
Original Article

Technology and financial services: Marketing in times of U-commerce

Received (in revised form): 18th August 2015

Stacey Morrison

is a PhD candidate in the Division of Industrial Economics & Management at Royal Institute of Technology (KTH), Stockholm, Sweden.

Leyland Pitt

is the Dennis F. Culver EMBA Alumni Chair of Business at the Beedie School of Business, Simon Fraser University, Vancouver, Canada, and also Affiliate Professor in the Department of Industrial Marketing, Royal Institute of Technology (KTH), Stockholm, Sweden.

Jan Kietzmann

is an Associate Professor of MIS and Innovation & Entrepreneurship at the Beedie School of Business, Simon Fraser University, Vancouver, Canada.

ABSTRACT This article revisits and uses the so-called U-Commerce framework to challenge financial services marketing decision makers to consider reformulating marketing objectives in an age of ubiquitous technological networks. It outlines the 4 U's of U-Commerce – ubiquity, universality, unison and uniqueness, and revisits the original framework used to conceptualize U-Commerce. Then it identifies and describes four broad marketing objectives that financial services marketers can strive for, including amplification, attenuation, contextualization and transcension. Four broad marketing strategies can be used to achieve these objectives, namely nexus marketing, sync marketing, immersion marketing and transcension marketing. Examples specific to financial services marketing are used to illustrate and discuss these strategies.

Journal of Financial Services Marketing (2015) 20, 273–281. doi:10.1057/fsm.2015.18

Keywords: financial services marketing; U-commerce; amplification; attenuation; contextualization; transcension

INTRODUCTION

The comedian Carrie Snow notes: ‘Technology ... is a queer thing. It brings you great gifts with one hand, and it stabs you in the back with the other’ (Lewis, 1971, p. 37). This is probably truer for the financial services industry than just about any other. Banks and other financial institutions

have moved from being among the first organizations to use computing power in the early 1960's (then measured in bytes), to using cloud computing and competing alongside digital currencies such as BitCoins. Along the way, with the increasing popularity of the automatic teller machine, retail banking changed forever in the early 1980s. Customers could deposit and withdraw funds at a time and place that suited them, not the bank. Most customers realized that, at least for everyday banking, they preferred being

Correspondence: Jan Kietzmann, Beedie School of Business, 500 Granville St, Vancouver, BC V6C 1X6, Canada.
E-mail: jkietzma@sfu.ca

served by a 'hole in the wall' to waiting in line to be served by a real person. The latter years of the last millennium witnessed the rise of online banking, as customers began to access their accounts on their PCs or laptops, transfer funds, and pay bills online. More recently banking has moved to mobile devices, and now customers can not only do all the things they did on their computers, they can also deposit checks by scanning them, and make payments to friends, family members and others by simply sending them a text message.

What happened to retail banking is not the exception – on the contrary. The stock trader in their brightly striped jacket disappeared as the trading of financial products such as stocks and commodities moved online, and trades took place at the click of a mouse. Countless insurance brokers have been disintermediated as customers and insurance companies realized that they could interact directly with each other online. Entire teams of service personnel became redundant as the clients of investment product providers recognized that they could access their portfolios online with far less hassle, access just as much up-to-date information and advice, and make changes in their investments and retirements themselves and without waiting. Accountancy firms, consumer finance companies, retirement funds, life insurance companies, and real estate funds – all of these areas, and many more, have been impacted by the rise of the smart machine. The new era of financial services is driven by technology to an extent not witnessed in many other settings. But, as the Lenny Kravitz song goes, 'It ain't over til it's over', and especially when members of the younger generation trust established institutions less, and their peers and technology more, the revolution of the financial services industry 'ain't over yet' (Kietzmann and Canhoto, 2013).

In this article we contend that a number of emerging technological themes and the trends they occasion will change the range of financial services needs and services in ways that might even make the transformations witnessed in the recent past seem trivial by comparison. In order to make sense of the plethora of technologies

and innovations that are revolutionizing financial services marketing and the changes in financial consumer behavior, we use the U-Commerce framework (Watson *et al*, 2002, 2004; Junglas and Watson, 2003, 2006; see also, Nysveen *et al*, 2005; Yadav and Varadarajan, 2005; Sheng *et al*, 2008; Pitt *et al*, 2011). We describe and illustrate the notion of U-Commerce and its applications in the marketing of financial services. We pay particular attention to a general set of marketing objectives that a financial services firm might strive for, and a broad range of financial services marketing strategies that will achieve these.

