents felt well-informed on digital parenting issues. Asked to indicate the extent to which they seek digital parenting support, with responses ranging from *never* to f*requently*, parents were also asked to identify the source of that support. Finally, in this section, parents were asked to describe the "levels of information that you feel you currently have, on digital parenting topics" with response options ranging from *extremely low* to *very high*.

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3.5. Procedure

Two versions of the questionnaire were prepared, one version directing the participant to the 'sensationalised_article' condition, with the other to the 'balanced_article' condition. Employing purposive sampling, links to the questionnaires were distributed to parental and school contacts using a variety of channels: email, WhatsApp, via publication on the researcher's Facebook page, as well as on www.webwise.ie and www.schooldays.ie. Approximately five hundred parents were invited to participate. The online questionnaires remained open for three weeks, resulting in 210 participants being recruited, with 103 respondents in the balanced article condition, and 107 in the sensationalised.

3.6. Ethics

This research received ethical approval from the DTP Ethics Committee (Appendix H). By way of debrief, a list of balanced websites promoting safe and positive use of online technologies and devices was provided at the end of the questionnaire (Appendix D).

4. Results

4.1. Descriptive Statistics

Using primary school type as an indicator of socio-economic status, results are widely spread. (see Fig. 1). Parental education levels were particularly high, with 91% of respondents reporting third level education qualifications, compared with national figures of 51% (Central Statistics Office, 2016b). The geographic weighting of the sample (77% urban) may partially explain the high rates of third level education reported by parents in the present study.
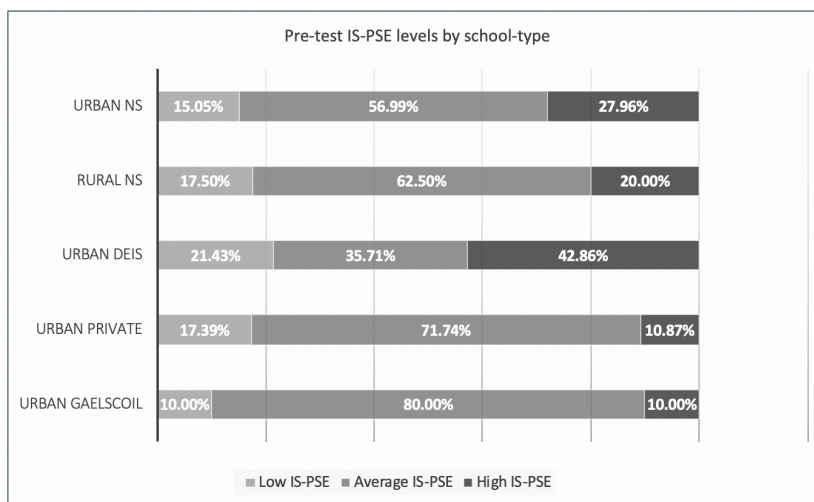
Figure 1. Concentrations of IS-PSE at time 1 per school-type. Schools representing > 5 participants depicted

Pre-test IS-PSE scores facilitated the division of the sample into three categories: 'Low IS-PSE' (10-23), 'Average IS-PSE' (24–37) and 'High IS-PSE' (38-50). Pre-test scores for the entire sample (N = 210, M = 31.93, SD = 7.61) had a high Cronbach's alpha of 0.909. The majority of participants (n=128) fell into the 'Average' IS-PSE category (Table 1).

Table 1

IS-PSE Group Details. Low/Average/High Groupings. Participant Total: N = 210

	Low IS-PSE (Range 10-23)	Average IS-PSE (Range 24-37)	High IS-PSE (Range 38-50)	Totals
No. of respondents	33 (15.7%)	128 (60.9%)	49 (23.3%)	210
Balanced_article	15 (14%)	66 (61.6%)	26 (24.2%)	107
Sensationalised_article	18 (17.4%)	62 (60.1%)	23 (22.3%)	103

4.2. Inferential Statistics

Results indicate that some, but not all groups experienced a significant change in IS-PSE levels following exposure to either article type. Results are summarised in Table 2 where data is represented at both IS-PSE group, and full sample level; per-condition.

Table 2

Mean, Standard Deviation, and Significance Levels, per Group, by Article-type

Condition		Time 1		Time 2		df	Sig. (2-tailed)
		M	*SD*	*M*	*SD*		
Sensationalised_article	Low IS-PSE	20.27	2.13	22.16	3.14	17	.018*
	Avg IS-PSE	30.93	3.55	30.37	5.04	61	.200
	High IS-PSE	42.26	3.68	40.69	6.51	22	.186
Total sensationalised sample (*n*=103)		31.60	7.70	31.24	7.82	102	.370
Balanced_article	Low IS-PSE	19.86	3.54	23.46	5.46	14	.006*
	Avg IS-PSE	31.45	3.93	32.89	4.38	65	.004*
	High IS-PSE	41.46	3.52	42.34	4.70	25	.095
Total balanced sample (*n*=107)		32.26	7.54	33.86	7.38	106	.000*

Note. * = p <.05

A paired-samples t-test was conducted in SPSS to evaluate the impact of the exposure to the independent variable on participants' IS-PSE scores. There was a statistically significant increase in IS-PSE scores from time 1 (*M* = 31.93, *SD* = 7.61) to time 2 (*M* = 32.58, *SD* = 7.69); $t(209) = -2.32$, $p < .021$ (two-tailed).

A further paired samples t-test was conducted to compare changes in IS-PSE scores for those reading the balanced article. There was a significant difference in IS-PSE scores in the balanced_article condition from time 1 (*M* = 3.26, *SD* = 7.54) to time 2 (*M* = 33.87, *SD* = 7.38); $t(106) = -4.43$, $p < 0.01$ (two-tailed). These statistics indicate that IS-PSE scores were higher overall at time 2 than at time 1, when filtering for exposure to the balanced article.

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A third paired-samples t-test was conducted to compare changes in IS-PSE scores for the sensationalised_article condition from time 1 to time 2. There was no significant difference in scores from time 1 to time 2 across the full participant sample (*n* = 103) exposed to the sensationalised article.

The above results combine to provide support for this study's research questions and hypotheses at varying levels:

RQ₁: *Are levels of Internet-Specific Parental Self-Efficacy (IS-PSE) impacted by exposure to sensationalised media reporting?* There are mixed findings for RQ₁: Firstly, as a full group (*n*=103), participants in the sensationalised_article condition were not significantly impacted by reading the sensationalised article. Within this finding however, (see Table 2), results at group level indicate significant findings (an increase) for the low IS-PSE group; with the average and high groups reporting no significant changes.

RQ₂: *Are levels of Internet-Specific Parental Self-Efficacy (IS-PSE) impacted by exposure to balanced media reporting?* In addressing research question 2, the findings indicate that the levels of IS-PSE are significantly different at time 1 and time 2 for the full sample (*n* = 107) in the balanced_article condition.

The following hypotheses are reported with a view to determining article impact on a per-group basis: (See table 3 for summary)

H₁: That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1: This hypothesis is not supported; rather than a decrease, there was a statistically significant increase in IS-PSE scores for the low IS-PSE group in the sensationalised article condition, from time 1 (M = 20.27, SD = 2.13) to time 2 (M = 22.16, SD = 3.14); t(17) = -2.61, p < .018 (two-tailed).

H₂: That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1: This hypothesis is not supported, as there were no significant changes in IS-PSE for the average IS-PSE group in the sensationalised article condition from time 1 to time 2.

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H₃: That exposure to sensationalized media will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1: This hypothesis is supported, as there were no significant changes for the high IS-PSE group in the sensationalised article condition between time 1 and time 2.

H₄: That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1: This hypothesis is supported as there was a statistically significant increase in IS-PSE scores for the low IS-PSE group in the balanced article condition, from time 1 (M =19.86, SD =3.54) to time 2 (M =23.46, SD = 5.46); $t(14) = -3.250$, $p < .006$ (two-tailed).

H₅: That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1: This hypothesis is supported as there was a statistically significant increase in IS-PSE scores for the average IS-PSE group in the balanced article condition, from time 1 (M =31.45, SD =3.93) to time 2 (M =32.89, SD = 4.38); $t(65) = -2.99$, $p < .004$ (two-tailed).

