Journal of Marketing Management
Vol. 26, Nos. 13–14, December 2010, 1345–1366

Taylor & Francis
Taylor & Francis Group

How does the web make youth feel? Exploring the positive digital native rhetoric

Kelly Page, *Cardiff University, UK*
DK, *MediaSnackers, Cardiff, UK*
Mark Mapstone, *MediaSnackers, Cardiff, UK*

Abstract Limited research has examined consumer emotional responses to digital media. In this article, we explore the emotional responses to the web of the Digital Native, who express in their own words how the web makes them feel and why. Content analysis and response classification reveals a hierarchical model of emotional responses to the web expressed by the Digital Native. Our findings suggest that a youth and web application context influence the hierarchical framework of consumer web emotions. Within a youth cohort born between 1990 and 1996, differences in how the web makes youth feel is identified across age groups, contesting the popular positive Digital Native rhetoric often used to justify market segmentation and digital government policy targeted at youth markets.

Keywords Digital Native; emotion; digital marketing; consumer behaviour; segmentation

Introduction

Limited research has explored consumer emotional responses to digital media. This is surprising given that emotions play a central role in social cognition and decision making (Damasio, 2005). Consumers are powered by emotion, not by reason. Reason alone cannot make people feel anything, and it is how we feel that motivates our behaviour (Calne, 2000; Damasio, 2005; Izard, 1977, 1992; Westbrook & Oliver, 1991). Experiences are shaped by deep feelings and emotions – feelings of joy, fear, love, hope, fantasy, and happiness. When faced with complex or inadequate information, a hybrid approach in which reason and emotion become intertwined is often followed. However, when they are in conflict, emotion has more impact, as the neurologist Calne (2000) expresses it, 'the essential difference between emotion and reason is that emotion leads to action while reason leads to conclusions'.

Emotion has long been recognised as an important feature underlying human behaviour. Research in marketing over the last two decades has increasingly researched emotions with techniques drawn from environmental psychology (Mehrabian & Russell, 1974) exploring emotions evoked by marketing stimuli, products, and brands (Holbrook

ISSN 0267-257X print/ISSN 1472-1376 online

DOI: 10.1080/0267257X.2010.523709
http://www.informaworld.com

& Hirschman, 1982). These include emotional responses to advertising (Derbaix, 1995), role of emotions on consumer satisfaction (Phillips & Baumgartner, 2002), complaining behaviour (Stephens & Gwinner, 1998), service failures (Zeelenberg & Pieters, 1999), and product attributes (Dube, Cervellon, & Jingyuan, 2003). More recently, research has explored the role of emotions in consumer decision making (Han, Lerner, & Keltner, 2007; Kwortnik & Ross, 2007). However, limited in the literature is research exploring consumer emotional responses to web-based digital media[1] channels.

Consumer research of the web is dominated by an examination of the rational or functional side of human–technology interaction. As reviewed by Dennis, Merrilees, Jayawardhena, and Wright (2009), a plethora of studies exist profiling and modelling issues such as: the economic and rational motives for web usage (Korgaonkar & Wolin, 1999); web usability (Lederer, Maupin, Sena, & Zhaung, 2000; Venkatesh, Morris, Davis, & Davis, 2003); information-processing activities for effective interface design (Tarafdar & Zhang, 2005); online shopping (Hernandez, Jimenez, & Martín, 2009); and digital analytics for profiling web behaviour (Bhat, Bevans, & Sengupta, 2002; Seggie, Cavusgil, & Phelan, 2007). Despite early work coupling the cognitive state of 'flow' that consumers can experience during web-based navigation (Hoffman & Novak, 1996) and its espoused positive experiential effects (Novak, Hoffman, & Yung, 2000), only sparse work exists specifically focused on digital media and consumer emotion. Drawing from environmental psychology, which suggests that people's initial response to any environment is affective, web atmospherics are seen as akin to a physical retail environment (Alba, Lynch, Weitz, & Janiszewski, 1997; Childers, Carr, Peck, & Carson, 2001), and, from this work, studies are emerging exploring how emotions factor with web behaviours such as e-shopping (Jayawardhena & Wright, 2009). However, absent in the literature is deeper exploration of consumer emotional responses to digital media – how digital media makes consumers feel. This is despite the importance of emotion in consumer decision making (Calne, 2000; Damasio, 2005) and the role of differing consumption contexts in triggering emotions (Kwortnik & Ross, 2007). The digital context for consumption is of increasing prevalence in twenty-first-century society, and it is especially important amongst younger generations of consumers termed 'Digital Native'.

The Digital Native is one of several terms used to refer to a generational cohort of consumers based on their fixed product of early development (i.e. year of birth after 1983) and therein assumed difference to older generations because of their assumed exposure, experience, and/or emersion with digital technology (Jones & Cross, 2009). In this, it is assumed generations born after 1983 exhibit behavioural and psychological differences to earlier generations that did not have such digital media exposure. Differences include preferring more active to passive learning, having distinct information search patterns, and a lower tolerance for delays (Jones & Cross, 2009; Prensky, 2001a, 2001b, 2009; Tapscott, 1998, 2008). Tapscott (1998, 2008) used the term 'Net Generation' to refer to those born after 1983 (i.e. aged 27 and younger in 2010), a cohort Oblinger and Oblinger (2005) later termed 'Millenials'. In contrast, Prensky (2001, 2001b, 2009) used the term 'Digital Native' to refer to the same generation, and 'Digital Immigrant'[2] for those born prior to 1983. Both suggest that technology leads to determinate outcomes.

[1]Digital media are electronic media (i.e. channels, platforms, and/or tools) that use digital codes to enable users to share, comment on, edit, and create digital content.

[2]Beyond the scope of this paper is the Digital Immigrant, those born prior to 1983, who retain the 'accent' of the pre-digital era even when they become socialized into a digital environment (i.e. can recall pre-digital). (Prensky, 2001a, 2001b, 2009).

The term 'Digital Native' is used here, as unlike Tapscott (1998) and more recent work by Jones and Cross (2009) who focus mainly on first-year university students (i.e. those born 1983–1993), Prensky's (2001a, 2001b, 2009) 'Digital Native' also includes younger consumers – those born after 1993 in schools and colleges. Those born after 1993 are reported to show even further generational differences today to those born 1983–1993 (JISC-Ciber, 2008). For example, of all 12–15 year olds in the UK today, more than 90% are reported to have access to the Internet (e.g. at home or in school); 74% have a games console in their bedroom; and 70% have a profile on a social-networking site (OfCom, 2010), with social-network use surpassing e-mail use among teens (Nielsen, 2009a, 2009b, 2009c). As such, assumptions prevail about this group of Digital Natives' inherent savvy with digital media. However, there is growing empirical evidence that suggests caution in defining a new generation of young consumers in relation to their lifelong exposure to digital technologies. Selwyn (2008) and Margaryan and Littlejohn (2009) reported more complex generational profiles with newer generations of learners being no more homogenous than previous generations in their digital media use and learning profiles. As such, it is increasingly important to explore the popular 'positive' rhetoric about the effect digital media is having on the emotional responses of this consumer group.

In this article, we examine emotional responses to the web of the Digital Native specifically born 1990 to 1996 (i.e. aged 13–19 years in 2009), exploring using their own words about how the web makes them feel and their reasons why. Guided by the work of Richins (1997) and Laros and Steenkamp (2005), we conduct content analysis and response classification to reveal a hierarchical model of web emotions expressed by younger digital natives and exploring within cohort differences in emotional responses. The results provide insight as to the validity of the popular 'positive' rhetoric about the digital native. This has implications for youth segmentation and policy that informs how we converse, participate, and engage with the digital native.

