

Do consumers dig it all? The interplay of digital and print formats in media

Anjala S. Krishen

Department of Marketing & International Business, University of Nevada, Las Vegas, Nevada, USA

Sheen Kachen

College of Southern Nevada, Las Vegas, Nevada, USA

Michael Kraussman

Lee Business School, University of Nevada, Las Vegas, Nevada, USA, and

Zeenath Haniff

Hank Greenspun School of Journalism & Media Studies, University of Nevada, Las Vegas, Nevada, USA

Abstract

Purpose – This study aims to explore consumers' motivations in the adoption of either print or digital forms of media, given the fluctuation of trends and attitudes in magazine consumption in the USA. This paper utilizes cognitive lock-in and the power law of practice to further the understanding of digital adoption through an interdisciplinary lens.

Design/methodology/approach – In this study, initially, five focus group sessions, including 53 qualifying non-student participants randomly placed into groups of 10 or 11, were held. Next, a 2 × 2 between-subjects quasi-experiment, using 163 undergraduate students at a large public university, was conducted.

Findings – The findings show that although the digital medium is considered less expensive, more convenient and more environmentally friendly, the print medium is regarded as more familiar, personal and visual. Further, whether the media type is a book or a magazine, consumers report higher perceived value, hedonic value and attitude toward print versus digital media.

Practical implications – The potential to digitally attract and lock-in consumers in the media industry has immense implications. Individuals consume media because of fashion marketing, personal space and advertisements, among other reasons.

Originality/value – This paper contributes to existing research by uncovering qualitative and quantitative insights into media consumption through a multilayered analysis of focus group participants and a quantitative experiment. The findings indicate that both the power law of practice theory and cognitive lock-in are plausible explanations for the choice of print over digital media format.

Keywords Focus groups, Mixed methods, Hedonic consumption, Cognitive lock-in, Power law of practice, Semantic analysis

Paper type Research paper

Introduction

Be it literature or news, individuals choose to access their media in either print or digital forms; this informs not only the way they ingest information but also the way they feel about doing so. The generational or age-based “digital divide” is not as big as one might suspect, although it influences differences in media consumption. For example, a recent survey found that print publications are still used by nearly half of young adults aged 18–29 years and just over half of adults aged 30–39 years at 47 and 55 per cent, respectively (Rosenstiel *et al.*, 2014).

Approximately 6 per cent of tablet users read magazines on their tablets daily, and 23 per cent of them read magazines monthly (Mequoda, 2013). Tablets and e-readers have widely

expanded the digital marketplace, incentivizing tech companies to use innovation and persuade consumers to utilize and enjoy digital media. The durability of tablets is an important factor in deciding whether to read digital versus print media; while paper is frail and brittle, digital gadgets and devices can withstand wear and tear. However, regardless of the trends in devices, single magazine copies still have a higher selling rate in print than digital form (Patel, 2014), an indication of the stubborn grasp consumers keep on print media.

Given the fluctuation of media consumption in the USA, our study aims to explore consumer motivations in choosing to ingest either print or digital media. Our question then is whether consumers can adopt and employ e-reading in a manner similar to their previous shift to websites and e-commerce. Our inquiry indicates that the hedonic nature of magazine or book consumption will make this “lock-in” (lock-in is defined as consumers' decreased propensity to search and switch after an initial investment – see Zauberman,

The current issue and full text archive of this journal is available on Emerald Insight at: www.emeraldinsight.com/0736-3761.htm



Journal of Consumer Marketing
33/7 (2016) 489–497
© Emerald Group Publishing Limited [ISSN 0736-3761]
[DOI 10.1108/JCM-01-2015-1287]

Received 20 January 2015
Revised 5 March 2016
26 June 2016
Accepted 27 June 2016

2003) more difficult than is the case with other forms of digital consumption such as newspapers. We conduct a series of focus groups followed by a quasi-experimental quantitative study and provide a theoretical framework based on extant research. We first present a literature review and conceptual framework surrounding cognitive lock-in theory and hedonic goals. Next, we detail the qualitative focus group study followed by a quantitative experiment. Finally, we provide results, conclusions and implications.

Literature review and conceptual framework

Cognitive lock-in and the power law of practice

We base our conceptualization of e-magazine and e-book adoption on the cognitive lock-in and power law of practice theory (Newell and Rosenbloom, 1981). The power law of practice, at a qualitative level, states that when individuals practice a certain task, repetition creates higher efficiency. Higher efficiency creates higher familiarity, from which individuals tend to become locked-in to an environment (Johnson *et al.*, 2003; Breugelmans *et al.*, 2012). In the internet medium, multiple empirical studies show that cognitive lock-in, whereby there is a decreased propensity to search and switch after an initial cognitive investment, occurs when consumers learn how to traverse a website to complete a transaction. This lock-in increases their likelihood of returning to the same website again for their next transaction, even if doing so produces a sub-optimal decision (Steckel *et al.*, 2005). Electroencephalogram measurements demonstrate this phenomenon at the neurophysiological level. (Sénécal *et al.*, 2015). In this study, the authors studied the brain activity of people navigating actual websites, to measure the cognitive load, or total amount of mental effort used in a person's working memory. Results showed that participants visiting the same website multiple times exhibited a different cognitive load pattern than participants visiting different websites. Those paying multiple visits to the same site rapidly moved from controlled processing to automatic processing, requiring less mental effort, and facilitating cognitive lock-in. Likewise, Zauberman (2003) provides three experiments, showing that consumers cognitively lock-in to websites, making them more reluctant to search or switch to potentially beneficial alternatives. This loyalty, in particular on the internet, is especially ironic, given the nature of internet shopping, such as bargain hunting, comparative shopping and consumer online goals. For example, through clickstream research, Moe (2003) suggests that consumers tend to have four key goals during online transactions: browsing, searching, learning and buying. These goals are relevant when discussing the consumption of digital media because consumers tend to have one of these goals (especially in the case of e-commerce) during any given set of activities. Because three of those four goals do not involve completing a transaction (i.e. browsing, searching and learning), consumers have the freedom to carry them out with virtually no salesperson pressure or stigma associated with returning to the same shopping environment repeatedly without purchasing (Krishen *et al.*, 2013). Although digital media continues to increase in popularity even in learning environments, recent research finds that note-taking is better accomplished with paper (Mueller and Oppenheimer, 2014), and that laptops reduce learning in