H₆: That exposure to balanced media articles will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1: This hypothesis is supported, as there were no significant changes for the high IS-PSE group in the balanced article condition between time 1 and time 2.

Table 3

Hypotheses and Results

Hypothesis		Result
H_1:	That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1	Unsupported: Significant increase (p < .018)
H_2:	That exposure to sensationalised media articles will result in decreases in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1	Unsupported: No Change
H_3:	That exposure to sensationalized media will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1	Supported: No change
H_4:	That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting low levels of IS-PSE at time 1	Supported: Significant increase (p < .006)
H_5:	That exposure to balanced media articles will result in changes in IS-PSE scores from time 1 to time 2 amongst those reporting average levels of IS-PSE at time 1	Supported: Significant increase (p < .004)
H_6:	That exposure to balanced media articles will result in unchanged IS-PSE scores from time 1 to time 2 amongst those already high in IS-PSE at time 1	Supported: No change

Note. * = p <.05

Having established or rejected support for each of the above hypotheses in turn, the next step was to compare changes in scores across the groups (groups being differentiated by low, average or high IS-PSE level plus one of two possible article conditions). For each participant a change score was calculated by subtracting time 1 scores from time 2 scores, and then average change scores were computed for each group. Two ANOVAs were conducted (one for the three groups exposed to the sensationalised article, one for the three groups exposed to the balanced article). Post-hoc tests were conducted where significant differences were found.

The first one way between-groups ANOVA was conducted in order to compare change scores among the three groups exposed to the balanced article. No significant differences emerged.

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A further one way between-groups ANOVA was conducted in order to compare the impact of the sensationalised article among the three groups exposed to the sensationalised article. This ANOVA returned significant results, and Tukey post-hoc tests were conducted to determine where the differences lay. There was a statistically significant difference at the $p < .05$ level between the low IS-PSE and high IS-PSE groups: $F(2,100) = 4.1$, $p = .019$. Post-hoc comparisons, using the Tukey HSD test indicated that the mean change score for the low IS-PSE group ($M = 1.89$, $SD = 3.066$) was a significantly higher mean change in score than the change score of the high IS-PSE group ($M = 1.57$, $SD = 5.501$).

5. Discussion

In addressing this study's research questions, findings indicate that levels of IS-PSE are somewhat impacted by exposure to sensationalised media articles, but less distinctly than theory might suggest. The average and high IS-PSE groups were statistically unaffected by exposure to sensationalised reporting; while those in the lowest IS-PSE group reported increased IS-PSE; contrary to expectations of negative impacts prompted by increased risk perception and uncertainty (Wahlberg & Sjöberg, 2000; Klemm et al., 2019).

Firstly, for H_1 *(that the low IS-PSE group, in the sensationalised media condition, will report decreases in IS-PSE)* - as indeed for all hypotheses in the study - it must be considered that participants were exposed to one article only, while exposure to multiple articles may have produced different results.

Further considering H_1, and in conjunction with H_4 *(that the low IS-PSE group, in the balanced media condition, will report changes in IS-PSE);* in a finding unique to only low IS-PSE participants, *both* the balanced *and* the sensationalised article conditions were positively associated with increases in IS-PSE levels. That is: regardless of article-type, IS-PSE scores for the low IS-PSE group increased at time 2. Self-efficacy theory may offer some insight into findings here, in arguing that levels of information are key to the maintenance of self-efficacy (Gist & Mitchell, 1992). As the introduction of *either* article appears to be linked to an increase in IS-PSE levels, the observation that "information does not need to be 'correct' to reduce uncertainty" (Brashers, 2001, p. 483) may explain why low IS-PSE readers might have interpreted the 'information' in either article positively. An adoption of 'peripheral route' processing fundamental to the Elaboration Likelihood Model (Petty & Cacioppo, 1986), with the employment of heuristic shortcuts to speed up information evaluation and decision-making, suggests that some participants may have approached the stimulus articles with the 'superficial analysis' referenced earlier in this study (Cacioppo & Petty, 1984, p. 673). It should also be considered that switching between central and peripheral route processing is common, and a switch to peripheral processing may be specific, in some participants, to articles of this nature, governed by their personal levels of

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involvement (Valkenburg et al., 2016; Konijn, 2013). The concern here would be that although an increase in IS-PSE may be observed, that due to a lack of depth in the processing of that information, any impact could be short-lived (Petty & Cacioppo, 1986), and not represent an effective, genuine increase in self-efficacy (Gist & Mitchell, 1992).

At H_2, where the exposure of the average IS-PSE group to the sensationalised media condition did *not* result in decreases in IS-PSE, it can be observed that participants with average levels of IS-PSE are not significantly vulnerable to sensationalised articles and are therefore not significantly influenced by "panicky media messages, which imply that risk inevitably results in harm" (Livingstone et al., 2018). It appears likely that at 'normal' or average levels of IS-PSE, resilience to negative messaging from sensationalised media is observed, and this group may not be at high risk of declines in IS-PSE from this particular channel.

Support for H_3, *(that the high IS-PSE group, in the sensationalised media condition, will remain unchanged)*; with results showing no statistical change for those with high IS-PSE, advances the argument that those with pre-existing high IS-PSE have limited vulnerability to impacts of sensationalised media articles. Elaboration likelihood model theory may play a role here again: as "high need for cognition has been shown to moderate message effects on cognitive processing" (Valkenburg et al., 2016, p. 326); this may explain why some participants may discount the sensationalised messaging of this type of article. An alternative view, with a similar outcome of discounting the impact of the content, involves research on media 'personalisation', where Valkenburg et al. (2016) suggest that "personalization may increase the cognitive and emotional engagement of media users [...] and by this route, it can enhance media effect". With media consumption now both more personalised, and self-selected than in previous decades, readers may be growing adept at focusing on only their preferred information. (Konijn, 2013). In assessing whether content is relevant for them, and in discounting content that they perceive not to be, participants may avoid becoming 'emotionally engaged' with content which they have chosen not to process. Such suppositions on high IS-PSE group reactions are further

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supported by the ANOVA test conducted to compare the impact of the sensationalised article among the three groups exposed to it; with the significant finding that the mean change score for the low IS-PSE group was a significantly higher than the change score of the high IS-PSE group – in other words, that the low IS-PSE was influenced much more heavily by the sensationalised article condition, relative to the impact on the high IS-PSE group.

Hypotheses 4, 5, and 6, focusing on the balanced media condition, were included in the study in order to explore whether IS-PSE change patterns are specific to the consumption of sensationalised media only. In reporting a significant increase in IS-PSE scores across the full participant sample in the balanced_article condition (n = 107), a highly interesting finding is presented. Both the low and average IS-PSE groups experienced significant increases in IS-PSE at time 2; with the high IS-PSE group not experiencing the same, likely due to a self-efficacy ceiling effect (Gist & Mitchell, 1992, p. 199). However this same ceiling effect is of direct relevance to the importance of the provision of balanced information to parents. Gist and Mitchell propose that "low self-efficacy will be less subject to a ceiling effect and can be increased contingent on the extent to which initial efficacy perceptions were inaccurate". In other words, if those with low IS-PSE believe their self-efficacy to be low for reasons other than genuine incompetency (for example self-doubt, anxiety, increased risk perception, and so on); then capacity for increased IS-PSE is highly likely.

5.1. Summary of Findings

In the course of this experimental study, two notable findings stand out. Firstly, that sensationalised articles appear to have been interpreted, or processed, differently, across the low, average, and high IS-PSE groups. Contrary to the expectation that those lowest in IS-PSE might experience further self-doubt in their efficacy related to their digital parenting approaches; a statistically *positive* response to sensationalised media reporting has been observed – but in the low IS-PSE group only. This paper suggests however, that any such increases may be superficial and short-lived. The average and high IS-PSE groups, although somewhat impacted in terms of a mean *decrease* in scores, were not impacted to a statistically significant extent.