Consumer emotions

An emotion has been defined as 'a mental state of readiness that arises from cognitive appraisals or events or thoughts' (Bagozzi, Gopinath, & Nyer, 1999, p. 184), a subjective internal state that has biological, cognitive, and social components (Bourne & Russo, 1998, p. 364). In this, emotions are multifaceted phenomena consisting of behavioural, expressive, and physiological reactions, and subjective feelings (Desmet, 2003). These feelings are strong and uncontrollable, and generally triggered by outside events or stimuli (Haksever, Render, Russell, & Murdick, 2000). The theoretical position on emotions is divergent in the literature, ranging from coarse-grained theory to highly complex and multifaceted theoretical standpoints. Emotion has been positioned in the literature as a feeling of physiological change (James-Lang Theory: Reisenzein, Mayer, & Schutzwohl, 1995) and as a physiological body change in reaction to our perceptions (Cannon-Bard Theory: Bourne & Russo, 1998). We also see emotions as divided into two parts: general arousal (physiological) and a cognitive appraisal (psychological; two-factor model: Weiner, 1985). Further, we emotions as interrelationships between eight affective components organised in a circular arrangement (e.g. pleasure–displeasure; arousal–sleepiness; excitement–depression; and contentment–distress). This is referred to as the Spatial Model (Russell, 1980). These are just some of the various theories and taxonomies of emotion (Richins, 1997; Shaver, Schwartz, Kirson, & O'Conner, 1987; Storm & Storm, 1987). However, each adopts a differing approach, and, in that, hampers

consumer research in the area of emotions (Kwortnik & Ross, 2007). Particularly evident in these studies is the confusion between the content (e.g. pleasure/arousal) of emotion, the structure (e.g. general or specificity) of emotion (Bagozzi et al., 1999; Laros & Steenkamp, 2005), and the importance of the context within which emotions are experienced (Richins, 1997).

The context of emotions

Research on consumer emotions has identified that emotions are context specific in that although emotions can be generalised (e.g. anger, fear, happy), different contexts evoke difference emotions. Richins (1997) provided a narrow distinction between different emotions within the consumption context called the Consumption Emotions Set (CES). CES is based on 13 emotions. Testing of the CES identified variations in the emotions evoked by different consumption situations. For example, sentimental objects were the least likely to evoke negative emotions such as anger and fear, while automobiles were likely to evoke feelings of guilt (Richins, 1997). The research of Celsi, Rose, and Leigh (1993) and more recent work by Kwortnik and Ross (2007) has further identified a wide array of emotions experienced by consumers in different consumption situations. This empirical research indicates that although in some situations positive emotions are important (Kwortnik & Ross, 2007), in others they are less significant (Celsi et al., 1993). The findings of Richins (1997) and more recent work of Kwortnik and Ross (1997) demonstrate that the nature of emotions experienced depends on the specific consumption situation in which they occur, including media contexts. All digital media channels are potentially emotive (Jones & Cross, 2009, p. 419). However, characteristics specific to the Internet 'confer emotion-evoking advantages that offline media lacks'. Characteristics such as vividness, synchronicity, pacing, and interactivity may evoke differing consumer experiences and types of emotions (Liu & Shrum, 2002). Exploring emotions evoked by web usage is sparse in the literature, with focus on web atmospherics (Alba et al., 1997; Childers et al., 2001) and affective states as considerations for e-shopping (Jayawardhena & Wright, 2009). These studies provide for identification of the importance of digital media contexts in the study of consumer emotions, their influence on emotive responses, and, therein, the effective use of digital media marketing activities.

Structure and content of emotions

There is considerable and conflicting debate in the literature on how to define emotions, their content, and structure. Drawing from this debate, this paper builds specifically on the leading contributions of Laros and Steenkamp (2005). The literature on emotions reveals that emotions can be grouped into clusters, revealing a hierarchical structure. This includes the more general superordinate level (Izard, 1977; Richins, 1997; Ruth, Brunel, & Otnes, 2002), an intermediate or basic emotion level, and then the subordinate level consisting of specific individual emotions (Shaver et al., 1987; Storm & Storm, 1987). Laros and Steenkamp (2005) specified that for empirical research in this area to develop, the establishment of a hierarchical model of emotions is important. Laros and Steenkamp (2005) proposed that consumer emotions should be considered at differing levels of abstractness, and identified that the classification of emotions as either positive or negative affect appears to be the most popular conceptualisation. This formed in their hierarchy the superordinate level of consumer emotions. Their content analysis of 10 seminal papers on emotions and emotion words further identified that, consistent with the notion put forward by

Morgan and Heise (1988), there are more negative than positive emotion words to describe consumer emotive responses to stimuli. Laros and Steenkamp (2005) distinguish and empirically test consumer emotional responses to food items at the superordinate level (positive/negative), and the basic and specific level as guided by Richins' (1997) Consumption Emotion Set (CES). This article builds on the work of Richins (1997) and Laros and Steenkamp (2005) by examining the content and structure of web emotions, specifically the emotional responses of Digital Natives born 1990–1996 for the digital media context of the web.

Youth web emotions

Content and structure of youth web emotions

The Digital Natives today are digitally connected more than any other demographic (Nielsen, 2009a, 2009c; OfCom, 2010). Such immersion in a technology-rich culture is said to influence the skills and interests, and the ways in which Digital Natives learn compared to past generations (O'Brien, 2008; Palfry & Gasser, 2008; Prensky, 2009; Toledo, 2007). However, critics warn that assumptions about the Digital Natives' skill and responsiveness to digital technology is not backed by enough empirical evidence (Bennett, Maton, & Kervin, 2008). Selwyn (2008) and Margaryan and Littlejohn (2009) reported complex generational profiles with newer generations of learners being no more homogenous than previous generations in their digital media use or learning profiles. Hargittai (2010) further profiled the skills of younger adults at university, and the findings did not support the popular rhetoric that young adults are universally knowledgeable. Although Digital Natives may be more connected than any other generation, they are also undergoing major life transformation – a transformation that might not just influence knowledge and skills, but also their emotional responses and sensitivity. Furthermore, many of these studies are based on Digital Natives in first-year colleges and/or university, that is, those born between 1983–1993. Given the importance of emotions on human behaviour yet limited research exploring how all this connectivity makes youth feel, in this article, we examine the content and structure of youth emotional responses to the web. We explore the validity of the popular 'positive' digital native rhetoric and especially within cohort differences in Digital Natives born 1990–1996.

Youth differences in web emotions

We further examine if youth significantly differ in their emotional responses according to their biological gender (hereafter, gender) and their age. When it comes to web usage, the role of gender appears to be mixed. As well as being less intensive users of Internet technologies (Bimber, 2000; Jackson, Ervin, Gardner, & Schmitt, 2001; Ono & Zavodny, 2003; Teo & Lim, 2000), females report lower Internet skill levels (Schumacher & Morahan-Martin, 2001), and exhibit higher levels of incompetence, discomfort, and anxiety (Zhang, 2005) than male Internet users. Nevertheless, many other studies have reported no significant differences between male and females in Internet adoption (Bimber, 2000; Ono & Zavodny, 2003), usage (Gefen & Straub, 1997; Teo & Lim, 2000; Tsai & Lin, 2004), and perceptions (Zhang, 2005). With respect to youth in particular, usage trends show that boys reportedly spend 7% more time online than girls, while girls viewed 9% more web pages than boys did in May 2009 (Nielsen, 2009a). However, these aforementioned results report behavioural (i.e. usage) and cognitive (i.e. competence) comparators across gendered web experiences. Limited

empirical research explores the influence digital media such as the web has on how males or females feel from using the web. Given the popular 'positive' digital native rhetoric and the observed behavioural differences in how girls and boys behave online, we explore how male and female youth differ in their emotional responses to the web.