classrooms (Sana *et al.*, 2013). In essence, our research posits cognitive lock-in as a potential explanation for the preference for print over digital consumption of hedonic material including magazines and books.

Hedonic versus utilitarian media consumption

Although much of the existing literature focuses on utilitarian online goals (such as searching, buying and learning), research also shows that consumers play online, often losing track of time, floating from one website to another or playing games and interacting in multiple environments (Hoffman and Novak, 2009). Although the internet was originally conceptualized as a shopping environment, more suited for utilitarian goals such as convenience and bargain hunting, research on retailing shows that hedonic pursuits can also be experienced during internet shopping (Childers *et al.*, 2001). For example, consumers may have feelings of flow and play, which can create positive subjective experiences and in turn may evoke favorable brand attitudes (Mathwick and Rigdon, 2004). Research exploring online searches for experiential products (Grant *et al.*, 2007) argues that the key determinant for understanding complex consumer behavior is information value. Applying their reasoning to the e-magazine adoption context would lead us to believe that the design of such offerings will have a large impact on their potential for cognitive lock-in.

E-tail experience offers participants more hedonic shopping value during their experience (Babin *et al.*, 2007). Hedonic shopping value relates more to shopping as an enjoyable experience, whereas utilitarian shopping value relates to the outcome of accomplishing a necessary shopping task. Previous research reveals shopping frequency, or experience in the ecommerce environment, as a moderator to preference for an e-tailer (Overby and Lee, 2006). More specifically, Overby and Lee (2006) show that hedonic value has a stronger relationship with e-tailer preference for infrequent shoppers, while utilitarian value has a stronger relationship with e-tailer preference for frequent shoppers.

As such, the literature has broadly classified products as either hedonic or utilitarian, arguing that consumer real-time interactions can create more need- or want-based goals. Even though the product itself remains constant, the purpose driving the search behavior might differ and thus trigger either hedonic or utilitarian goals. The context of the decision, then, is important in determining which types of motivation will take place. Fiore *et al.* (2005) studied image interactivity on an e-commerce website and showed that hedonic shopping value and emotional pleasure during the shopping experience increase when subjects are able to mix and match product combinations visually while making product choices.

Much like hedonic experiences on the internet, research shows that magazines provide imaginary shopping spaces where individuals, mainly women, can experientially consume. Further qualitative research discusses how magazines provide women with time and space for themselves, a rare commodity in their otherwise hectic lifestyles (Stevens *et al.*, 2003, 2007). We now set forth a focus group-based qualitative inquiry followed by a quantitative study to delve further into motivations to adopt the e-magazine format.

Study 1: qualitative inquiry

Method

With the advent of newer technological avenues for digital consumption of media and the relatively low understanding of the motivations driving consumers to read magazines in digital form, this study collects data in multiple focus group sessions using a qualitative design. Such designs are more appropriate when topics of research have been explored less in the existing literature (Drumwright and Murphy, 2009). A focus group is a critical/cultural research method with a qualitative aspect used to study social issues. By gathering information from a wide-ranging sample of people to measure attitudes or perceptions, this method researches how and why people think, feel or behave toward something (Quible, 1998). Similar to a group interview, a researcher asks questions both systematically and simultaneously to all individuals present (Morgan, 1996). The guided discussion is likely to occur in a private, comfortable setting to allow participants freedom of expression. Typically, focus group research consists of four to six groups, each containing at least 6 and up to 12 diverse individuals (Morgan, 1996). The technique has an exploratory aim, as results from the focus group may or may not statistically represent the general population. Advantages to conducting a focus group are that it captures real-life data, is flexible, has high face validity, produces quick results and is inexpensive (Quible, 1998).

Focus groups can be a supplement to quantitative methods of questionnaires and experimental studies (Lunt and Livingstone, 1996). Their ability to “quantify subjectivity” renders them effective. (Gustafson *et al.*, 1994). The qualitative approach of focus groups is instrumental in collecting consumer data through self-disclosure and social interaction in analyzing and determining collected data regarding media influence on the receptive audience (Sharts-Hopko, 2001). The method of posing candid open-ended questions to voluntary participants promotes such self-disclosure (Sharts-Hopko, 2001).

We derive the following benefits as a starting point from previous research regarding consumption in retail versus e-tail versus virtual world experiential promotion or v-tail (VWEP) environments (Krishen *et al.*, 2013): convenience, affordability, multi-functionality, portability, ease of readability and timeliness.

Study 1 Focus group script: guided discussion following open discussion:

- 1 If you could only have one type of magazine, would you prefer print or digital?
- 2 Do you own any digital devices? If so, which ones?
 - What magazine titles/genres do you read?
 - Why do you read magazines? Convenience, price, multi-functional, portability, ease, timeliness or sociability?
 - Examples: When and where do you usually read magazines? With whom do you discuss and/or share magazines?
 - What are the similarities/differences between print and digital magazines?
 - What are the similarities/differences between print and digital media?