UNDERSTANDING U-COMMERCE

Just as physicists such as Einstein, and artists such as Picasso and the Cubists transformed our notions of time and space, ubiquitous networks continue to change traditional spatial and temporal boundaries and their impact on business. Already before the twentieth century, trade routes evolved into rail networks that made physical trade across distances possible. Next came the roads and highways, and container shipping of the twentieth century. And while the advent of the telephone introduced massive advances in the way humans communicated with each other, these were all still limited by space and time. In the financial services industry for example, customers could only be served by firms at specific locales, and at times that suited the firms.

Two developments in the early 1990's heralded a transition. The invention of the Mosaic and Netscape browsers opened the hitherto academic and scientific domain of the Internet to a far broader audience. We began to talk of 'electronic commerce', or e-commerce. Almost simultaneously, the cell phone, previously a hugely expensive 'brick' accessible only to the very wealthy, became widely available and the preferred means of voice communication, as governments worldwide began to deregulate the telecommunications industry. Firms and their customers started to

imagine a ‘mobile commerce’ or m-commerce, or the ability of customers to interact with each other and with firms through their mobile devices (Kietzmann *et al*, 2013). A new era of financial services was born, driven by technology to an extent not witnessed in many other settings, a time when ‘banking has gone from somewhere you go to, to something you do’ (Hernaes, 2015), anytime, anywhere.

In the early years of the new millennium, scholars (for example, Watson *et al*, 2002) began to argue that networks were, and would be, everywhere: They are ubiquitous. They transcend not only the physical networks of geography, but also the electronic networks of e-commerce and m-commerce, and in so doing, change the nature of time and space. We have entered the age of U-Commerce.

In this multifaceted U-Commerce, ubiquitous networks support personalized and uninterrupted communications and transactions between firms and their stakeholders to provide a level of value over, above, and beyond traditional commerce (Watson *et al*, 2002). The authors contend that U-Commerce is best understood from four perspectives: It is not only *ubiquitous*, it is also *universal*, *unique*, and in *unison*.

Ubiquitous refers to the fact that networked computers are everywhere. Of course the great majority of these devices are not the typical computer on a desktop or laptop in a briefcase. Today, ‘computers’ are in just about every conceivable device, from hotel doors to cars, and from home appliances to wearable technologies such as watches and spectacles. They are also on networks that are everywhere and always on: Not just the Internet in its traditional sense, but cellular networks and the millions of personal wireless networks in homes across the world. From a financial services perspective, ubiquity means that customers carry their banks, insurance agencies, credit card institutions and stock brokers with them: They are always on and always available.

Universal refers to the fact that our networked computers can be used everywhere. An early example of universality in the financial services industry is that of credit card companies such as

Visa and MasterCard. Previously, travelers to other countries were limited in their ability to transact financially. Foreign exchange was complicated, difficult and costly, very limited by time and space. The old American Express Traveler Cheques were clumsy devices that attempted to overcome these problems, but were quickly replaced by Visa and MasterCard when these were accepted just about everywhere. Nowadays, the devices that financial services consumers carry with them are universal. An American smartphone owner will find that their device works as well in Europe or Asia, or any other part of the world, as it does at home. Even stored-value apps are going global – one can use a Starbucks credit deposited in one country at any Starbucks in the world. Using cloud storage software such as Dropbox, a user’s data and files are accessible from everywhere, and from just about any wired or mobile device. Watson *et al* (2004, p. 35) caution however: ‘... one marketing goal is to provide the user with ubiquitous and universal access to both devices and infrastructure. Nevertheless, another marketing principle applies: It is important to tailor information for customers so that it matches their specific location and context’. Consider, for instance, how laws in different countries protect (or not) the privacy of the consumer and the degree to which personal data can be shared and accessed by third parties.