Web usage trends report that the 16–24 age group use the web more than any other demographic, with 77% in the United Kingdom using it every day or almost every day (Nielsen, 2009a). However, do youth differ in how the web makes them feel as they get older? Research identifies that younger and older children differ in their ability to process information and make decisions. For example, children become less perception bound and more strategic in their thinking as they mature (Anderson, 2002; Gregan-Paxton & John, 1995). With respect to the web context, Rose, Rose, and Blodgett (2009) found that age is a factor that moderates youth information processing of websites. However, do younger web users report differing emotional response from the web than their older counterparts? Here, we move beyond the behavioural and cognitive indicators and explore if younger and older cohorts within the digital native segment differ in how the web makes them feel.

Methodology

Eliciting youth emotions

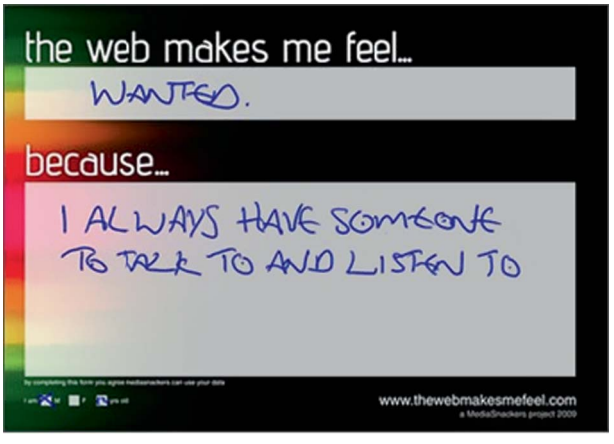
Emotion in consumer research is often measured using scales (Edell & Burke, 1987; Holbrook & Batra, 1987; Izard, 1977; Mehrabian & Russell, 1974) and a focus on differing types of emotions (Bagozzi et al., 1999; Richens, 1997). A key limitation of these scales is that they are not suitable for many application (web) or sample contexts (youth), and the instruments bias emotional responses (Bagozzi et al., 1999) as an emotion is a subjective experience, experienced from an individual point of view (Bagozzi et al., 1999; Bourne & Russo, 1998). Dean et al. (2006) compared three methods for affective emotion elicitation in participants: a traditional advantages/disadvantages method, word association, and open-ended tasks. This identified the use of open-ended methods as the most effective to elicit affective induced responses (Dean et al., 2006). Esses and Maio (2002) further argue that open-ended methods are not sample or culture specific, and are more suited for eliciting consumer emotions across contexts.

The aim of this study was to explore the emotional responses to the web of youth in their own words. Consistent with the procedure of Esses and Maio (2002), an open-ended method was adopted. Youth were asked to express how the web made them feel from their point of view, using their words. A postcard was designed in which to elicit an emotional response and the reason why this emotion was felt (Figure 1). To ensure consistency in data collection, youth samples were given the postcards in a classroom environment and shown a YouTube video about the postcard, asking them to individually detail on the postcard a one-word response to the statement: 'The web makes me feel. . .'. Participants were then asked for further explanation with an open-ended question: 'Because?' A few lines were provided to explain why. This process enabled data collection of youth emotional responses while managing for influence from the instrument and researcher as to the language used or emotional responses expressed by the participants. Gender and age were measured using closed-response items.

Participants

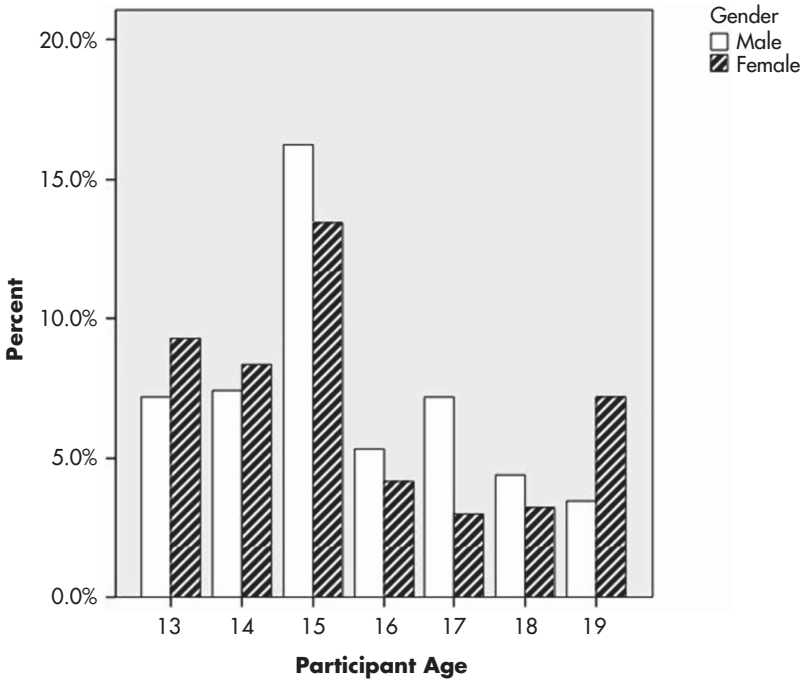
Using a purposeful sampling design, youth contacts from over 20 locations across the UK distributed cards to the target population: 13–19 year olds. Twenty-four employees of youth-facing organisations were used. Data collection took place in

Figure 1 Example of TWMMF postcard.



May 2009. A total of 787 cards were distributed, with 85% of contacts returning some or all of their cards. A total of 458 cards were returned, with 27 cards removed due to spoiling and/or incompletion. This resulted in a response rate of 54% (431 cards). Preliminary response analysis shows that from the sample of 431 usable responses, 49% were female and 51% male. Sixty-two per cent of participants were aged 15 years or under, indicating that although there was an even gender distribution, the sample was generally younger, with 38% aged 16 and over (Figure 2).

Figure 2 Sample demographics ($n = 431$).



Data coding and content analysis

All words, explanations, demographic details, postcode, and contact distributor were recorded for further coding and analysis. Latent coding by two independent coders was used to classify the content of the postcards. Latent coding is a technique used to classify the subjective meaning (themes) existent in content (Kolbe & Burnett, 1991). The 'one-word emotion' was coded for its direction of feeling and classified mutually exclusively as a positive emotion, a negative emotion, or neutral. Laros and Steenkamp's (2005) summary of the literature on how emotion was classified as positive or negative, and Richins' (1997) CES, aided this process. Words falling into neither category in the literature and not expressing an overtly positive or negative emotion were coded as neutral. Participant responses for the 'because' item were coded using thematic analysis in which each reason was categorised according to the inherent themes observed in the content. For example, the explanation 'I can let all my feelings out MSN, Facebook, Bebo all these make me feel very happy' was coded as 'can express myself' and 'social web use'.

Findings

Content, structure, and rationale for youth web emotions

Content

Over 143 emotions and 65 reasons for how the web makes youth feel were identified from the 431 cards collected (Appendix A). The top 10 words used by 13–19 year olds to express how the web makes them feel include: happy, connected, good, excited, free, entertained, bored, interested, sociable, independent. The top 50 words used are depicted in Figure 3.