- If you subscribe, how often? If you buy a single-copy, where do you buy them? How often?
- Why do you buy a single-copy rather than subscribe, and vice versa?
- With other entertainment media (books, newspapers), what medium do you use? Why?
- What is the biggest selling point of print or digital magazines?

Sample and procedure

We requested the focus group subjects to participate via electronic mail then asked them to contact other potential participants, creating a snowball sample. We required eligible participants to be between the ages of 18 and 65, and to be readers of either print or digital media. We also required that they could not be full-time students. We then asked qualifying participants for voluntary participation and informed them of anonymity before their placement into focus groups. We offered a prize drawing as an incentive for participation by providing an e-mail address for the chance to receive a one-year subscription to a magazine of choice. We randomly placed 53 qualifying participants into five focus groups of 10 or 11 per group. Participants in this study were aged between 18 and 45 years with average age of 23.8 years. Division of gender appeared skewed with 40 females and 13 males; however, given the target consumer of magazines, this gender distribution is appropriate (Stevens *et al.*, 2007). The majority were single; only two participants were married. About 39 (74 per cent) participants indicated current employment. A few individuals indicated mixed ethnicities: 13 per cent Asian, 15 per cent African-American, 60 per cent Caucasian and 17 per cent Hispanic. We held focus groups at a university in the western region of the USA for approximately 45 min each. Graduate students at the university served as trained moderators during the sessions. Moderators used a script containing general questions and a timeline to lead the focus group discussion. Additionally, moderators utilized a researcher worksheet to record the tally of participant responses. Two moderators were present at each focus group, alternating tasks of distributing the survey, conducting the focus group and reporting responses.

At the beginning of the focus group, participants were provided with print and digital magazines to browse before starting the study. Following the viewing, moderators asked open-ended questions loosely based on their script about why participants regularly consume magazines, why they are attracted to the medium and what retains their interest in the medium. The focus group discussions were audiotaped by a moderator and later transcribed.

Analysis and results

Upon completion of the focus group data collection, we interpret the textual data to conceptualize the key ideas derived from it, following a two-step grounded theory approach (Spiggle, 1994). In essence, the process involves iterating through the transcribed textual data along with existing theory, and forming emergent interpretation (Goulding and Lee, 2005). Following this method, we therefore focus on the two frameworks of cognitive lock-in and the power law of practice, and hedonic e-magazine

motivations, as our theory base during our exploration. Three trained researchers independently coded each comment, serving as content analysis coders and identified key themes (Reynolds and Arnold, 2000). Table I gives the key themes and sample comments.

Upon completion of the initial step, we then divided the focus group comments into two categories, either print or digital comments. To analyze key contextual differences between these two sets of comments, we utilized a lexicographic content analysis software, called Leximancer (www.leximancer.com). Previous research utilizes this machine learning technique to discover the concepts and themes within verbal data (Smith, 2007). This semantic analytic software applies to several disciplines of research, such as marketing, advertising and accounting (Campbell *et al.*, 2011; Krishen *et al.*, 2014; Rooney, 2005). Using Bayesian theory, this software analytic tool algorithmically derives concepts and themes that in general conform to those derived by qualitative researchers (Rooney, 2005). Given the exploratory nature of our inquiry, we selected automated semantic analysis because it does not rely purely on human coding of data and instead provides a process to retrieve key differences between these types of comments. Augmenting our hand coding with semantic content mapping provides

further insights (Atkinson, 1992). In summary, we take the focus group data and analyze it in two separate ways:

- 1 hand coding to derive themes (Table I); and
- 2 semantic content analysis with theme and coding diagrams (Figure 1).

Discussion

The first coding step, given in Table I, indicates 14 emergent categories. The focus group's main study shows that participants find the digital medium more convenient. Additionally, coding indicates that digital media is more effective, environmentally friendly, cheaper, durable, multifunctional and timely. Contrarily, participants claim that print media is more accessible, easier to visualize, more familiar, more professional and easier to share.

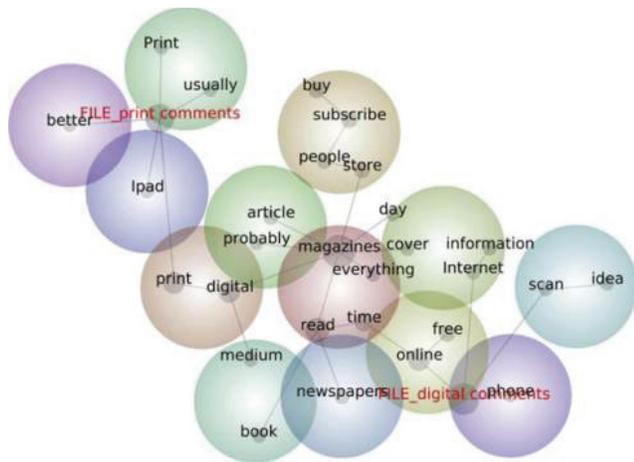
Concept mappings provide outputs, and Figure 1 gives our resultant map. The automated semantic analysis plot given in Figure 1 demonstrates that the digital versus print comments fall into distinctly different yet interconnected themes. Of interest, print comments seem to include terms such as *better*, *usually* and even *Ipad*, whereas digital ones include concepts like *phone*, *free* and *newspapers*. In addition, one interesting dichotomy presented in the concept map is *buy* versus *free*; participants mapped