Secondly, this paper identifies a clear finding in observing the positive impact on IS-PSE of exposure to the *balanced* article. In appreciating that "self-efficacy is increased by changing beliefs, information and knowledge" (Gist & Mitchell, 1992, p. 199), the provision of balanced digital parenting information can be seen in this study to make measurable positive changes to IS-PSE scores across the full participant sample, across all school-types. In this context it is also important to note that any potential interventions to increase IS-PSE (indeed, potentially through the provision of balanced information) should not be targeted towards any particular socio-economic group of parents, as mixed findings are evidenced right across the full participant sample, and targeting any particular SES group would be mis-informed.

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6. Theoretical and Practical implications of research

6.1. Study Limitations and Strengths

As a cross-sectional study and limited in scope, it was not possible to explore the impacts on participants of frequency, or depth, of exposure to sensationalised media. Related to this, choices of article may be open to critique. From this perspective, the study is limited in that it captures responses after the consumption of a single article, and therefore provides only an indication of potential impact.

Nonetheless, this study's research findings could be of practical interest to those developing, managing, or publishing parent-facing information; given findings which indicate that in situations where parents process information at a low level of elaboration, there is potential that any positive impacts on self-efficacy may be of short duration. On the other hand, with the positive effects of balanced media distinctly highlighted, further exploration and confirmation of this could provide support for those advocating the systematic delivery of clear, balanced, and accessible messaging to parents.

6.2. Opportunities for Future Research

With Ireland traditionally practising one of the highest levels of restrictive digital parenting in Europe (O'Neill, Grehan, & Ólafsson, 2011, p. 45) and with negative sentiments continuing to be evidenced with only 25% of Irish parents believing that the benefits of the internet outweigh any risks for their child (Webwise, 2017); continued research into potential influences on IS-PSE merit attention. Within the scope of its current focus, a larger-scale version of this study has merit in terms of either exposure to increased numbers of stimulus articles, or within-group exposure to both types of article. In attempting to understand whether observed effects might be either enduring, or short-lived, further empirical support distinguishing between cognitive factors at the root of IS-PSE, potentially including the exploration of confirmation bias and third-party effect, would greatly extend knowledge directly from this point.

Future studies wishing to extend the focus of this research might consider a study attempting to understand the *directions* in which changes to IS-PSE levels might take the parent. A priming experiment could provide an opportunity to link both sensationalised and balanced media to enabling or restrictive mediation approaches, as a further step towards measurement of outcomes, intrinsically difficult to link to intentions to act (Glatz & Trifan, 2019).

7. Conclusion

As an exploratory study, the current research advances academic knowledge on IS-PSE in establishing that it can be impacted by exposure to both sensationalised, and balanced, media articles. It identifies those most vulnerable to changes in IS-PSE as a result of exposure to sensationalised reporting; although further research is required to determine which specific cognitive factors might be the most salient. Numerous opportunities to further explore the exact nature, strength, and direction of any impacts are identified: particularly in paving the way for future studies to examine whether sensationalised or balanced reporting might ultimately feed into the application of either enabling, or restrictive, mediation practices. In practical terms, perhaps the most striking finding of the study is in identifying the markedly positive impact of balanced information on the IS-PSE levels of parents. While sensationalised media will always exist - for clickbait purposes if nothing else - the self-correction already underway within scientific publication *may* lead to an eventual decrease in overstated or misleading findings, and in the meantime, this study strongly points to the significant benefits of the provision of clear, positive, and measured advice to parents, both in its own right, and potentially also in helping to counteract any negative impacts of sensationalised reporting on IS-PSE.

IMPACTS OF SENSATIONALISED MEDIA ARTICLES ON IS-PSE   N00172877

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Appendices

Appendix A
Twenge Article Sharing (Facebook)

Appendix B

Position of Current Research within context of the broader Digital Mediation Field
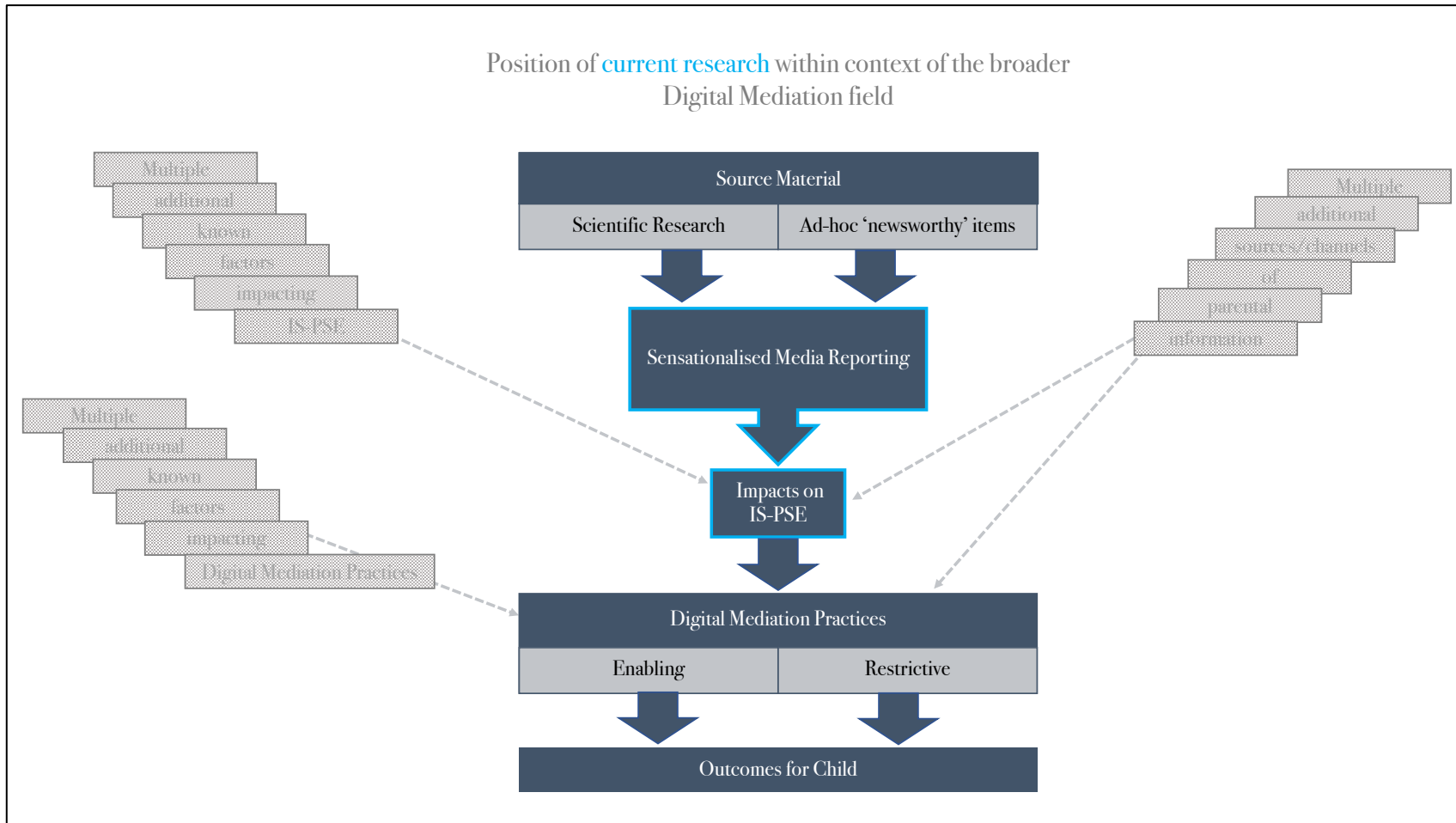
Appendix C
Primary School Types Ireland

The Irish Department of Education describes the Primary School system in Ireland as follows:

"The primary education sector includes state-funded primary schools, special schools and private primary schools. The state-funded schools include religious schools, non-denominational schools, multi-denominational schools and Gaelscoileanna (Irish-medium schools).

For historical reasons, most primary schools are state-aided parish schools, although this pattern is changing. The state pays the bulk of the building and running costs of state-funded primary schools, but a local contribution is made towards their running costs. Teachers' salaries are paid by the Department of Education and Skills, and the schools are inspected by the Department's Inspectorate."