To classify each emotion word expressed by youth at the subordinate level as positive or negative, Laros and Stenkamp's (2005) summary of emotion words in the literature was used as guide, in which they listed 173 negative and 143 positive emotion words (Laros & Steenkamp, 2005, p. 1439), identifying that consumers express more negative than positive emotion words. However, in this study, we found that that, overall, the web makes youth feel positive, with over 56% (80) of emotional responses expressed classified as positive, 32% (46) as neutral, and only 12% (17) as negative (Table 1). This finding supports the position that, on average, youth feel that the web makes them feel positive.

Figure 3 Tag Cloud of top 50 youth emotions.

Table 1 Superordinate level of youth web emotions (positive/neutral/negative).

Rank	Negative ☹	Neutral 😐	Positive ☺
1	Bored	Connected	*Happy*[a,b,c,d,e,f,h,i]
2	*Scared*[a,c,h,j]	Sociable	Good[c]
3	Confused[h]	Occupied	*Excited* [a,b,c,d,f,i,j]
4	*Frustrating* [a,b,c,d,f,g]	Independent	Free
5	Tired	Cool	Entertained [c]
6	Small[c]	Involved	Interested[f,j]
7	*Sad* [a,b,c,d,e,f,g,h,i]	Knowledgeable	Connected
8	Lost	Chilling	Great
9	Insignificant	Informed	Intelligent
10	Vulnerable	OK	Clever
11	Unsafe	In touch	Amazing[b]
12	Groggy	Social	Amazed[b]
13	Stressed	Free	Horny[c]
14	Naked	Intelligent	Ecstatic[a,b,c]
15	Emotional	Unbored	Curious[h]
16	Apprehensive[a,b,c]	Global	Independent
17	Denied	Normal	Chilled
18	Terrified[a,b,c]	Wanted	Alive
19	Distracted	Odd	Glad[a,b,c,d]
20	Exposed	Clever	Privileged
21	Uncomfortable	Green	*Joyful*[a,b,c,e,f,g]
22	Antisocial	Resourceful	Lucky
23	Inadequate		Empowered
24	Defeated[b]		Relaxed[c,d,f]
25	Empty[a,c]		Jolly-tastic[b]
26	Uninterested		*Loved*[a,b,c,e]
27	Cheated		Cool
28	Annoyed[a,b,c,d,e,f,h]		Informed
29	Stupid[c]		Unbored

$n = 431$. The emotion words of Richins' (1997) CES are in italics.
[a]Morgan and Heise (1988).
[b]Shaver et al. (1987).
[c]Storm and Storm (1987).
[d]Russell (1980).
[e]Frijda et al. (1989).
[f]Havlena et al. (1989).
[g]Roseman et al (1996).
[h]Plutchik (1980).
[i]Watson and Tellegen (1985).
[j]Watson et al. (1988).

A closer examination of the emotive words expressed in this study by youth for a web context was compared to words discussed in the literature on emotion (Table 2). This identified that 11 of the top 29 negative words and 15 of the top 29 positive words used by youth are consistent with the emotion words in the literature (see Laros & Steenkamp, 2005, for summary). A further 3 of the 11 negative and 4 of the 15 positive words were

Table 2 Classification of rationale for youth web emotions.

Reason classification	No.	Case %
Talk/chat with friends	69	16.10%
Learning (Q&A)	58	13.50%
Access anything anywhere (world)	46	10.70%
Information access	45	10.50%
(Re)connect with friends	40	9.30%
Social web use	40	9.30%
Playing games	34	7.90%
Variety seeking	30	7.00%
Exploring	29	6.80%
World access	28	6.50%
Have fun/entertaining	27	6.30%
Communicate/connect with others	23	5.40%
Provides freedom	20	4.70%
Website variety	14	3.30%
Listening to music	14	3.30%
Watching video	14	3.30%
Activity seeking	12	2.80%
No protection	12	2.80%
Connect with family	11	2.60%
Don't know	11	2.60%
Keep up to date on news, sports, and gossip	10	2.30%
Knowledge about web	9	2.10%
Make new friends	9	2.10%
Goal-directed/search	8	1.90%
Privacy	8	1.90%

$n = 431$.

also consistent with the work of Richins' (1997) CES. However, 18 negative and 14 positive words are unique to this sample (youth) and application (web) context. For example, the words *cool*, *chilled*, *free*, *connected*, and *empowered* were words unique to the contexts inherent in this study about youth web emotional responses.

Structure

Following the process used by Laros and Steenkamp (2005), a hierarchical structure of youth web emotions is proposed, wherein youth emotions of the web can be considered at different levels of abstractness. This hierarchy of consumer web emotions distinguishes between positive and negative affect at the superordinate level: the basic level with categories of five negative and five positive emotions, and the subordinate level with specific emotions underlying each of these categories (see Figures 4 and 5).

Rationale

The dominant explanations for why the web makes youth feel . . . is because: 'they can talk or chat with friends, find answers for questions, and can access anything, anywhere in the world' (Table 2). A review of the explanations for youth web emotions reveals the value of the social currency of the web to 13–19 year olds. For example, 'Because it allows me to communicate

Figure 4 Hierarchy of web emotions: negative web affect.

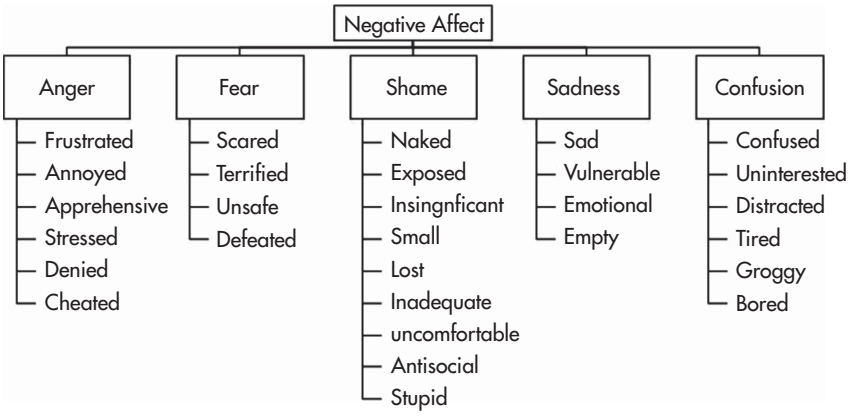
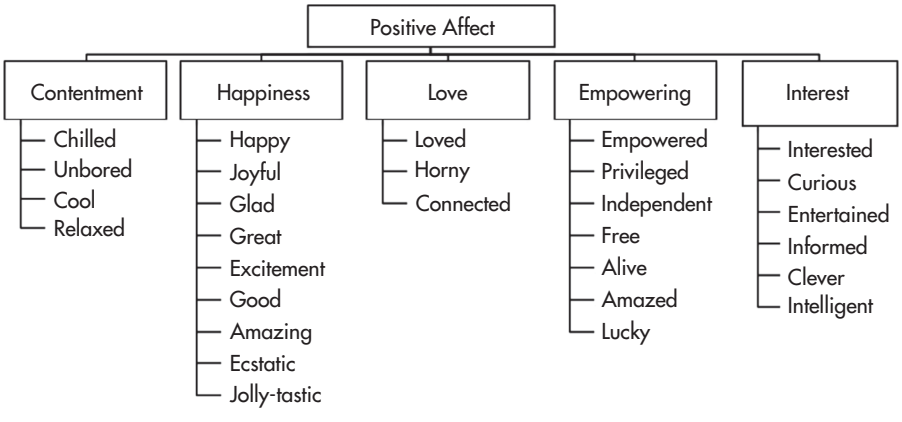


Figure 5 Hierarchy of web emotions: positive web affect.



with others' and 'Because use of the many forms of ways of communicating with friends that live far away'. Youth spend a lot of time and money on products that provide social currency. Products that enable them to hang out, chat, or connect with friends – be it drinking, the latest iPhone, spend on text messaging, or time on social-networking sites. When a product has a true social currency, the product is able to connect at the emotional level driving behaviour, appealing at a deeper level to 13–19 year olds. Further explanations also reveal information currency and concerns for the negative consequence of web usage, especially as youth get older. For example, a key concern raised was 'because the world is a slave to the web, it is a constant source of info that can't be stopped. Everyone is reliant to it [sic]. . .'