Table I Study 1 sample qualitative responses of advantages^a

Advantage	Print	Digital	Sample comment
Convenience	5	8	<i>It's convenient. And if you could do something at the click of a button rather than having to drive to the store to go get it.</i>
Environmentally friendly	0	3	<i>Some people might opt for that because of the green option too. That's a real thing that people won't have to contribute to waste and stuff.</i>
Effectiveness	2	6	<i>That goes to my Kindle and stuff. Then you don't have those newspapers piling up in the center of your room and saying "Now what do I do with these?"</i>
Cost	1	4	<i>It's more convenient. I think it's a lot more cost effective. Like I read a lot, and if I have a book on my phone or my laptop, then I can read it on my phone. I can get like [. . .] like it costs a lot less than if I go out, get the book</i>
Durability	0	3	<i>I would say digital because the paper over time will get ruined and you won't have a magazine anymore</i>
Amount of information	0	1	<i>I can see more online. Like more options and more articles online. I don't want to have a billion page magazine</i>
Multi-functional	0	2	<i>There's the multimedia application. It can help you. If there's certain data and things you could calculate. And also like, sometimes videos help you. Sometimes I use videos because they're trying to show you something, how to do something</i>
Time savings	0	3	<i>Yea, yea. I'll be sitting in bed, finish a book, hit a button, I already have the next book right there, ready to read. I don't have to stop, go to the bookstore and hope it's there</i>
Organized	2	3	<i>The digital bookshelf, everything is in one place so you don't have to keep track of all your magazines if you want to refer back to an issue at all. You know exactly where it is on your iPad whereas you don't have to run around your house, looking for a magazine that you saw an article in a while ago or something</i>
Accessibility	6	3	<i>In line at the grocery store. After I check the mail. At the doctor's office</i>
Ability to visualize	6	1	<i>My oldest daughter actually wants to have the copy and have it on the bookshelf. Yea, I like to decorate my bookshelf</i>
Familiarity	3	0	<i>Print is more personal. When you go out and buy something, you feel more connected to it rather than just like, Oh, I just downloaded that on my iPad</i>
Professionalism	1	0	<i>Print has always been more professional and always will be as far as I'm concerned. There are too many errors online and articles you don't necessarily know where they got their information from</i>
Ability to share	2	1	<i>With print, I feel like you could share more and borrow. Like, I'm not just going to lend my Kindle to my friend and like "Hey, give it back when you're done"</i>

Notes: ^aItalic numbers indicates that digital has a higher value; Non-italic numbers indicates that print has a higher value

Figure 1 Semantic analytic depiction of key themes and concepts



spending money with the print medium and receiving free services with the digital medium. This difference could be considered very significant, as *subscribe* is also connected to the print medium in the concept map and the first level of coding mapped cheaper with the digital medium as well. An important difference indicated both levels of analysis shows that the digital medium is more cost-effective.

Given the findings of the qualitative study and the various reasons for consumption of digital versus print magazines, we now move to quantitative, broadening the media types and increasing our overall understanding of cognitive lock-in. The key question for Study 2 is, “Do consumers value print more than digital formatting, when consuming hedonic media?”

Study 2: quantitative experiment

Overview of study and independent measures

A 2 (media format: print versus digital) × 2 (media type: book versus magazine) between-subjects design was used to test the main hypothesis. Both independent variables were manipulated using scenarios and asking participants to imagine themselves reading a hypothetical magazine or book in either digital or print form (Appendix).

Sample, procedure and dependent measures

We offered 163 undergraduate students at a large public university in southwestern USA course credit for taking part in the study. The sample consisted of 81 males (49.7 per cent) and 82 females (50.3 per cent). Most participants were under 35 years of age (94 per cent, with 52 per cent of these between 18 and 22 years, and 42 per cent between 23 and 34 years); of the other 6 per cent of participants, 5.5 per cent were between 35 and 49 years, and 0.6 per cent (one subject) were between 50 and 59 years.

We gave subjects a series of questions to answer that dealt with their perceptions of the reading material, including the multi-item constructs of perceived value, hedonic and utilitarian value and attitudes toward the reading material. All measures used were adapted from existing seven-point Likert-type scales with well-established reliabilities. Table II shows the items for each construct, along with a Cronbach’s alpha for each measure, showing that all constructs are reliable with α values exceeding 0.90.

Table II Study 2 construct items and reliabilities

Perceived value (seven-point scale: strongly disagree to strongly agree) Adapted from Sweeney and Soutar (2001)	0.92
<i>Given that <hyperlink>, what are your beliefs regarding this reading medium?</i>	
It has consistent quality	
It is well made	
It is one that I would enjoy	
It would make me feel good	
It offers value for money	
It is a good product for the price	
It would improve the way I am perceived	
It would make a good impression on other people	
Hedonic value (seven-point scale: not at all to very much) Adapted from Voss et al. (2003) and Jones et al. (2006)	0.94
<i>Given that <hyperlink>, what are your feelings regarding this reading medium?</i>	
Fun	
Excited	
Delighted	
Thrilled	
Enjoyable	
Utilitarian value (seven-point scale: not at all to very much) Adapted from Voss et al. (2003) and Jones et al. (2006)	0.90
<i>Given that <hyperlink>, what are your feelings regarding this reading medium?</i>	
Effective	
Helpful	
Functional	
Necessary	
Practical	
Attitude (seven-point scale) Adapted from Homer (1995)	0.96
<i>What are you overall impressions of (attitudes towards) reading <hyperlink>?</i>	
Bad – Good	
Dislike – Like	
Unfavorable – Favorable	
Frequency of media type (seven-point scale) Adapted from previously validated product experience measures	0.97
<i>In a week, how many times do you engage in reading <hyperlink>?</i>	
Infrequently – Frequently	
Seldom – Often	
Never – Always	

Analysis

We conducted multiple analysis of covariance (MANCOVA) with perceived value, hedonic value, utilitarian value and attitude included as dependent variables. We used this test as protection against escalating Type I error that might occur if we analyze each variable separately. Additionally, we used three variables as covariates in our analysis: age, gender and frequency of media type, (a measure of how frequently the participants engage in reading the particular type of media mentioned in their given scenario), based on the results of the first study and the existing literature.