Unique means that consumers receive information that is unique, or infinitely distinctive to them. It will depend on variables such as their physical location, time of day, current role, and their expressed or detected preferences. Most smartphones used today enable users to identify and continuously update their geographic locations. The customer of a bank who visits another city can easily find their nearest branch or ATM by simply searching for it, and use navigation tools to be directed to it by means of a map or a series of haptic pulses on a smart watch. Many insurance companies are now beginning to charge premiums for auto insurance based not on traditional variables such as age and place of

residence but on factors such as how often the vehicle is used, distances and times traveled, and the roads on which it is driven. These unique attributes are arguably far more accurate indicators of risk.

Unison means that all the various communication systems that a consumer uses are integrated so that there is a single connection point or interface. In the past few years, consumers have been able to automatically integrate their calendars, files and contact lists across the range of devices, such as desktop computers, laptops, tablets and smartphones that they use. This means for example, that, a new appointment made on a desktop computer will also immediately appear on a smartphone, or tablet. What is happening now is that this unison is now being extended to a far wider range of connected devices and appliances, such as cars, smart watches and home appliances, as we enter the age of what has been referred to as the ‘internet of things’ (for example, Lenton, 2015). From a financial services perspective, consumers are already experiencing the advantages of unison. A bank’s customer can access their account on their laptop, later make a transfer from one account to another on their smartphone, and then access their balance at any time on their smart watch.

A FRAMEWORK FOR UNDERSTANDING U-COMMERCE IN FINANCIAL SERVICES MARKETING

Although it is tempting to view the implications of U-Commerce for financial services consumers through rose-colored spectacles, and assume that everything will be better than it has been, most marketers will acknowledge that the reality might be somewhat different. New technologies offer plenty of opportunities, but also introduce new risks. The fact that the network is indeed ‘always on’ might imply the benefits of access and convenience to consumers, but ‘always on’ does not always mean ‘always good’. As Nobel laureate Herbert

Simon (1976) noted, while economists assume that individuals are rational, and will always seek perfect information in order to make perfect choices, in reality our rationality is bounded because of our limited ability to seek and process information. The key is to provide consumers with access to the right information at the right time and inform them on a need-to-know basis only to avoid causing confusion and information overload. Therefore, while U-Commerce has the ability to achieve uniqueness and ubiquity, astute marketers will realize that for consumers, there is almost a choice between the two: there are times when the individual will prefer uniqueness (time and space specificity), and other times when ubiquity (the transcendence of time and space) is more desirable.

Returning to the notion that while technology has the ability to alert consumers to everything, even that which they might prefer not to be aware of, the concepts of the *conscious* and the *unconscious*, from the Viennese school of psychoanalysis, prove useful. Consciousness can exist along a spectrum, ranging from the ultra-conscious to the unconscious. As an ultra-conscious example, consider enthusiastic investors who immerse themselves as deeply as possible into the day’s trading on a stock market, with constantly changing share prices, the ability to analyze and graph at will, and with access to the news through a number of multi-media channels. An unconscious example, on the other hand, is an insurance company’s client who might simply want to know that the monthly premiums are being deducted from her checking account, without having to receive notices and accounts, or having to physically make payments herself.

The dichotomies of uniqueness and ubiquity on the one hand, and ultra-conscious and unconscious on the other, enable us to create a 2×2 framework that financial services marketing scholars can use to explore and position research, and for practitioners to mine for ideas on strategic direction. This grid is shown in Figure 1.

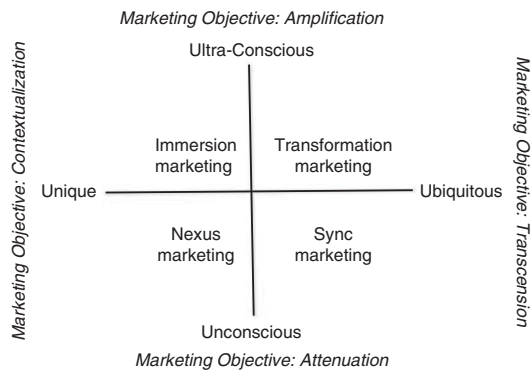


Figure 1: The U-Commerce framework (after Watson *et al*, 2002).