Retrieved from https://www.education.ie/en/The-Education-System/Primary/
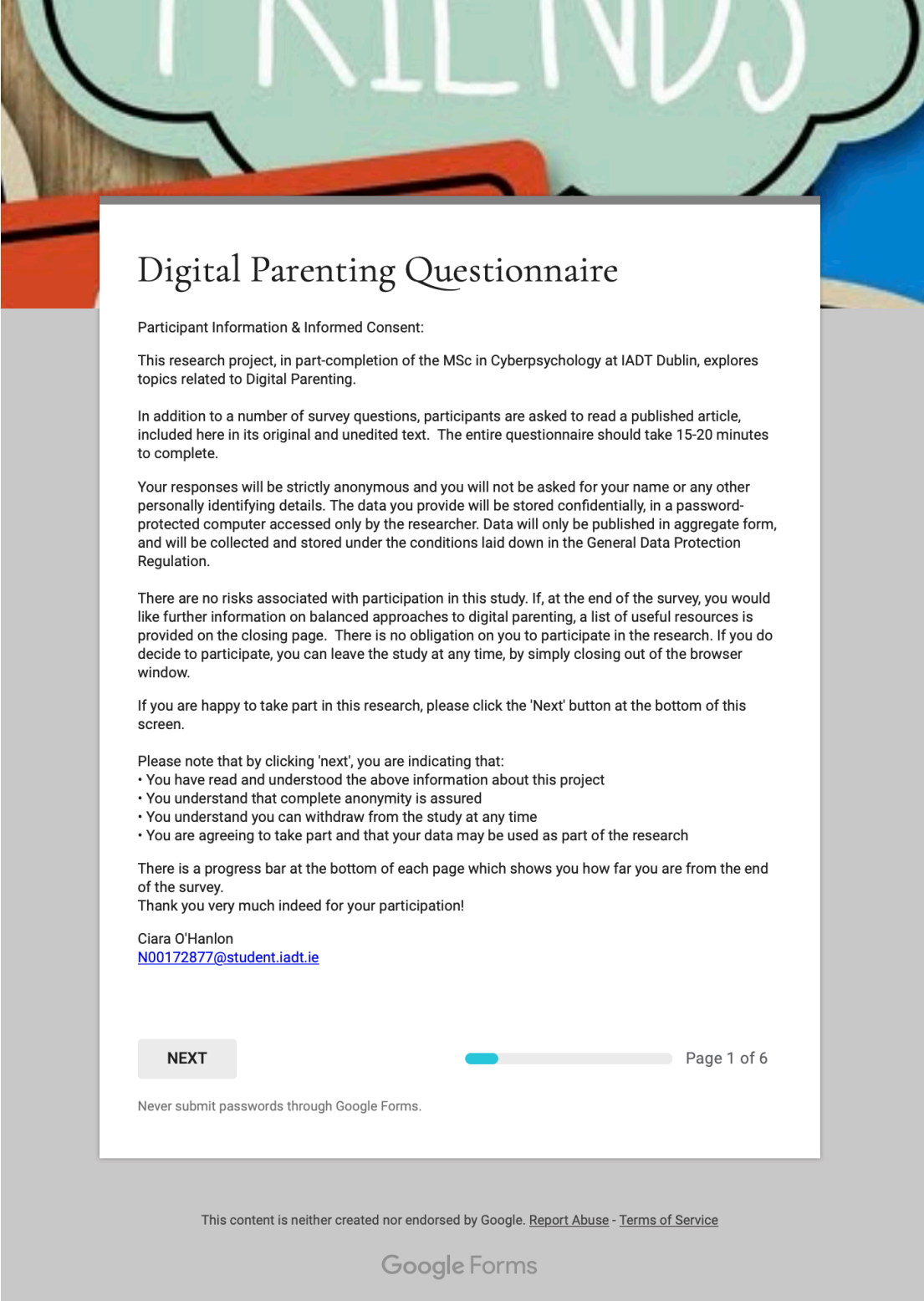
Parents with children in mainstream education in Ireland typically select from the following types of primary schools:

1. **National Schools**: Financed directly by the State but typically also with local community financial support

2. **DEIS schools**: Receiving additional state supports, serving socially-disadvantaged communities
   https://www.education.ie/en/Schools-Colleges/Services/DEIS-Delivering-Equality-of-Opportunity-in-Schools-/

3. **Gaelscoil**: State-funded, Irish language-medium schools

4. **Independent/Private** Primary/Prep School: Fee-Paying primary schools

Appendix D
'Digital Parenting' Online Questionnaire

Digital Parenting Questionnaire

Participant Information & Informed Consent:

This research project, in part-completion of the MSc in Cyberpsychology at IADT Dublin, explores topics related to Digital Parenting.

In addition to a number of survey questions, participants are asked to read a published article, included here in its original and unedited text. The entire questionnaire should take 15-20 minutes to complete.

Your responses will be strictly anonymous and you will not be asked for your name or any other personally identifying details. The data you provide will be stored confidentially, in a password-protected computer accessed only by the researcher. Data will only be published in aggregate form, and will be collected and stored under the conditions laid down in the General Data Protection Regulation.

There are no risks associated with participation in this study. If, at the end of the survey, you would like further information on balanced approaches to digital parenting, a list of useful resources is provided on the closing page. There is no obligation on you to participate in the research. If you do decide to participate, you can leave the study at any time, by simply closing out of the browser window.

If you are happy to take part in this research, please click the 'Next' button at the bottom of this screen.

Please note that by clicking 'next', you are indicating that:
• You have read and understood the above information about this project
• You understand that complete anonymity is assured
• You understand you can withdraw from the study at any time
• You are agreeing to take part and that your data may be used as part of the research

There is a progress bar at the bottom of each page which shows you how far you are from the end of the survey.
Thank you very much indeed for your participation!

Ciara O'Hanlon
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| NEXT | Page 1 of 6

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Google Forms

Digital Parenting Questionnaire

Demographics, Media, & Digital Parenting

Q1. Please indicate your gender: *

◯ Male

◯ Female

Q2. Which age bracket do you fall into? *

◯ 18-24

◯ 25-34

◯ 35-44

◯ 45-54

◯ 55+

Q3. Please indicate your highest completed level of education: *

◯ Intermediate or Junior Certificate

◯ Leaving Certificate

◯ Third Level (and/or any qualifications above)

Q4. To which of the following age groups do the children in your household belong? (Tick all that apply) *

☐ 0-4 years old

☐ 5-8 years old

☐ 9-12 years old

☐ 13-17 years old

Q5. Can you indicate how many boys under 12 at home? *

◯ 0

◯ 1

◯ 2

◯ 3+

Q6. Can you indicate how many girls under 12 at home? *

◯ 0

◯ 1

◯ 2

◯ 3+

Q7. Are there any teenagers at home? *

○ Yes

○ No

Q8. Which type of Primary School does your child (closest to age 10) attend? *

○ National School (State-funded) - Urban

○ National School (State-funded) - Rural

○ DEIS school - Urban

○ DEIS school - Rural

○ Fee-paying school (Private / Independent) - Urban

○ Fee-paying school (Private / Independent) - Rural

○ Gaelscoil - Urban

○ Gaelscoil - Rural

○ Other: _____

Q9. Which of the below is your main source of general news? *

○ Print newspaper

○ App or Online version of newspaper

○ Online-only news website (eg Journal.ie etc)

○ News feed on Social Media (Facebook /Twitter etc)

○ TV dedicated news channels or scheduled news broadcasts)

○ Website of TV news channel (Sky News/BBC/RTÉ online etc)

○ Radio

○ None of the above

○ I don't read or watch news

Q10. How would you define your news consumption? *

○ Extremely low - I don't read or watch news items

○ Low - I rarely access news items

○ Moderate - I access news quite frequently

○ High - I access news daily

○ Extremely high - I access news several times daily

Q11. Which of the following (print or online) general news sources would you be most likely to read? *

○ Irish Independent

○ Irish Times

○ Sunday Independent

○ Irish Examiner

○ Irish Daily Mail

○ None of the above

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Q12. Do you ever seek support, or information, on 'digital parenting' topics? (social media, gaming, 'screen-time', smartphones etc ...?)   *

○ I never seek support or information

○ I rarely seek support or information

○ I sometimes seek support or information

○ I quite often seek support or information

○ I frequently seek support or information

Q13. In the event that you did want advice on digital parenting topics, which would be the FIRST place you would check?   *