Differences in youth web emotions

Gender

We examined if youth significantly differed in their emotional responses as a result of their gender. Results of the *t*-test reveal that there is no significant difference between male ($n = 221$) and female ($n = 210$) youth in the direction of their emotional

responses to the web at a superordinate level (positive, negative, or neutral; $t = -.551$; $p = 2.26$). This result highlights that, despite reported behavioural differences in how male and female youth engage and participate with digital media and emerging research on gender and youth digital media skills, Youth web emotions do not appear to be gendered.

Age

We examined if youth significantly differ in their emotional responses according to their age. One-way ANOVA results reveal that there is a significant difference between age groups in the direction of their feelings (positive, negative, or neutral) from web usage ($F = 4.684$; $p < .01$). Closer examination of the mean scores and multi-comparison tests (Table 3) reveal that youth aged 19 years significantly report more negative emotions and less positive web emotions than 13–15 year olds. Older youth express more negative emotions such as feeling bored, scared, confused, and frustrated (Table 4) from the web than their younger natives who have less digital experience.

Discussion

Sociocultural context of youth web emotions

A hierarchical model of youth web emotions is discussed. The results suggest that the sample and application context influence the content and structure of a hierarchical model of consumer emotions. Despite consistency with some words expressed by youth to the literature on emotion (Laros & Steenkamp, 2005; Richens, 1997), more than 18 negative and 14 positive words are unique to this sample (youth) and application (web) context. This highlights the importance of digital context in the study and measurement of emotion in consumer web research. Our findings contribute to the work of Richins (1997) who emphasised that emotions are context specific. Their study highlights that emotions triggered by exposure to advertising are different from emotions triggered in product consumption situations in that they encompass different affective responses. More recently, Kwortnik and Ross (2007) identified a wide array of emotions experienced by consumers in different consumption situations. Empirical research indicates that, although in some situations consumers act towards triggering positive emotions (Kwortnik & Ross, 2007), in others, positive feelings such as pleasure become less significant (Celsi et al., 1993).

Our findings show that younger Digital Natives, moreover, have a positive emotional response to the web. However, differences in emotional responses across the age of the Digital Native are significant. This examination of youth differences in emotional responses to the web is important given the overall popular 'positive' rhetoric about Digital Natives; its use as a segmentation base grouping all Digital Natives together and emphasis of government policies towards this very complex and distinct segment. As such, when designing educational web-based e-learning resources and/or using the web in communication initiatives to reach and engage with the Digital Native born between 1990 and 1996, an overly positive emotional response would be expected. However, that said, it is important that within-cohort differences are taken into consideration. Not all Digital Natives have a positive emotional response to the web, with significant differences between younger and older Digital Natives within this six-year fixed life period.

Table 3 ANOVA and Tukey HSD multiple comparison test results: Web emotions and age.

Variable (*df*)	*n*	Mean	*SD*	*F*-value/Tukey HSD	*p*	
Age Group (6, 430)				*4.684*	*.000*	**
13	71	1.56	.691	13 × 14	1.00	
				13 × 15	1.00	
				13 × 16	.849	
				13 × 17	.085	
				13 × 18	.998	
				13 × 19	.002	**
14	68	1.53	.634	14 × 13	1.00	
				14 × 15	1.00	
				14 × 16	.944	
				14 × 17	.168	
				14 × 18	1.00	
				14 × 19	.007	**
15	128	1.57	.623	15 × 13	1.00	
				15 × 14	1.00	
				15 × 16	.754	
				15 × 17	.053	*
				15 × 18	.995	
				15 × 19	.000	**
16	41	1.39	.628	16 × 13	.849	
				16 × 14	.944	
				16 × 15	.754	
				16 × 17	.867	
				16 × 18	.997	
				16 × 19	.277	
17	44	1.20	.765	17 × 13	.085	
				17 × 14	.168	
				17 × 15	.034	*
				17 × 16	.867	
				17 × 18	.548	
				17 × 19	.959	
18	33	1.48	.712	18 × 13	.998	
				18 × 14	1.00	
				18 × 15	.995	
				18 × 16	.997	
				18 × 17	.548	
				18 × 19	.095	
19	46	1.07	.772	19 × 13	.002	**
				19 × 14	.007	**
				19 × 15	.000	**
				19 × 16	.277	
				19 × 17	.959	
				19 × 18	.095	

$n = 431$. *SD* = standard deviation. **Significant at $p < .01$; *significant at $p < .05$.

Table 4 Cross-tabulation of web emotions and age.

13 Years		14 Years		15 Years		16 Years		17 Years		18 Years		19 Years	
Happy	35% (25)	Happy	37% (25)	Happy	28% (36)	Happy	12% (5)	Connected	11% (5)	Connected	12% (4)	Connected	9%(4)
Connected	5.6% (4)	Good	6%(4)	Good	6% (8)	Free	7%(3)	Happy	9%(4)	Happy	6%(2)	Entertained	6.5% (3)
Occupied	4.3% (3)	Sociable	6%(4)	Free	6% (8)	Connected	7%(3)	*Bored*	4.5% (2)	*Confused*	6%(2)	*Confused*	4%(2)
Smart	2.8% (2)	Connected	4.5% (3)	Exciting	5.5% (7)	Independent	5%(2)	Great	4.5% (2)	Jolly-tastic	6%(2)	Excited	4%(2)
Ecstatic	2.8% (2)	Interested	3%(2)	Connected	3% (4)	Informed	5%(2)	Cool	4.5% (2)			Intelligent	4%(2)
Bored	2.8% (2)	Knowledgeable	3%(2)	Entertained	3% (4)			*Scared*	4.5% (2)			*Frustrated*	4%(2)
Glad	2.8% (2)	Great	3%(2)	Interested	2% (3)			*Insignificant*	4.5% (2)			Interested	4%(2)
Chilled/ chilling	2.8% (2)	Cool	3%(2)	*Bored*	2% (3)								
Excited	2.8% (2)			Independent	2% (3)								
				Curious	2% (3)								
				Sociable	1% (2)								
				Chilled/ chilling	1% (2)								
				Amazing	1% (2)								
				Reassured	1% (2)								
				Intrigued	1% (2)								
				In touch	1% (2)								
				Horny	1% (2)								
				Involved	1% (2)								
Totals	100% (71)		100% (67)		100% (128)		100% (41)		100% (44)		100% (33)		100% (46)

$n = 431$. Positive *Negative* Emotions; Segment % (Frequency).