Results

A 2 (media format) \times 2 (media type) MANCOVA analysis with perceived value, hedonic value, utilitarian value and attitude as dependent variables yields no interaction effect (Wilks' $\lambda_{(4,153)} = 0.61, ns$). However, there are overall main effects for media format (Wilks' $\lambda_{(4,153)} = 8.11, p < 0.001$) and media type (Wilks' $\lambda_{(4,153)} = 2.85, p < 0.03$). Neither the media format \times media type interaction nor the media type variable had any visible effect on any of the dependent variables. As Figure 2 shows, media format has a main effect on three of the four dependent variables, utilitarian value being the exception: perceived value ($F(1,162) = 4.63, p < 0.05$), hedonic value ($F(1,162) = 4.46, p < 0.05$) and attitude ($F(1,162) = 15.87, p < 0.001$) such that print is higher than digital. Therefore, whether the type of media is a book or a magazine, there is a significant difference for print versus digital, such that print is significantly higher.

Conclusions, implications and future research

Much like the expansion of blogs and social media, the prevalence of e-reading and digital media expands as technology does (Colliander and Dahlén, 2011). The present study seeks to explore both consumer motivations qualitatively and quantitatively and advantages for digital versus print media consumption. Findings indicate that although most consumers do not currently read magazines in the digital form, despite ownership of digital devices, they do perceive several benefits from using digital resources. In fact, qualitative coding results show more advantages for digital consumption of magazines than for their print counterpart (Table I). At the same time, as we expand our inquiry to include books and e-books in the second

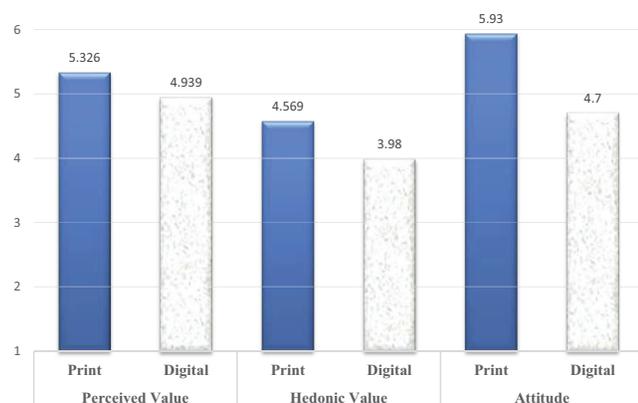
study, our findings highlight the lock-in that consumers still have with hedonic print consumption. As shown in Figure 2, consumers perceive higher hedonic value and perceived value, and have higher attitudes toward print media. We contribute to existing research, uncovering qualitative insights into digital consumption through a multilayered analysis of focus group participants while also expanding to another methodology for our second study. Our findings show that although we consider the digital medium cheaper and more convenient, we regard the print medium as more familiar, personal and visual. Research indicates that by understanding global megatrends and forces shaping the future, firms can tailor innovative products and concepts more appropriately to consumers of all types and in all locations (Florin *et al.*, 2007). As Singh *et al.* (2009) indicate, globalization, the rise of networks and open innovation are the current trends. E-magazine and e-book adoption represent a shift in the direction of such megatrends and thus should occur over time if properly facilitated by publishers. Future interdisciplinary research should investigate the cross-cultural implications of the power law of practice, cognitive lock-in and hedonic media consumption (Sangwan *et al.*, 2009). Shifting from a well-known media form, i.e. print, to another newer type, i.e. digital, for the consumption of hedonic content would constitute a somewhat radical adoption, which would require compatibility with a consumer's prior beliefs, experiences and values, as well as a shift in publishers' advertising and innovative efforts to create shifts in the market (Karahanna *et al.*, 2006).

In terms of hedonic versus utilitarian online experiences, the power law of practice would normally mean that regardless of the product or the goal, most consumers should increase cognitive lock-in with increased frequency of interaction and therefore become more efficient at reaching their goals. Furthermore, Murray and Bellman (2011) delineate between hedonic and utilitarian experiences and find that for utilitarian online experiences, lock-in increases efficiency and reduces time spent. Conversely, for hedonic online experiences, practice increases pleasure and enjoyment during the time spent, yielding emotional gains to the consumer.

Cognitive lock-in theory contributes to customer loyalty in the online environment and tends to counteract normal internet tendencies such as brand switching and price sensitivity, especially when coupled with newer technologies such as smart agents. However, an important distinction between lock-in loyalty and traditional concepts of customer loyalty is cognitive versus emotional motivations (Oliver, 1999). In particular, cognitive lock-in loyalty does not encompass motivational antecedents such as conformity, escapism or trust, and instead comes from a memory and learning perspective (Johnson *et al.*, 2003; Labrecque *et al.*, 2011). Nonetheless, the formation of cognitive lock-in and the theory surrounding the power law of practice underscores the importance of simplicity in internet design and usability. As such, the use of multiple methods of inquiry such as clickstream data coupled with behavioral measures can provide a dyadic perspective of potential digital consumption.