○ Ask other parents or friends

○ Ask my child's school directly

○ Ask a professional such as a doctor, social worker, or similar

○ Run a broad internet search - using keywords

○ Check a specific parenting website that I am familiar with

○ Check a specific internet safety website that I am familiar with

○ None of the above

Q14. How would you describe the levels of information that you feel you currently have, on digital parenting topics?   *

○ Extremely low - I have limited or no information

○ Quite low - I have hardly any information

○ Moderate - I have a moderate amount of information

○ Quite high - I have a good amount of information

○ Very high - I have a great deal of information

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If you have more than one child, please think about the child who is closest to 10 years of age, when answering the following questions:

Description (optional)

Q15. How confident do you feel in your ability to prevent your child from ... coming in contact with dangerous persons? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q16. How confident do you feel in your ability to prevent your child from ... being bullied? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q17. How confident do you feel in your ability to prevent your child from ... coming in contact with inaccurate information? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q18. How confident do you feel in your ability to prevent your child from ... coming in contact with material that will make him/her upset? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

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Q19. How confident do you feel in your ability to prevent your child from ... ending up on a website with pornographic content? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q20. How confident do you feel in your ability to prevent your child from ... ending up on a website with violent/ gory pictures? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q21. How confident do you feel in your ability to prevent your child from ... ending up on a website that has hatred content against individuals or groups? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q22. How confident do you feel in your ability to prevent your child from ... giving out or posting personal information that could be problematic for safety reasons? *

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q23. How much can you do to influence ... the time the child spends on the Internet? *

◯ Nothing

◯ Very little

◯ Some influence

◯ Quite a bit

◯ A great deal

Q24. How much can you do to influence ... what the child is doing on the Internet? *

◯ Nothing

◯ Very little

◯ Some influence

◯ Quite a bit

◯ A great deal

Digital Parenting Questionnaire

Digital Parenting Article: Please Read

Please click on the link below to access an article retrieved from the public domain. It is presented here in its full, unedited text.

Note that the article WILL OPEN IN A NEW BROWSER TAB (Window). Please read the article, and then RETURN TO THIS PAGE.

*** PLEASE DO NOT CLOSE THIS WINDOW OR YOUR SURVEY RESPONSES SO FAR WILL BE LOST! ***

https://drive.google.com/file/d/1LKqek64bHtpzTFxrlzhCPD5rYlcM6n8V/view?usp=sharing

PS: If your browser has a Pop-up blocker, it might prevent this article from opening, and you may notice an error symbol at the right-hand side of your address bar, advising you of a Pop-Up issue. To resolve this:

1) In the address bar, click 'Pop-up Blocked'
2) Click the link for the Pop-up you want to view (this article)
3) Click Done

| BACK | NEXT | | Page 4 of 6 |

 * Note Articles are located at Appendices E and F

Thank you for reading the article. Please continue with this final set of questions which will complete the survey. As before, if you have more than one child, please think about the child who is closest to 10 years of age, when answering the following questions:

Description (optional)

Q25. How confident do you feel in your ability to prevent your child from ... coming in contact with dangerous persons? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

Q26. How confident do you feel in your ability to prevent your child from ... being bullied? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

Q27. How confident do you feel in your ability to prevent your child from ... coming in contact with inaccurate information? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

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Q28. How confident do you feel in your ability to prevent your child from … coming in contact with material that will make him/her upset? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

:::

Q29. How confident do you feel in your ability to prevent your child from … ending up on a website with pornographic content? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

Q30. How confident do you feel in your ability to prevent your child from … ending up on a website with violent/ gory pictures? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

Q31. How confident do you feel in your ability to prevent your child from … ending up on a website that has hatred content against individuals or groups? *

○ Not confident

○ A little confident

○ Somewhat Confident

○ Very Confident

○ Extremely Confident

Q32. How confident do you feel in your ability to prevent your child from ... giving out *
or posting personal information that could be problematic for safety reasons?

◯ Not confident

◯ A little confident

◯ Somewhat Confident

◯ Very Confident

◯ Extremely Confident

Q33. How much can you do to influence ... the time the child spends on the Internet? *

◯ Nothing

◯ Very little

◯ Some influence

◯ Quite a bit

◯ A great deal

Q34. How much can you do to influence ... what the child is doing on the Internet? *

◯ Nothing

◯ Very little

◯ Some influence

◯ Quite a bit

◯ A great deal

Q35. Did you find this questionnaire through schooldays. ie? *

◯ Yes

◯ No

Q36. Did you find this questionnaire via @Webwise_Ireland? *

◯ Yes

◯ No

Digital Parenting Questionnaire

Submit Responses & Survey Close

***** Please be sure to click the SUBMIT button below, to save your data! You may have to scroll down to the bottom of this screen - especially on a phone, otherwise your responses will not be saved! *****

Thank you very much for participating in this research, it is very much appreciated!

Should you wish to look for balanced, informative guidance on digital parenting topics, the following can be recommended. There are numerous other sites also hosting good quality content.

Better Internet for Kids: www.betterinternetforkids.eu

Common Sense Media: www.commonsensemedia.org

Internet Matters: www.internetmatters.org

Parent Zone (UK): https://parentzone.org.uk

Parenting for a Digital Future: https://blogs.lse.ac.uk/parenting4digitalfuture/

UK Safer Internet Centre: https://www.saferinternet.org.uk/advice-centre/parents-and-carers

Webwise (Ireland): https://www.webwise.ie/parents

Thank you again for your time, and *** Please click SUBMIT below, to save your data, thank you! ***

| BACK | SUBMIT | | Page 6 of 6 |

Never submit passwords through Google Forms.

Thank you for completing this survey. Your data has been collected anonymously and your participation is much appreciated.

If you have any concerns about your participation in this survey, please do not hesitate to contact the researcher (Ciara O'Hanlon) at N00172877@student.iadt.ie

Thank you once again for your time!

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Appendix E
Sensationalised Article

ARE PHONES **REALLY** BAD FOR OUR KIDS?

Ugh... I know you're probably so sick of hearing this but the evidence is mounting, consistent and scary - phones are bad for our kids. (And for us - but that's for another website!)

Something happened around 6 years ago - I saw it myself in my practice, in the school with my TY students, in my friends' conversations about their kids. Something started going wrong.

Guidance counsellors that I know spoke to me about surging levels of anxiety in their students, self-harm became almost normal, cyberbullying became rife.

Research seems consistent: It's not the recession or remnants thereof, it's not increased academic pressure. There are a lot of things it's 'not'. We are better fed, better informed, better educated than ever - so what's up?

Smartphone ownership - social media use - and child and teen depression are very strongly correlated.

I cannot overstate this. There is no mistake here. It's been observed here and internationally. Both anecdotally and under scientifically controlled and measured conditions. We are almost all addicted to our devices.

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And it's worse for our kids. And just incase you are wondering are these teens using social media because they're more depressed - which by the way is an excellent question and one I pondered myself - well, researchers have covered that one too. And it seems not. The social media comes first, the depression and anxiety follows.

Just take a few moments to think about these differences:

Teens spend significantly less time interacting with each other in real life than their predecessors. You might argue, and you'd be right - that online contact is at least contact. But it's not real. There is no opportunity to negotiate things that arise in real life, there are lost opportunities to practice conversation, turn-taking, expression reading, physical contact, hugs, laughing - LOLs are great but are they the same?

Do we get the same endorphine, dopamine and oxytocin rush? It seems not! And perhaps this one reason why research is showing that teens who spend more time online are more likely to feel depressed.
Socialising online can have the unexpected and seemingly contradictory side effect of loneliness.

And just this week we heard a lot of talk about the effects of loneliness on our brain, body and mental health - with new research saying that feeling lonely can have as dangerous an effect on our health as a 15 a day habit!! There's a reason to think about your social life right there.

Another probable reason for this surge in teen depression is that teens sleep less than before, and the sleep they are getting isn't as good a quality as is needed for optimum physical and mental health. Why are they sleeping less?