BROAD FINANCIAL SERVICES MARKETING OBJECTIVES IN TIMES OF U-COMMERCE

The framework in Figure 1 allows the financial services marketing strategist to identify two things: First, four broad objectives for financial services marketing in the age of U-Commerce; second, the possibility of exploring four different types of marketing to best meet consumers' expressed or unarticulated needs.

Financial services marketers should consider four broad objectives in U-Commerce. First, they might seek to *amplify*. That is, they should find ways of creating value for customers by extending or enhancing their conscious interaction with financial services. For example, an investment firm might make software available on a range of devices that enables an ultra-conscious client not only to receive live information on their portfolio, but also to perform a range of what-if explorations of the investments in that portfolio. This could include the ability to immediately access video material featuring a listed company's latest news, and interviews with senior executives.

Second, financial services marketers might create value for their customers by reducing their necessity to consciously interact with financial activities. *Attenuating* information means that where customers do not want to continuously be exposed to information, the firm finds ways of producing services 'behind the scenes'. The term 'silent commerce'

aptly describes such activities (Cata, 2006). Imagine going to a cinema, without stopping at the box office or seeing an usher. The cinema would not only detect that the patron has entered, but also, using a near-field communication chip in her credit card and a reader in the seats, it would automatically detect where she sits and charges her automatically, possibly more for premium seats. 'Continuing commerce' could be added, meaning that the patron is only charged by how much of an offering she consumes (Siegel and Shaughnessy, 1996). If the abovementioned moviegoer left after a few minutes, the cinema could automatically reimburse her for the ticket (or only charge the portion for the consumed content).

The third objective, *contextualization*, means that financial services marketers create value for customers by enabling them to focus on uniquely tailored activities that are specific to time, place and context. This requires that marketers walk a fine line between over- and under-exposing customers to information, understanding when customers will want information fed to them, and comprehending when they'd prefer to be left alone. For example, a bank's client might like to be able to instruct the bank electronically to inform them immediately when a payment from an overseas source is received on an account. On the other hand the same client might prefer not to receive a paper-based monthly statement, or even receive an emailed one. They might merely prefer to be able to access it online when *they* want to.

The final objective, *transcension*, requires that financial services marketers create value for customers by enabling them to transcend the traditional limitations of time, space and context. Customers want to be able to access a financial institution's services ubiquitously, regardless of time, place and distance (Cairncross, 1997). This might include simple services such as merely asking for information, which can simply be accessed from a Website nowadays, or seek answers to more complex questions from smart agents, digital assistants

programmed to answer a wide range of customer queries and problems.

FOUR MARKETING STRATEGIES FOR FINANCIAL SERVICES IN TIMES OF U-COMMERCE

The four distinct U-Commerce marketing objectives classified above also permit the identification of four different strategies that financial services marketers can formulate and implement, depending on the marketing situation identified in Figure 1. These strategies revolve around attenuating or amplifying marketing communication, and either enhancing time–place specificity or overcoming it.

In situations of time–space specificity, and where customers would prefer to be below conscious awareness, or unaware of phenomena, financial services marketers should pursue *nexus marketing* strategies. These types of strategies focus on making it less necessary or unnecessary for customers to interact consciously with phenomena in specific contexts. It centers on the use of time–space-specific connections (nexuses or nodes) to perform processes on behalf of the customer. Nexus marketing exploits time–space-specific connections to perform processes on behalf of the customer.

In financial services, nexus marketing has enabled a number of small players to insert themselves into market situations that were previously the domain of incumbent service providers. Traditionally, a customer wishing to park a vehicle would have to carry change, or insert a credit card to pay a relatively small amount for parking, and then worry that they do not exceed the time limit or face a fine. Pay by Phone is a smart phone app of the Paypoint.com group that enables the payment of parking with minimal fuss. The user registers a credit card with the app, as well as the registration numbers of the vehicles they own, and all this information is stored electronically. All parking garages, and even individual street-side parking meters in cities such as Vancouver,