An important issue that future research can address deals with complexity, clutter or information overload that can occur in digital formats. More specifically, research shows that information overload is an existing issue during the choice process on websites (Krishen *et al.*, 2011) and likewise,

Figure 2 Study 2 construct values for print versus digital



complexity and clutter in advertisements are also avoidable (Zanjani *et al.*, 2011). Hence, simplicity will be key as media providers attempt to transition consumers to digital formats. Future research should study the financial implications of digital adoption, as previous research indicates that as print becomes less common and users shift to free online content, they are less willing to pay for hedonic content consumption (Sumner, 2001). Digital adoption requires the use of personal handheld devices and computers, which facilitate social media technology and sharing and mobile collaboration. Such cross-platform links should decrease cognitive lock-in and increase adoption likelihood (Sheng *et al.*, 2010). Another future research question is whether digital media might be a better platform for “co-creation”, wherein customers can become actively engaged in creating their own online experiences, thereby increasing their engagement in the process (Rowley, 2008). Different types of consumers may be more or less likely to adopt e-magazines versus print ones; Iqani (2012) discusses drifters, speed-shoppers and free-readers as three types of magazine consumers. Thus, future studies can develop a taxonomy of consumer types and their likelihood of e-magazine consumption. By combining the rich theory of the power law of practice with hedonic goals as a framework, the study forms a basis within which to understand digital versus print consumption of media. Through a series of focus groups followed by a quantitative study, we identify several advantages of digital versus print consumption, yet also find that most people would rather not read hedonic media in an online format. Movement from print to online should occur when consumers feel cognitively locked-in to the technology; such habits of use (Murray and Haubl, 2007) will require ease of entry into this relatively new medium. One major implication of our findings is that digital providers should decrease barriers to entry for consumers and increase penetration into their target markets by providing trial licenses and direct marketing promotions. When consumers enter into the hedonic digital market and begin to feel comfortable with the format, they will gradually gain practice in the environment and ultimately increase the enjoyment they gain from their interaction (Murray and Bellman, 2011). Thus, cognitive lock-in, a well-demonstrated theory, appears to form a theoretical basis for ongoing consumption of hedonic print media. The complex interaction between print and digital media is indicative not only of their unique relationship to each other but also of humanity’s broader tension with technology and innovation. The progression of digital and print usage shows the unpredictability of the industry’s ebbs and flows, with print gaining support in instances of hedonic utilization, and digital preference expressed in other instances. As literature, magazines and newspapers continue to grow and change with the evolution of technology and society, consumers’ relationship with their medium of preference will continually transform.

References

- Atkinson, P. (1992), “The ethnography of a medical setting: reading, writing, and rhetoric”, *Qualitative Health Research*, Vol. 2 No. 4, pp. 451-474.
- Babin, B.J., Gonzalez, C. and Watts, C. (2007), “Does Santa have a great job? Gift shopping value and satisfaction”, *Psychology and Marketing*, Vol. 24 No. 10, pp. 895-917.

- Breugelmans, E., Köhler, C.F., Dellaert, B.G.C. and de Ruyter, K. (2012), “Promoting interactive decision aids on retail websites: a message framing perspective with new versus traditional focal actions”, *Journal of Retailing*, Vol. 88 No. 2, pp. 226-235.
- Campbell, C., Pitt, L.F., Parent, M. and Berthon, P.R. (2011), “Understanding consumer conversations around ads in a Web 2.0 world”, *Journal of Advertising*, Vol. 40 No. 1, pp. 87-102.
- Childers, T.L., Carr, C.L., Peck, J. and Carson, S. (2001), “Hedonic and utilitarian motivations for online retail shopping behavior”, *Journal of Retailing*, Vol. 77 No. 4, pp. 511-535.
- Colliander, J. and Dahln, M. (2011), “Following the fashionable friend: the power of social media - weighing the publicity effectiveness of blogs versus online magazines”, *Journal of Advertising Research*, Vol. 51 No. 1, p. 313.
- Drumwright, M.E. and Murphy, P.E. (2009), “The current state of advertising ethics: industry and academic perspectives”, *Journal of Advertising*, Vol. 38 No. 1, pp. 83-108.
- Fiore, A.M., Jin, H.J. and Kim, J. (2005), “For fun and profit: hedonic value from image interactivity and responses toward an online store”, *Psychology & Marketing*, Vol. 22 No. 8, pp. 669-694.
- Florin, D., Callen, B., Mullen, S. and Kropp, J. (2007), “Profiting from mega-trends”, *Journal of Product & Brand Management*, Vol. 16 No. 4, pp. 220-225.
- Goulding, C. and Lee, N. (2005), “Grounded theory, ethnography and phenomenology”, *European Journal of Marketing*, Vol. 39 Nos 3/4, pp. 294-308.
- Grant, R., Clarke, R.J. and Kyriazis, E. (2007), “A review of factors affecting online consumer search behaviour from an information value perspective”, *Journal of Marketing Management*, Vol. 23 Nos 5/6, pp. 519-533.
- Gustafson, R.L., Yssel, J.C. and Popovich, M.N. (1994), “Objectionable advertising: a q-sort comparing the perceptions of baby boomers and Generation X”, paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication in Atlanta, GA, available at: https://archive.org/details/ERIC_ED375447 (accessed 17 January 2015).
- Hoffman, D.L. and Novak, T.P. (2009), “Flow online: lessons learned and future prospects”, *Journal of Interactive Marketing*, Vol. 23 No. 1, pp. 23-34.
- Homer, P.M. (1995), “Ad size as an indicator of perceived advertising costs and effort: the effects on memory and perceptions”, *Journal of Advertising*, Vol. 24 No. 4, pp. 1-12.
- Iqani, M. (2012), *Consumer Culture and The Media: Magazines in the Public Eye*, Palgrave Macmillan, Basingstoke.
- Johnson, E.J., Bellman, S. and Lohse, G.L. (2003), “Cognitive lock-in and the power law of practice”, *Journal of Marketing*, Vol. 67 No. 2, pp. 62-75.
- Jones, M.A., Reynolds, K.E. and Arnold, M.J. (2006), “Hedonic and utilitarian shopping value: investigating differential effects on retail outcomes”, *Journal of Business Research*, Vol. 59, pp. 974-981.
- Karahanna, E., Agarwal, R. and Angst, C. (2006), “Reconceptualizing compatibility beliefs in technology acceptance research”, *MIS Quarterly*, Vol. 30 No. 4, pp. 781-804.