Socio-technical context of web emotions

Our findings show that the chronological context of age in a web context is very important; a finding that is in contrast to the results of Selwyn's (2008) study of UK students that pointed to the continued existence of gender differences in Digital Natives learning and use of digital media. We found that at the superordinate (positive/negative) level, male and female youth did not differ in their emotional expression. However, they did differ with respect to age. In this sample, as youth age, their emotional responses become more negative and they become more cautious of web-based digital technology than younger youth in the sample. This requires further empirical validation. However, it suggests that stereotypes about gender, emotion, and technology fail to acknowledge situational, individual, and cultural variations in younger Digital Natives, that is, those born between 1990 and 1996.

The differences in emotion by age could be a result of development in the socio-technological environment over the last five years and thus differences between age groups in web experience and learning or cohort effects (i.e. older youth have a more suspicious mind-set overall). Within this time frame has most notably been the evolution and rapid adoption of Web 2.0. This has resulted in an increase in the use of web for commenting on, sharing, and co-creating content in the social graph (Bernoff & Li, 2008) and developments in the digital infrastructure within schools across the UK. As such, the socio-technical web experiences from which emotions are derived may have been very different for 16–19 year olds (born 1990–1993) than for 13–15 year olds (born 1994–1996). This could explain such differences and social reasons dominating *why* the web makes younger youth feel more positive about the web, or happy, connected, good, excited, and free.

In setting government policy about youth digital participation and literacy, and investigating further youth use, perceptions, and emotional response to digital technologies, it is evident that age is a very important factor, not just between generations of digital media users, that is, digital immigrants and Digital Natives, but also within generational cohorts. Grouping youth into one segment, the 'Digital Native', could obscure meaningful results about the influence of changes in the socio-technical context of learning and sociocultural context of consumers' emotional and psychological development and therefore emotional responses to digital media. This has implications for how we use web-based digital media and social media channels to reach and converse with differing cohorts of digital natives. Further research empirically testing the web emotion model proposed here and exploring the role of web emotion with consumer perceptions, attitudes, and usage of the web is recommended.

Emotional resonance of the web

Despite the relevance and significance of emotions in marketing, research in this field is in its embryonic stage, with very few studies using emotion as a base for segmentation (e.g. Bignè & Andreu, 2004) or exploring the socio-technical context of the web emotions. Beyond usage metrics (access and participation), demographic research (males and female use), usability studies (ease and usefulness), and other measurable (rational) aspects, our findings report the importance of one of the key motivators of web usage – emotional resonance. More often, we see parents, educators, media, researchers, and government draw conclusions about the Digital Native, their social networking, and 'always-on' lifestyles based on adoption rates and behavioural metrics. This fails to give the emotional dynamics of youth motivations

for and responses to the socio-technical environment within which they are immersed and learning new and differing digital media technologies. Our findings also confirm that, to the Digital Native, adoption and usage of digital media is not all positive in their lives, and core motives underlying emotional responses stem from the social value of digital technology, not just its technical features and or informational utility. This has implications for how we motivate and engage Digital Natives to participate in digital media educational and/or communication initiatives, focusing on the emotional resonance (e.g. to converse, socialise, play) over the utility (e.g. to learn, find, and do) of web-based digital media.

Limitations and future research

All research is not without its limitations. Limitations in this study include sample bias in favour of younger Digital Natives born between 1993 and 1996 over those born between 1990 and 1993, and the use of a non-probability convenience sample based on researcher contacts. These limitations should be noted to influence sampling error and the validity of the results reported. Furthermore, subjective bias in response solicitation from the sample and response coding and classification could also be present. Although an exploratory study, a more structured and rigorous process during data collection could limit this risk in future studies.

In broadening the scope of this research, a number of avenues for empirical work are recommended. These include empirically testing a more unified model of consumer acceptance of technology (CAT) incorporating web emotional responses (Kulviwat, Bruner, Kumar, Nasco, & Clark, 2007); the interplay of specific website contexts for learning and implications as to the emotional responses of web design (Menon & Kahn, 2002); and the interplay of web emotions as influencing website trust, loyalty, and evaluations of site quality (Jones, Spence, & Vallaster, 2008). In government policy and education, future research is recommended exploring the influence of youth web emotional responses on digital participation, engagement (Livingstone, 2003), and consumer digital literacy (Eshet-Alkali & Amichai-Hamburger, 2004). Cross-cultural and cross-country exploration of youth emotional responses to the web would provide further insight for explore the role differing cultural/country contexts may have on youth emotional responses to digital media. Further, exploring the positive Digital Native rhetoric often used to justify market segmentation and digital government policy targeted at youth markets.

Acknowledgements

The authors thank Nick Lee, Nina Reynolds, and Robert E. Morgan for their helpful comments on previous versions of the manuscript. The authors also thank the youth organisations that assisted with the data collection, and NESTA, the National Endowment for Science, Technology and the Arts, in the UK for their support.

References

Alba, J., Lynch, J., Weitz, B., & Janiszewski, C. (1997). Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing, 61*(3), 38–53.

Anderson, P. (2002). Assessment and development of executive function (EF) during childhood. *Child Neuropsychology, 8*, 71–82.
Bagozzi, R.P., Gopinath, M., & Nyer, P.U. (1999). The role of emotions in marketing. *Journal of Academy of Marketing Science, 27*(2), 184–206.
Bennett, S., Maton, K., & Kervin, L. (2008). 'The Digital Natives' debate: A critical review of the evidence. *British Journal of Educational Technology, 39*, 775–786.
Bernoff, J., & Li, C. (2008). Harnessing the power of the oh-so-social web. *MIT Sloan Management Review, 49*(3), 36–42.
Bhat, S., Bevans, M., & Sengupta, S. (2002). Measuring users' web activity to evaluate and enhance advertising effectiveness. *Journal of Advertising, 31*(3), 97–106.
Bignè, J.E., & Andreu, L. (2004). Emotions in segmentation – An empirical study. *Annuals of Tourism Research, 31*(3), 682–696.
Bimber, B. (2000). Measuring the gender gap on the Internet. *Social Science Quarterly, 81*(3), 868–876.
Bourne, L.E., & Russo, N.F. (1998). *Psychology – Behaviour in context*. New York: W.W. Norton.
Calne, D. (2000). *Within reason: Rationality and human behaviour.* New York: Vintage Books.
Celsi, R.L., Rose, R.L., & Leigh, T.W. (1993). An exploration of high-risk leisure consumption through sky-diving. *Journal of Consumer Research, 20*(1), 1–23.
Childers, T.L., Carr, C.L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behaviour. *Journal of Retailing, 77*(4), 511–513.
Damasio, A. (2005). *Descartes' error: Emotion, reason, and the human brain*. New York: Penguin.
Dean, M., Arvola, A., Vassallo, M., Lahteenmaki, L., Raats, M. M., Saba, A., & Sheperd, R. (2006). Comparison of elicitation methods for moral and affective beliefs in the theory of planned behaviour. *Appetite, 47*, 244–252.
Dennis, C., Merrilees, B., Jayawardhena, C., & Wright, L.T. (2009). e-Consumer behaviour. *European Journal of Marketing, 43*(9/10), 1121–1139.
Derbaix, C.M. (1995). The impact of affective reactions on attitudes toward the advertisement and the brand: A step toward ecological validity. *Journal of Marketing Research, 32*(4), 470–479.
Desmet, P.M.A. (2003). Measuring emotion: Development and application of an instrument to measure emotional responses to products. In M.A. Blythe, A.F. Monk, K. Overbeeke, & P.C. Wright (Eds.), *Funology: From usability to enjoyment* (pp. 111–123). New York: Kluwer.
Dube, L., Cervellon, M.-C., & Jingyuan, H. (2003). Should consumer attitudes be reduced to their affective and cognitive bases? Validation of a hierarchical model. *International Journal of Research in Marketing, 20*, 259–272.
Edell, J.A., & Burke, M.C. (1987). The power of feelings in understanding advertising effects. *Journal of Consumer Research, 14*(4), 421–433.
Eshet-Alkali, Y., & Amichai-Hamburger, Y. (2004). Experiment in digital literacy. *CyberPsychology and Behaviour, 7*(4), 421–429.
Esses, V.M., & Maio, G.R. (2002). Expanding the assessment of attitude components and structure: The benefits of open-ended measures. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (pp. 12, 71–101). Chichester, England: Wiley.
Gefen, D., & Straub, D.W. (1997). Gender differences in the perception and use of mail: An extension to the technology acceptance model. *MIS Quarterly, 21*(4), 389–400.
Gregan-Paxton, J., & John, D.R. (1995). Are young children adaptive decision makers? A study of age differences in information seeking behaviour. *Journal of Consumer Research, 21*, 567–580.
Haksever, C., Render, B., Russell, R., & Murdick, R. (2000). *Service management and operations* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
Han, S., Lerner, J.S., & Keltner, D. (2007). Feelings and consumer decision making: The appraisal-tendency framework. *Journal of Consumer Psychology, 17*(3), 158–168.
Hargittai, E. (2010). Digital Na(t)ives? Variation in Internet skills and uses among members of the Net Generation. *Sociological Inquiry, 80*(1), 92–113.