I know teens who are online until 3am on school nights. And even if they aren't online quite that late, their brains are still coping with the blue light emitted from their devices up to the moment they decided to give sleepy time a go. I'm thinking I don't need to outline the effects of poor sleep to anyone reading this - most of you are parents and are all too aware of the wanting-to-die feeling when you haven't had enough sleep. Imagine believing that that's normal, and then facing into the classroom bully and exams with those feelings on board?! (Tip - check for your child's spare phone, the one you don't know about...)

And speaking of bullies - at least you and I could physically get away from them. That didn't mean though that their behaviour didn't affect us right? We might still ruminate, dread the next day at school, but at least, ideally, we'd have family time or

time with our nice friends to hang out uninterrupted for a few intervening hours. And then get some refreshing and helpful sleep.

But that's not possible if you have a smart phone.

Imagine if your bully could walk home behind you, or sit on your lap in the school bus, whisper to you during mealtimes, interrupt your favourite TV show by reminding you that everyone thinks you're an ugly whore? What if you couldn't sleep because your bully is in the bed next to you telling you how thick and useless you are and that tomorrow you're going to get a beating?
And imagine if you need to talk to your parent but don't know how to ask so you wait until they notice you. But they're on Twitter or Facebook or dealing with their newly triggered body image issues thanks to Instagram so good luck getting their attention... none of us are immune.

That's what kids are dealing with. That and more.

And then there's what they see online. Kids are being disturbed by porn sites which teach them how to be sexist and have dissatisfying sex lives.

They LOVE sites that promote 'healthy living' that are in fact body image obsessed social media 'influencers', looking to earn money from Google and YouTube and succeeding because they know how to manipulate your kids. These people your kids adore are laughing all the way to the cyberbank while your tween is left frowning in the mirror disgusted by what they see.

BEFORE we panic - here's what we can do:

The length of time spent online is of course a factor. Some research shows teens who spend five or more hours a day online are 71% more likely than those who spend less than an hour a day to have at least one suicide risk factor (depression, thinking about suicide, making a suicide plan or attempting suicide). Overall, suicide risk factors rise significantly after two or more hours a day of time online.

Two, or more. How long does your child spend online?

- Spend more time playing games with kids - actual proper fun games with real live people and laughing and mistakes and strategy and mess and snacks.
- Have meals together. Ban phones during meals. Yours too.
- Have TV nights. Ban phones during TV nights - yours too. Seriously. (Notice without judgement if you're resisting - that's normal, we're all phone mad!!)

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- Take the phone off them before they go to bed. No excuses.
- Get them talking in the car. Don't fall for the 'connecting families with car wi-fi' bulls*%t - it's the opposite of connection. These people don't care about your kids - they want your money.
- Don't use your phone in the car, even in traffic jams - this will teach them to do the same. The biggest killer on the road in the US is teens on phones!
- When they or you get home let them see you put your phone away and ask them about their day.
- Give them more housework. This increases responsibility, self esteem and whining. LOL - sorry about the last but that's just part of growing up. One we seem to have developed a sensitivity to and avoidance of. But that's not helpful, it will merely engender a sense of entitlement . And do we really want (more) entitled narcissists running the world in ten/twenty years? It's a kid's job to whine and it's an adult responsibility to not take that personally and teach them how to be the kind of grown up you'd like to have a coffee with.

This stuff is new. Your parents or old parenting books cannot tell you from experience how this will go. But one thing hasn't changed in the last five years - you are in charge.

You're the parent. You decided on the boundaries and rules in your house. And yes, your child will rebel - that's healthy. And yes your child won't be happy if they don't have access to snapchat while all their friends do. But they'll get used to it, they won't be harmed and honestly you are doing them a favour.

You could ask your friends to do the same so all your kids are 'suffering' (ie being protected) equally.

When they've grown up, resilient, responsible, well socialised people they will thank you. Bet you a tenner.

But for now - the results are in - our choices are clear!

Retrieved from: http://www.familyfriendlyhq.ie/family-blog/are-phones-really-bad-for-our-kids. No publication date; accessed 19 February 2019.

Appendix F
Balanced Article

Why the Best Parental Control Is You

Instead of flipping a switch, be the voice in their head.

By Christine Elgersma 4/11/2018

Topics: Digital Citizenship, Healthy Media Habits, Learning with Technology, Screen Time

If your kid's online, there have probably been times when you've wanted to track everything they've texted, see their entire social media history, or just shut off the internet entirely. Those are the times you wish for the perfect parental controls -- something that will grant you all the access and authority you want without making a bad situation worse. The truth is, while clicking a few buttons on a hardware device or downloading a monitoring service seem like no-brainers, the most effective parental control is free and knows your kid very well. That's right: It's you. Digital tools and settings can help you stay on top of your kid's online life, but can't replace staying involved, having conversations, and helping them make responsible choices. Need more convincing? Here are the key reasons why you are the best parental control around:

Fighting tech with tech can fail. If they put their minds to it, kids can defeat almost any parental control. One of the truisms of the digital age is that your kids probably know more than you do, and it's easy for them to Google "How do I get around parental controls?" and read step-by-step instructions for dismantling your carefully chosen software or device. Of course, there are tools that do what they promise and offer you some comfort and control … at least for a while. So, if shutting down the internet via a tap is helpful for your family, pairing it with conversations likely will make it more effective. And if your kid does an end run around your parental control, let them learn to code so they can channel their skills in a positive way.

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Spying isn't sustainable. Kids -- especially older kids -- may feel like parental controls invade their privacy. According to one study, the loss of trust prompted by parental controls can weaken your whole relationship. Simply shutting the internet off is one thing, but if you try to track your kid's social media accounts or read their text messages, they may just create new profiles and take their conversations to other platforms far away from your prying eyes. Instead, when you decide it's time for them to go online or have a phone, let them know upfront that you'll do spot-checks -- not to "catch them" or get in their business -- but to support them as they learn balance in the digital world. If you decide to use parental-control devices or platforms, integrate them into ongoing conversations so they can serve as a safety net as your kid is learning the ropes. The world of digital media and its influence on our kids are far too complicated for simple solutions or ultra-strict oversight.

What you say makes more of an impact. Instead of flipping a switch, be the voice in their head. Teaching and modeling a healthy approach to the online world will have a much more lasting impact. Being able to shut down the internet in your home at key times can be very helpful, but it's also a bit like always fastening your kid's seatbelt for them: Eventually, we want them to remember to buckle up on their own. To get a kid to really remember something, research shows that some information requires repetition over time. A combination of showing them a healthy approach and discussing media and tech use over time, on multiple occasions, will help kids regulate themselves and build skills to carry into adulthood. When you say things like, "Remember to think before you post," "Don't talk to strangers on the internet," and "Use strong privacy settings," they'll remember. As new technology comes and goes, we are our kids' North Star, the constant guidance in a constellation that keeps changing shape, and tech-based parental controls will never shine as brightly as our influence.

Sharing instead of shutting down sparks learning. Sometimes we let our kids use devices because we're looking for a few minutes to get something finished, and setting time limits and doing spot checks -- verbally or with digital parental controls -- is important. But the more we can watch and play with our kids, the more they'll learn from the media they're using. Research shows that just sitting with your kid while you watch heightens their awareness, which can make them more receptive to learning. It can also boost literacy skills and empathy, and -- since we know our kids best -- when moments come up in media that apply specifically to our kids' lives, we can use those instances to start a discussion, ask questions, and make connections. Also, the more we model this dialogue with media for our kids, the more they can look at it critically, ask questions themselves, and take away lessons for their own lives.

Appendix G
Glatz, Crowe, & Buchanan (2018) IS-PSE Scale

Glatz, T., Crowe, E., & Buchanan, C. M. (2018). Internet-specific parental self-efficacy: Developmental differences and links to Internet-specific mediation. *Computers in Human Behavior*, *84*, 8-17.

How confident do you feel in your ability to prevent your child from ...

1. ... coming in contact with dangerous persons?

2. ... being bullied?

3. ... coming in contact with inaccurate information?

4. ... coming in contact with material that will make him/her upset?

5. ... ending up on a website with pornographic content?

6. ... ending up on a website with violent/ gory pictures?

7. ... ending up on a website that has hatred content against individuals or groups?

8. ... giving out or posting personal information that could be problematic for safety reasons?