Canada are individually numbered. The user simply enters the number on their smartphone, identifies the particular vehicle, chooses the amount of time they require, and pays for parking by clicking a button on the phone screen for the parking to start. The user does not need to worry that the time will expire, as the service sends a message (for example, to a smartphone or smart watch) shortly before the parking terminates. If they choose to, users can extend the parking simply and easily. The benefits to the user are that of not having to worry about finding coins, having to use a credit card, or worrying about expiration of parking time. Paypoint.com extracts its revenues by charging the user a very small service fee, and presumably also by earning a small commission from the owners of parking facilities. A higher level of nexus marketing, similar to the silent commerce mentioned above, requires even less interaction. Consider the already prominent, automatic payment of bridge tolls. Every time a driver passes across a bridge, a radio-frequency identification tag on his car is read by a reader on the bridge, and the toll is automatically charged to the driver's credit card, rendering redundant the once ever-present toll stops with their coin collection boxes or manned booths.

In situations where time–space is ubiquitous, and where customers would prefer to be unaware of the financial services, marketers should pursue *sync marketing* strategies. The focus here is on using networked technologies to create value for customers by eliminating tasks they would prefer not to perform, and to execute tasks for them that they would prefer to have done on their behalf. Ubiquitous network infrastructures such as the Internet, smartphones, GPS, WiFi and Bluetooth, work everywhere for the customer, as of course nowadays, so do social networks. From a marketing perspective, as Peppers *et al* (1999) note, the 'store becomes omnipresent'. Here financial services marketers work to alleviate the customer's need to perform routine chores, such as remembering passwords and pins, and signing pieces of paper.

An excellent recent example of sync marketing is Apple's 'Apple Pay' system (see www.apple.com/iphone-6/apple-pay/). The intention of Apple Pay is to move the consumer from carrying a physical wallet stuffed with cards, and the need to remember passwords and pins, to a system where their Apple iPhone or Watch will do it all for them. Apple Pay is a contact payment technology that combines an individual's credit cards, debit cards, and other sensitive-payment data into the Passbook app, and enables them to use their iPhone or Apple Watch as a wallet. A 'Near Field Communication' antenna and Touch ID on the iPhone enable the customer to pay at checkout just by holding their iPhone or Watch near a contactless reader. A subtle vibration and beep will confirm that payment has been made correctly, with no need to open an app or wake the iPhone's display. Apple Pay supports most major credit and debit cards providers and banks, currently in the United States and the United Kingdom. It works with Visa, MasterCard and American Express cards and is supported by such financial institutions as Chase, Barclays, USAA, PNC, US Bank, Bank of Scotland, Halifax, Ulster Bank, NatWest, Santander, Royal Bank of Scotland, Nationwide, HSBC, First Direct, TSB, MBNA and Lloyds Bank.

Immersion marketing is appropriate when technology delivers value to financial services consumers by extending their normal conscious experience within unique contexts. The marketer's challenge here is to stage what Arnould and Price (1993) have termed the 'extraordinary experience', a personal, memorable experience that a consumer can have with a product or a service. The term 'immersion marketing' comes from the work of Pine and Gilmore (1999) and includes procedures that enhance the consumer's conscious interaction with the phenomenal world in specific situations in such a way that everyday experiences are enhanced and expanded.

Finding ways to implement immersion marketing strategies will present real challenges to financial services marketers, given that many

of the offerings of financial services providers are complex, and frankly, difficult to make exciting and experiential. These types of experiences are much easier to stage in arenas such as tourism, leisure and dining. However, this also makes these industries far more competitive in the experiential realm, and good experiences are also easier to imitate in this sphere. So, while it might be far more challenging to stage extraordinary experiences in the financial services space, the marketer that succeeds in doing so will enjoy superlative competitive advantage. The popularity of movies set in the arena such as *Wall Street: Money Never Sleeps*, *Trading Places*, *Barbarians at the Gate*, and *Too Big to Fail*, provides evidence of the public's fascination with some of the mechanisms of the financial services industry. In an age when virtual reality devices such as Oculus Rift and Google's Project Cardboard are bringing virtual reality to the masses, it might be conceivable for astute financial services marketers to use these technologies to educate customers and stage fun, exciting, and indeed extraordinary experiences in a safe and relatively risk-free environment.