Hernandez, B., Jimenez, J., & Martín, M. (2009). Adoption vs. acceptance of e-commerce: Two different decisions. *European Journal of Marketing, 43*(9/10), 1232–1245.

Hoffman, D.L., & Novak, T.P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundations. *Journal of Marketing, 60*, 50–68.

Holbrook, M.B., & Batra, R. (1987). Assessing the role of emotions as mediators of consumer responses to advertising. *Journal of Consumer Research, 14*(3), 404–420.

Holbrook, M.B., & Hirschman, E.C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research, 9*(2), 132–140.

Izard, C. (1977). *Human emotions*. New York: Plenum.

Izard, C. (1992). Basic emotions, relations among emotions, and emotion–cognition relations. *Psychological Review, 99*(3), 561–565.

Jackson, L.A., Ervin, K.S., Gardner, P.D., & Schmitt, N. (2001). Gender and the Internet: Women communicating and men searching. *Sex Roles, 44*(5/6), 363–380.

Jayawardhena, C., & Wright, L.T. (2009). An empirical investigation into e-shopping excitement: Antecedents and effects. *European Journal of Marketing, 43*(9/10), 1171–1187.

JISC-Ciber (2008). *Information behaviour of the researcher of the future*. Ciber briefing report. Retrieved August 30, 2010, from http://www.bl.uk/news/pdf/googlegen.pdf

Jones, C., & Cross, S. (2009, September). *Is there a Net Generation coming to university?* In ALT-C 2009 'In Dreams Begins Responsibility': Choice, Evidence and Change, Manchester, UK.

Jones, M.Y., Spence, M.T., & Vallaster, C. (2008). Creating emotions via B2C websites. *Business Horizons, 51*, 419–428.

Kolbe, R.H., & Burnett, M.S., (1991). Content analysis research: An examination of applications with directives for improving research reliability and objectivity. *Journal of Consumer Research, 18*, 243–250.

Korgaonkar, P.K., & Wolin, L.D. (1999). A multivariate analysis of web usage. *Journal of Advertising Research*, *39*(2), 53–68.

Kulviwat, S., Bruner II, G.C., Kumar, A., Nasco, S.A., & Clark, T. (2007). Toward a unified model of consumer acceptance. *Psychology and Marketing, 24*(12), 1059–1084.

Kwortnik, R.J., & Ross, W.T. (2007). The role of positive emotions in experiential decisions. *International Journal of Research in Marketing, 24*, 324–335.

Laros, F.J.M., & Steenkamp, J.-B.E.M. (2005). Emotions in consumer behaviour: A hierarchical approach. *Journal of Business Research, 58*, 1437–1445.

Lederer, A.L., Maupin, D.J., Sena, M.P., & Zhaung, Y. (2000). The technology acceptance model and the World Wide Web. *Decision Support Systems*, 29, 269–282.

Liu, Y., & Shrum, L.J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person and situation for the influence of interactivity on advertising effectiveness. *Journal of Advertising, 31*(4), 53–64.

Livingstone, S. (2003). Children's use of the Internet: Reflections on the emerging research agenda. *New Media and Society, 5*, 147–166.

Margaryan, A., & Littlejohn, A. (2009). *Are Digital Natives a myth or reality?: Students' use of technologies for learning*. Retrieved August 28, 2010, from http://www.academy.gcal.ac.uk/anoush/documents/DigitalNativesMythOrReality-MargaryanAndLittlejohn-draft-111208.pdf

Mehrabian, A., & Russell, J.A. (1974). *An approach to environmental psychology.* Cambridge, MA: MIT Press.

Menon, S., & Kahn, B. (2002). Cross-category effects of induced arousal and pleasure on the Internet shopping experience. *Journal of Retailing, 78*(1), 31–40.

Morgan, R.L., & Heise, D. (1988). Structure of emotions. *Social Psychology Quarterly*, 51(1), 19–31.

Nielsen (2009a, June). *How teens use media.* Retrieved from http://www.nielsen.com

Nielsen (2009b, May). *Global faces and networked places: Report on social networks new global footprint*. Retrieved from http://www.nielsen-online.com

Nielsen (2009c, July). *Nielsen online data quick take: Kids online*. Retrieved from http://www.nielsen-online.com