Response options for Items 1 - 8:

1: Not confident
2: A little confident
3: Somewhat confident
4: Very confident
5: Extremely confident

How much can you do to influence ...

9. ... the time the child spends on the Internet?

10. ... what the child is doing on the Internet?

Response options for Items 9 and 10:

1: Nothing
2: Very little
3: Some influence
4: Quite a bit
5: A great deal

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Appendix H

Department of Technology and Psychology Ethical Approval Form A (IADT)

DEPARTMENT OF TECHNOLOGY AND PSYCHOLOGY
ETHICAL APPROVAL FORM A

Title of project   Impacts of Sensationalised Media Articles on

Internet-Specific Parental Self-Efficacy

Name of researcher   Ciara O'Hanlon

Email contact   N00172877@student.iadt.ie

Name of supervisor   Dr. Dean McDonnell

		Yes	No	N/A
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	✓		
2	Will you tell participants that their participation is voluntary?	✓		
3	Will you obtain written consent for participation (through a signed or 'ticked' consent form)?	✓		
4	If the research is observational, will you ask participants for their consent to being observed?			✓
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	✓		
6	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	✓		
7	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	✓		
8	Will you debrief participants at the end of their participation (i.e., give them a brief explanation of the study)?	✓		
9	If your study involves people between 16 and 18 years, will you ensure that <u>passive</u> consent is obtained from parents/guardians, with active consent obtained from both the child and their school/organisation?			✓
10	If your study involves people under 16 years, will you ensure that <u>active</u> consent is obtained from parents/guardians <u>and</u> that a parent/guardian or their nominee (such as a teacher) will be present throughout the data collection period?			✓
11*	Does your study involve an external agency (e.g. for recruitment)?		✓	
12	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort?		✓	
13	Does your project involve work with animals?		✓	

14	Do you plan to give individual feedback to participants regarding their scores on any task or scale?			✓	
15	Does your study examine any sensitive topics (such as, but not limited to, religion, sexuality, alcohol, crime, drugs, mental health, physical health)			✓	
16	Is your study designed to change the mental state of participants in any negative way (such as inducing aggression, frustration, etc.)			✓	
17	Will your project involve deliberately misleading participants in any way?			✓	
18	Do participants fall into any of the following special groups?	People with learning or communication difficulties		✓	
		Patients (either inpatient or outpatient)		✓	
		People in custody		✓	

If you have ticked **No** to any of questions 1 to 11, or **Yes** to any of questions 12 to 18 you should refer to the PSI Code of Professional Ethics and BPS Guidelines and consult with your supervisor without delay. You will need to fill in Ethical Approval Form B and submit it to the Department of Technology and Psychology Ethics Committee (DTPEC) in place of this form.

There is an obligation on the researcher to bring to the attention of the DTPEC any issues with ethical implications not clearly covered by the above checklist.

I consider that this project has **no** significant ethical implications to be brought before the DTPEC. I have read and understood the specific guidelines for completion of Ethics Application Forms. I am familiar with the PSI Code of Professional Ethics and BPS Guidelines (and have discussed them with my supervisor).

Signed _____ Print Name _____ Date _____
Applicant

I have discussed this project with my student, and I agree that it has no significant ethical implications to be brought before the DTPEC.

Signed _____ Print Name _____ Date _____
Supervisor

* If you are dealing with an external agency, you must submit a letter from that agency with the form A. The letter must provide contact details, and must show that they have agreed for you to carry out your research in their organization

Appendix I
SPSS Output

Paired Samples t-test 1 : Full Participant Sample

T–Test

[DataSet1] /Users/ciaramathews/Library/Mobile Documents/com~apple~CloudDocs/MSc/DigiParent Thesis/Stats/CiaraFullFinalData.sav

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T1_ISPSE	31.9381	210	7.61269	.52533
	T2_ISPSE	32.5810	210	7.69488	.53100

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	T1_ISPSE & T2_ISPSE	210	.863	.000

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	T1_ISPSE – T2_ISPSE	-.64286	4.01207	.27686	-1.18865	-.09706	-2.322	209	.021

Paired Samples t-test 2: Filtered for Balanced_article:

```
USE ALL.
COMPUTE filter_$=(tertile_group = 1 or tertile_group = 3 or tertile_group = 5).
VARIABLE LABELS filter_$ 'tertile_group = 1 or tertile_group = 3 or tertile_group = 5 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.


T–TEST PAIRS=T1_ISPSE WITH T2_ISPSE (PAIRED)
  /CRITERIA=CI(.9500)
  /MISSING=ANALYSIS.
```

T–Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T1_ISPSE	32.2617	107	7.54901	.72979
	T2_ISPSE	33.8692	107	7.38060	.71351

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	T1_ISPSE & T2_ISPSE	107	.874	.000

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	T1_ISPSE – T2_ISPSE	-1.60748	3.74860	.36239	-2.32595	-.88900	-4.436	106	.000

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Paired Samples t-test for Hypotheses 1-6:

Paired Samples Statistics

tertile_group			Mean	N	Std. Deviation	Std. Error Mean
1.00	Pair 1	T1_ISPSE	19.8667	15	3.54293	.91478
		T2_ISPSE	23.4667	15	5.46243	1.41039
2.00	Pair 1	T1_ISPSE	20.2778	18	2.13667	.50362
		T2_ISPSE	22.1667	18	3.14830	.74206
3.00	Pair 1	T1_ISPSE	31.4545	66	3.93478	.48434
		T2_ISPSE	32.8939	66	4.38223	.53942
4.00	Pair 1	T1_ISPSE	30.9355	62	3.44451	.43745
		T2_ISPSE	30.3710	62	5.04158	.64028
5.00	Pair 1	T1_ISPSE	41.4615	26	3.52398	.69111
		T2_ISPSE	42.3462	26	4.70695	.92311
6.00	Pair 1	T1_ISPSE	42.2609	23	3.68310	.76798
		T2_ISPSE	40.6957	23	6.51875	1.35925

Paired Samples Correlations

tertile_group			N	Correlation	Sig.
1.00	Pair 1	T1_ISPSE & T2_ISPSE	15	.620	.014
2.00	Pair 1	T1_ISPSE & T2_ISPSE	18	.377	.123
3.00	Pair 1	T1_ISPSE & T2_ISPSE	66	.565	.000
4.00	Pair 1	T1_ISPSE & T2_ISPSE	62	.734	.000
5.00	Pair 1	T1_ISPSE & T2_ISPSE	26	.839	.000
6.00	Pair 1	T1_ISPSE & T2_ISPSE	23	.537	.008

Paired Samples Test

tertile_group			Paired Differences					t	df	Sig. (2–tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
1.00	Pair 1	T1_ISPSE – T2_ISPSE	–3.60000	4.28952	1.10755	–5.97546	–1.22454	–3.250	14	.006
2.00	Pair 1	T1_ISPSE – T2_ISPSE	–1.88889	3.06573	.72260	–3.41344	–.36434	–2.614	17	.018
3.00	Pair 1	T1_ISPSE – T2_ISPSE	–1.43939	3.89923	.47996	–2.39794	–.48084	–2.999	65	.004
4.00	Pair 1	T1_ISPSE – T2_ISPSE	.56452	3.43378	.43609	–.30750	1.43653	1.294	61	.200
5.00	Pair 1	T1_ISPSE – T2_ISPSE	–.88462	2.59734	.50938	–1.93370	.16447	–1.737	25	.095
6.00	Pair 1	T1_ISPSE – T2_ISPSE	1.56522	5.50063	1.14696	–.81343	3.94387	1.365	22	.186

ANOVA: Between-Groups Change in Scores (Sensationalised article):

Oneway

Descriptives

changeISPSE

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
2.00	18	1.89	3.066	.723	.36	3.41	−3	9
4.00	62	−.56	3.434	.436	−1.44	.31	−10	10
6.00	23	−1.57	5.501	1.147	−3.94	.81	−24	3
Total	103	−.36	4.048	.399	−1.15	.43	−24	10

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
changeISPSE	Based on Mean	.408	2	100	.666
	Based on Median	.253	2	100	.777
	Based on Median and with adjusted df	.253	2	57.139	.778
	Based on trimmed mean	.284	2	100	.753

ANOVA

changeISPSE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	127.037	2	63.518	4.112	.019
Within Groups	1544.672	100	15.447		
Total	1671.709	102			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: changeISPSE
Tukey HSD

(I) tertile_group	(J) tertile_group	Mean Difference (I–J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
2.00	4.00	2.453	1.052	.056	−.05	4.96
	6.00	3.454*	1.237	.017	.51	6.40
4.00	2.00	−2.453	1.052	.056	−4.96	.05
	6.00	1.001	.960	.552	−1.28	3.28
6.00	2.00	−3.454*	1.237	.017	−6.40	−.51
	4.00	−1.001	.960	.552	−3.28	1.28

*. The mean difference is significant at the 0.05 level.