- Krishen, A.S., Raschke, R.L. and Kachroo, P. (2011), "A feedback control approach to maintain consumer information load in online shopping environments", *Information & Management*, Vol. 48 No. 8, pp. 344-352.
- Krishen, A.S., Hardin, A.M. and LaTour, M.S. (2013), "Virtual world experiential promotion", *Journal of Current Issues and Research in Advertising*, Vol. 34 No. 2, pp. 263-281.
- Krishen, A.S., Raschke, R., Kachroo, P., LaTour, M. and Verma, P. (2014), "Promote me or protect us? The framing of policy for collective good", *European Journal of Marketing*, Vol. 48 Nos 3/4, pp. 742-760.
- Labrecque, L.I., Krishen, A.S. and Grzeskowiak, S. (2011), "Exploring social motivations for brand loyalty: conformity versus escapism", *Journal of Brand Management*, Vol. 18 No. 7, pp. 457-473.
- Lunt, P. and Livingstone, S. (1996), "Rethinking the focus group in media and communications research", *Journal of Communication*, Vol. 46 No. 2, pp. 79-98.
- Mathwick, C. and Rigdon, E. (2004), "Play, flow, and the online search experience", *Journal of Consumer Research*, Vol. 31 No. 2, pp. 324-332.
- Mequoda (2013), "The 2013 Mequoda tablet study: how American adults consume magazines on tablets?", available at: www.mequoda.com/free-reports/mequoda-tablet-study/ (accessed 17 January 2015).
- Moe, W. (2003), "Buying, searching, or browsing: differentiating between online shoppers using in-store navigational clickstream", *Journal of Consumer Psychology*, Vol. 13 No. 1, pp. 29-40.
- Morgan, D.L. (1996), "Focus groups", *Annual Review of Sociology*, Vol. 22 No. 1, pp. 129-152.
- Mueller, P.A. and Oppenheimer, D.M. (2014), "The pen is mightier than the keyboard: advantages of longhand over laptop note taking", *Psychological Science*, Vol. 25 No. 6, 0956797614524581.
- Murray, K.B. and Bellman, S. (2011), "Productive play time: the effect of practice on consumer demand for hedonic experiences", *Journal of the Academy of Marketing Science*, Vol. 39 No. 3, pp. 376-391.
- Murray, K.B. and Häubl, G. (2007), "Explaining cognitive lock-in: the role of skill-based habits of use in consumer choice", *Journal of Consumer Research*, Vol. 34 No. 1, pp. 77-88.
- Newell, A. and Rosenbloom, P.S. (1981), "Mechanisms of skill acquisition and the law of practice", in Anderson, J.R. (Ed.), *Cognitive Skills and Their Acquisition*, Erlbaum, Hillsdale, NJ, pp. 1-55.
- Oliver, R.L. (1999), "Whence consumer loyalty?", *Journal of Marketing*, Vol. 63 No. 1, pp. 33-44.
- Overby, J.W. and Lee, E.J. (2006), "The effects of utilitarian and hedonic online shopping value on consumer preference and intentions", *Journal of Business Research*, Vol. 59 Nos 10/11, pp. 1160-1166.
- Patel, A. (2014), "Digital editions saw continued growth in second half 2013", available at: www.foliomag.com/2014/digital-editions-saw-continued-growth-second-half-2013 (accessed 17 January 2015).
- Quible, Z.K. (1998), "A focus on focus groups", *Business Communication Quarterly*, Vol. 61 No. 2, pp. 28-38.
- Reynolds, K.E. and Arnold, M.J. (2000), "Customer loyalty to the salesperson and the store: examining relationship customers in an upscale retail context", *The Journal of Personal Selling and Sales Management*, Vol. 20 No. 2, pp. 89-98.
- Rooney, D. (2005), "Knowledge, economy, technology and society: the politics of discourse", *Telematics and Informatics*, Vol. 22 No. 4, pp. 405-422.
- Rosenstiel, T., Sonderman, J., Loker, K., Tran, M., Tompson, T. and Benz, J. (2014), "The personal news cycle", The Media Insight Project, available at: www.americanpressinstitute.org/publications/reports/survey-research/download-personal-news-cycle-study/ (accessed 4 March 2016).
- Rowley, J. (2008), "Understanding digital content marketing", *Journal of Marketing Management*, Vol. 24 Nos 5/6, pp. 517-540.
- Sana, F., Weston, T. and Cepeda, N.J. (2013), "Laptop multitasking hinders classroom learning for both users and nearby peers", *Computers & Education*, Vol. 62 No. 1, pp. 24-31.
- Sangwan, S., Siguaw, J.A. and Guan, C. (2009), "A comparative study of motivational differences for online shopping", *ACM SIGMIS Database*, Vol. 40 No. 4, pp. 28-42.
- Sénécal, S., Fredette, M., Léger, P.M., Courtemanche, F. and Riedl, R. (2015), "Consumers' cognitive lock-in on websites: evidence from a neurophysiological study", *Journal of Internet Commerce*, Vol. 14 No. 3, pp. 277-293.
- Sharts-Hopko, N.C. (2001), "Focus group methodology: when and why?", *Journal of the Association of Nurses in AIDS Care*, Vol. 12 No. 4, pp. 89-91.
- Sheng, H., Siau, K. and Nah, F.F.H. (2010), "Understanding the values of mobile technology in education", *ACM SIGMIS Database*, Vol. 41 No. 2, pp. 25-44.
- Singh, N., Bartikowski, B.P., Dwivedi, Y.K. and Williams, M.D. (2009), "Global megatrends and the web", *ACM SIGMIS Database*, Vol. 40 No. 4, p. 14.
- Smith, A. (2007), "Leximancer manual (Version 2.2) [Electronic version]", available at: www.leximancer.com/wiki/images/7/77/Leximancer_V2_Manual.pdf (accessed 17 January 2015).
- Spiggle, S. (1994), "Analysis and interpretation of qualitative data in consumer research", *Journal of Consumer Research*, Vol. 21 No. 3, pp. 491-503.
- Steckel, J.H., Winer, R.S., Bucklin, R.E., Dellaert, B.G.C., Drèze, X., Häubl, G., Jap, S.D., Little, J.D.C., Meyvis, T., Montgomery, A.L. and Rangaswamy, A. (2005), "Choice in interactive environments", *Marketing Letters*, Vol. 16 Nos 3/4, pp. 309-320.
- Stevens, L., Maclaran, P. and Brown, S. (2003), "Red time is me time", advertising, ambivalence, and women's magazines", *Journal of Advertising*, Vol. 32 No. 1, pp. 35-45.
- Stevens, L., Maclaran, P. and Catterall, M. (2007), "A space of one's own: women's magazine consumption within family life", *Journal of Consumer Behaviour*, Vol. 6 No. 4, pp. 236-252.
- Sumner, D.E. (2001), "Who pays for magazines? Advertisers or consumers?", *Journal of Advertising Research*, Vol. 41 No. 6, pp. 61-68.