Novak, T.P., Hoffman, D.L., & Yung, Y.F. (2000). Measuring the customer experience in online environments: A structural modeling approach. *Marketing Science, 19*(1), 22–42.
O'Brien, C. (2008). How the Google Generation Thinks Differently. The Times. July 9, London.
Oblinger, D.G., & Oblinger, J.L. (2005). *Educating the Net Generation*. An Educause e-book publication. Retrieved August 28, 2010, from http://www.educause.edu/ir/library/pdf/pub7101.pdf
OfCom (2010, March 26). *UK children's media literacy.* Retrieved August 28, 2010, from http://www.ofcom.org.uk/
Ono, H., & Zavodny, M. (2003). Gender and the Internet. *Social Science Quarterly, 84*(1), 111–121.
Office of National Statistic (ONS) (2008, August). *Internet access 2008: Households and individuals.* Retrieved from http://www.statistics.gov.uk
Palfry, J., & Gasser, U. (2008). *Born digital: Understanding the first generation of Digital Natives*. New York: Basic Books.
Phillips, D.M., & Baumgartner, H. (2002). The role of consumption emotions in the satisfaction response. *Journal of Consumer Psychology, 12*(3), 243–252.
Prensky, M. (2001a). Digital Natives, digital immigrants. *On the Horizon, 9*(5), 1–6.
Prensky, M. (2001b). Digital Natives, digital immigrants. Part II. Do they really think differently? *On the Horizon, 9*(6), 1–6.
Prensky, M. (2009). *H. sapiens* digital: From digital immigrants and digital natives to digital wisdom. *Innovate, 5*(3). Retrieved August 26, 2010, from http://www.innovateonline.info/index.php?view=article&id=705
Reisenzein, R., Mayer, W.-U., & Schutzwohl, A. (1995). James and the physical basis of emotion: A comment on Ellsworth. *Psychological Review, 102*(4), 757–761.
Richins, M.L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research, 24*(2), 127–146.
Rose, M., Rose, G.M., & Blodgett, J.G. (2009). The effects of interface design and age on children's information processing of web sites. *Psychology and Marketing, 26*(1), 1–21.
Russell, J.A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology, 39*(6), 1161–1178.
Ruth, J.A., Brunel, F.F., & Otnes, C.C. (2002). Linking thoughts to feelings: Investigating cognitive appraisals and consumption emotions in a mixed-emotions context. *Journal of Academy of Marketing Science, 30*(1), 44–58.
Schumacher, P., & Morahan-Martin, J. (2001). Gender, Internet and computer attitudes and experiences. *Computers in Human Behaviour, 17*, 95–110.
Seggie, S.H., Cavusgil, E., & Phelan, S.E. (2007). Measurement of return on marketing investment: A conceptual framework and the future of marketing metrics. *Industrial Marketing Management, 36*(6), 834–841.
Selwyn, N. (2008). An investigation of differences in undergraduates' academic use of the Internet. *Active Learning in Higher Education, 9*, 11–22.
Shaver, P., Schwartz, J., Kirson, D., & O'Conner, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personal Social Psychology, 52*, 1061–1086.
Stephens, N., & Gwinner, K.P. (1998). Why don't some people complain? A cognitive–emotive process model of consumer complaint behaviour. *Journal of Academy of Marketing Science, 26*(4), 172–189.
Storm, C., & Storm, T. (1987). A taxonomic study of the vocabulary of emotions. *Journal of Personal Social Psychology, 53*, 805–816.
Tapscott, D. (1998). *Growing up digital: The rise of the Net Generation*. New York: McGraw-Hill.
Tapscott, D. (2008). *Grown up digital: How the Net Generation is changing your world*. New York: McGraw-Hill.
Tarafdar, M., & Zhang, J. (2005). Analyzing the influence of website design parameters on website usability. *Information Resources Management Journal, 18*(4), 62–80.
Teo, T.S.H., & Lim, V.K.G. (2000). Gender differences in Internet usage and task preferences. *Behaviour and Information Technology, 19*(4), 283–295.

Toledo, C.A. (2007). Digital culture: Immigrants and tourists responding to the natives' drumbeat. *International Journal of Teaching and Learning in Higher Education, 19*(1), 84–92.

Tsai, C., & Lin, C. (2004). Taiwanese adolescents' perceptions and attitudes regarding the Internet: Exploring gender differences. *Adolescence*, 39, 725–734.

Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: Towards a unified view. *MIS Quarterly, 27*(3), 425–478.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92*(4), 548–573.

Westbrook, R.A., & Oliver, R.L. (1991). The dimensionality of consumption emotion patterns and consumer satisfaction. *The Journal of Consumer Research, 18*(1), 84–91.

Zeelenberg, M., & Pieters, R. (1999). Comparing service delivery to what might have been. *Journal of Services Research, 2*(1), 86–97.

Zhang, Y. (2005). Age, gender, and Internet attitudes among employees in the business world. *Computers in Human Behaviour, 21*, 1–10.

Appendix A. Youth emotions: How the web makes youth feel

Emotion	%	Emotion	%	Emotion	%	Emotion	%
Happy	22.8	Privileged	.5	Terrified	.2	Outrageous	.2
Connected	6.3	Joyful	.5	Ecstatic	.2	Un-needing	.2
Good	3.5	Tired	.5	Mental	.2	Cheated	.2
Excited	3.5	Sad	.5	Distracted	.2	Uninterested	.2
Free	3.3	Reassured	.5	Gnar	.2	Important	.2
Entertained	2.6	Intrigued	.5	Smiley	.2	Interacted	.2
Bored	2.1	Educated	.5	Nice	.2	TLC	.2
Interested	1.9	Lost	.5	Hungry	.2	Enthusiastic	.2
Sociable	1.9	Insignificant	.5	Chatty	.2	Comfortable	.2
Independent	1.4	Social	.5	Talkative	.2	Charismatic	.2
Intelligent	1.4	Lucky	.5	Informational	.2	Inspirational	.2
Chilled/Chilling	1.2	Global	.5	Magic	.2	Fascinated	.2
Confused	1.2	Vulnerable	.5	Crazy	.2	Artistic	.2
Clever	1.2	Normal	.5	Awed	.2	Creative	.2
Great	1.2	Empowered	.5	Exhausted	.2	God	.2
Scared	1.2	Relaxed	.5	Funky	.2	Popular	.2
Cool	1.2	Small	.5	Invincible	.2	Confident	.2
Occupied	.9	Jolly-tastic	.5	Convenient	.2	Safe	.2
Amazing	.9	Smart	.5	Exposed	.2	Weird	.2
Amazed	.9	Wanted	.5	Welcome	.2	Liberated	.2
Knowledgeable	.9	Loved	.5	Uncomfortable	.2	Satisfied	.2
Informed	.9	Enlightened	.2	Antisocial	.2	Addicted	.2
Horny	.9	Odd	.2	Inadequate	.2	Varies	.2
Involved	.9	Positive	.2	Dependent	.2	Annoyed	.2
Ecstatic	.7	Unsafe	.2	Accessible	.2	Stupid	.2
Curious	.7	Adventurous	.2	Defeated	.2	Talented	.2
OK	.7	Open	.2	Nosey	.2	Powerful	.2
Unbored	.7	Experienced	.2	Technical	.2	Useful	.2
In touch	.7	Denied	.2	Empty	.2	Individual	.2
Frustrating	.7	Relief	.2	Warm	.2	Laughing	.2
Alive	.5	Interesting	.2	Enriched	.2	Funny	.2
Glad	.5	Suave	.2	Engrossed	.2	Accepted	.2

$n = 431$.

About the authors

Kelly Page is lecturer in digital media marketing at Cardiff Business School. She has a PhD in Consumer Web Knowledge from the University of New South Wales in Sydney Australia. Her research explores digital media knowledge, literacy, and participation in digital media marketing. Her publications have appeared in *Psychology and Marketing*, *Behaviour and Information Technology*, *International Journal of Retailing and Distribution Management*, and *Marketing Review and Strategic Management*. In 2010, she received a 'Best Paper Award in Interactive Marketing' sponsored by the Institute of Direct Marketing (IDM) at the 2010 Academy of Marketing (AM) Conference, and, through her research, involves partnerships with organisations in the digital media, web design, and Internet marketing sectors. Kelly is a

visiting fellow in digital marketing at Cranfield School of Management, UK, and Grenoble Graduate School of Business (GGSB), France, and is currently a board member of the Academy of Marketing Research Committee (AMRC). Before relocating to the UK, Kelly worked in Australia for APESMA Management Education (now Chiefly Business School), lectured at the University of New South Wales, and worked as a consultant with The Leading Edge (TLE) Research Group.

Corresponding author: Dr. Kelly Page, Cardiff Business School, Aberconway Building, Colum Drive, Cardiff. CF103EU, UK.

T 02920 875785
E pagekl@cardiff.ac.uk

DK is founding director of the Digital Media Agency, MediaSnackers. With a background in education, communications, and media, plus a professional background in local government, he coined the term and founded MediaSnackers early in 2006 whilst working with young people and media.

E dk@mediasnackers.com

Mark Mapstone is creative director at MediaSnackers, and has a background in web design and development and professional experience with local government and youth volunteer programs in the UK.

E mark@mediasnackers.com