Appendix J

Graphs: News gateways, 'Digital Parenting Support' Statistics

Data was gathered to gain an insight into participants news gateways, to add context to the role of media reporting within parental efforts to acquire Digital Parenting information. While this data produced no significant findings, a number of graphs are provided here for interest. (All data collected at time 1, *n* = 201).
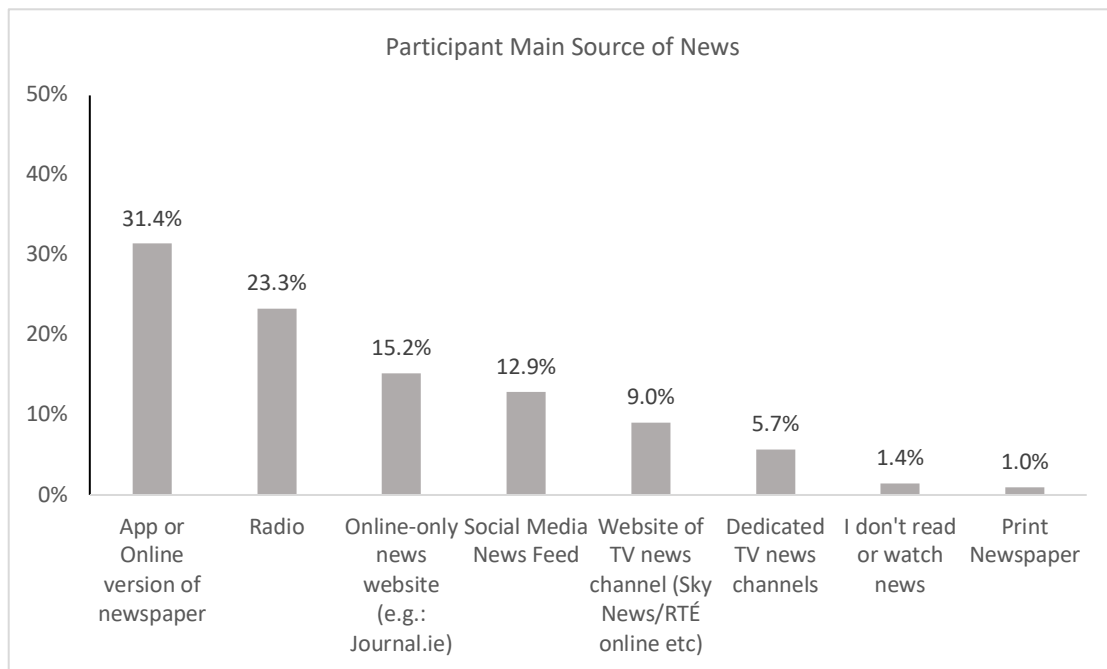

Figure 2. Participant main source of news in response to question: *Which of the below is your main source of general news?*
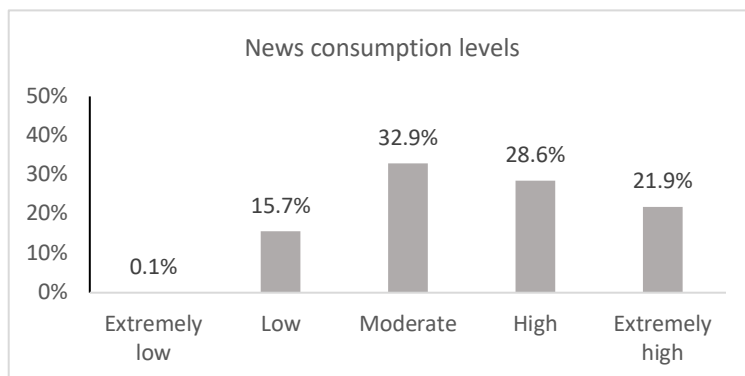

Figure 3. Participant levels of news consumption in response to question: *How would you define your news consumption?*
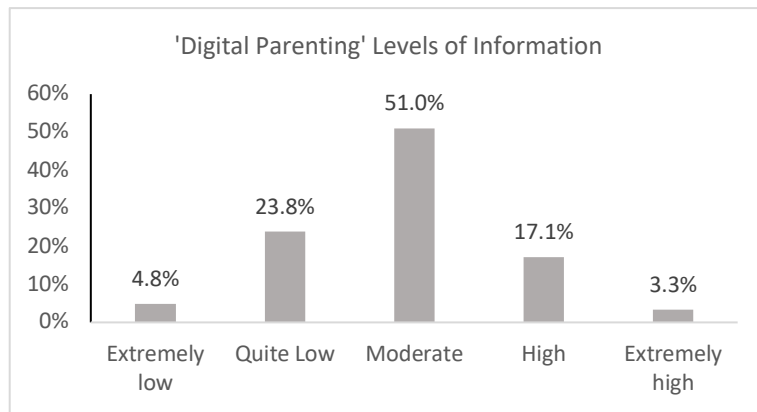
61

Figure 4. Self-reported levels of information on 'Digital Parenting' topics in response to question: *How would you describe the levels of information that you feel you currently have, on digital parenting topics*?
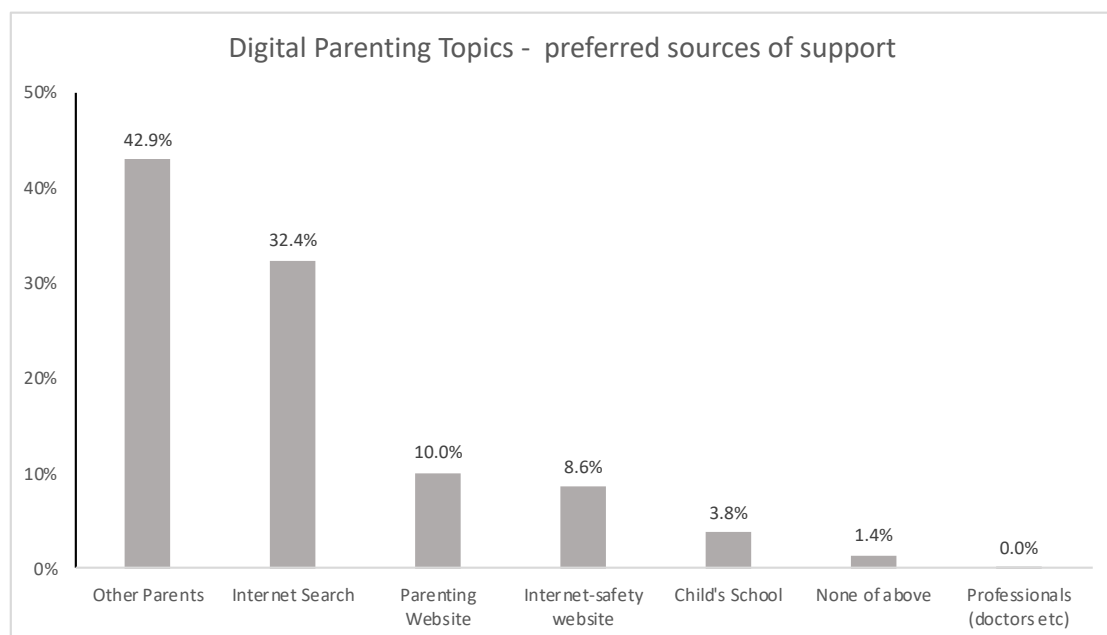

Figure 5. Preferred sources of support in response to question: *In the event that you did want advice on digital parenting topics, which would be the FIRST place you would check?*