- Sweeney, J.C. and Soutar, G.N. (2001), "Consumer perceived value: the development of a multiple item scale", *Journal of Retailing*, Vol. 77 No. 2, pp. 203-220.
- Voss, K., Spangenberg, E. and Grohmann, B. (2003), "Measuring the hedonic and utilitarian dimensions of consumer attitude", *Journal of Marketing Research*, Vol. 40 No. 3, pp. 310-320.
- Zanjani, S.H.A., Diamond, W.D. and Chan, K. (2011), "Does ad-context congruity help surfers and information seekers remember ads in cluttered e-magazines?", *Journal of Advertising*, Vol. 40 No. 4, pp. 67-84.
- Zauberman, G. (2003), "The intertemporal dynamics of consumer lock-in", *Journal of Consumer Research*, Vol. 30 No. 3, pp. 405-419.

Further reading

- Lee, S.H. and Workman, J.E. (2014), "Gossip, self-monitoring and fashion leadership: comparison of US and South Korean consumers" *Journal of Consumer Marketing*, Vol. 31 Nos 6/7, pp. 452-463.
- Ng, L.Y. and Chan, K. (2014), "Do females in advertisements reflect adolescents' ideal female images?", *Journal of Consumer Marketing*, Vol. 31 No. 3, pp. 170-176.
- Rose, S. and Samouel, P. (2009), "Internal psychological versus external market-driven determinants of the amount of consumer information search amongst online shoppers", *Journal of Marketing Management*, Vol. 25 Nos 1/2, pp. 171-190.

Appendix

Table A1 Study 2 experimental scenarios

Media format	Media type	Scenario
Print	Magazine	Suppose that you are packing for a trip and want to have some relaxing reading material for the journey. You are rushing out the door as you pack so you stop by a store on the way and pick up a few <i>magazines</i> . Once you board your plane, you take out the <i>magazines</i> and begin reading them to pass the time
Print	Book	Suppose that you are packing for a trip and want to have some relaxing reading material for the journey. You are rushing out the door as you pack so you stop by a store on the way and pick up a few <i>books</i> . Once you board your plane, you take out the <i>books</i> and begin reading them to pass the time
Digital	Magazine	Suppose that you are packing for a trip and want to have some relaxing reading material for the journey. You are rushing out the door as you pack so you grab your electronic tablet device from your desk in order to be able to read a few <i>magazines</i> . Once you board your plane, you take out the electronic tablet device and load up the <i>magazines</i> and begin reading them to pass the time
Digital	Book	Suppose that you are packing for a trip and want to have some relaxing reading material for the journey. You are rushing out the door as you pack so you grab your electronic tablet device from your desk in order to be able to read a few <i>books</i> . Once you board your plane, you take out the electronic tablet device and load up the <i>books</i> and begin reading them to pass the time

About the authors

Dr Anjala S. Krishen has a BS in Electrical Engineering from Rice University, and an MS Marketing, MBA and PhD from Virginia Tech. Dr Krishen held a variety of management positions during a 13-year career before choosing to pursue a doctorate. She is currently an Associate Professor of Marketing & International Business at the Lee Business School at the University of Nevada, Las Vegas. Her interdisciplinary research includes areas within decision-making, including heuristics and choice set design, e-marketing and social networking and database marketing. As of 2016, she has over 40 published peer-reviewed journal papers and received numerous awards including the UNLV Foundation Distinguished Teaching Award (2015) and the Barrick Scholar Award (2016). Anjala S. Krishen is the corresponding author and can be contacted at: anjala.krishen@unlv.edu

Sheen Kachen is working toward a bachelor's degree in political economy at the University of California at Berkeley. Her research interests span from digital economics to sociopolitical global trends. She plans to pursue a graduate degree in political economy and further her research career throughout her undergraduate degree at UC Berkeley.

Michael Kraussman is currently a PhD Student at the Dixon School of Accounting at the University of Central Florida. His focus is on experimental research in judgment and decision-making in business settings, particularly accounting and finance. He received his MS in Accounting from the University of Nevada, Las Vegas, and his BA in Economics from The University of Chicago.

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com