Transformation marketing in financial services will include processes that combine the enhancement of an individual's conscious interaction with the phenomenal world by transcending specific time-space locations. This type of marketing will use technology to deliver value in a way that extends a customer's normal conscious experience ubiquitously across time and space. While those who conceptualized the frameworks that help us understand U-Commerce (Watson *et al*, 2002, 2004), see the technological extensions mainly in the form of physiological enhancements such as bionic limbs and cybernetic prosthetics, we contend that these technologies will most likely come in wearable form for the financial services industry. For example, a health-insurance company might offer premium discounts to patient-customers who agree to wear Google's 'smart contact lenses' to monitor

physiological indicators such as blood sugar and certain endocrinal levels (Duffy, 2014). These can provide early warnings to wearers who can then take immediate action to avert medical emergencies that could threaten lives and also expose the insurance company to very expensive risks and payouts.

THINKING U-COMMERCE INTO THE FUTURE OF FINANCIAL SERVICES MARKETING

There is no doubt that technology has brought about fundamental changes in the marketing of financial services, and that it will do so even more in the future. Technology will change the nature of the interaction between firms and their customers, and between firms themselves as new competitors emerge, and existing players find themselves disintermediated or challenged in other ways. E-commerce changed the nature of the interaction between customers and financial services suppliers by making it possible for them to do almost everything from the comfort of their own homes or offices. M-commerce permitted customers to do so much more on the move. Yet the thinking about both e-commerce and m-commerce in financial services has been somewhat hampered by the fact that executives within the industry have tended to think of their interactions with customers in terms of traditional hierarchies of effects models. The ultimate outcome of hierarchies of effects models is purchase, and so marketers have always thought of their interactions with customers in terms of the latter's identifying a need, seeking information, evaluating alternatives and making a purchase (followed by some kind of post-purchase behavior).

We contend that in the age of U-Commerce, the commerce of ubiquitous networks far beyond the Internet and smartphones, a simpler yet more useful question to guide a financial services marketer's interaction is whether the consumer can do something 'useful' with the technologies of financial services firms. The U-Commerce

framework provides an expedient backdrop against which financial services marketers can not only understand the technologies that become part of ubiquitous networks, but also specify specific marketing objectives such as amplification, attenuation, contextualization and transcension. They can then formulate the appropriate marketing strategies to achieve these objectives, giving special attention to nexus, sync, immersion and transformation marketing.

Saying that technology is changing financial services marketing is not only true, it is also glib, and very easy to do – but it oversimplifies dangerously. It causes us to overestimate the short-term effects of technological change and to underestimate the long-term consequences. Taleb (2001) expresses this well when he says that we 'read too much into recent shallow history, with statements like "This has never happened before" but not from history in general'. The original U-Commerce framework was developed more than a decade ago, during the rapidest growth years of the Internet and the very early years of technologies such as Bluetooth. Smartphones, social networks and wearable technologies had not arrived yet, and so their impact on financial services marketing had not even been imagined. Yet the fact that the framework is a robust and enduring one means that it can be used very effectively today by the financial services marketing executive to develop objectives that can survive, and formulate and implement the marketing strategies that will attain them.

REFERENCES

- Amould, E.J. and Price, L.L. (1993) River magic: Extraordinary experience and the extended service encounter. *Journal of Consumer Research* 20(1): 24–45.
- Cairncross, F. (1997) *The Death of Distance: How the Communications Revolution Will Change Our Lives*. London, UK: Orion Business Books.
- Cata, T. (2006) Challenges and opportunities of silent commerce – applying radio frequency identification technology. *Journal of Internet Banking and Commerce* 11(1), <http://www.arraydev.com/commerce/JIBC/2006-04/cata.asp>.
- Duffy, M. (2014) Google's prototype 'smart contact lens': Measuring blood glucose levels for people with

- diabetes – VisionAware blog – VisionAware, <http://www.visionaware.org/blog/visionaware-blog/googles-prototype-smart-contact-lens-measuring-blood-glucose-levels-for-people-with-diabetes-1418/12>, accessed 8 August 2015.
- Hernaes, C.O. (2015) The sharing economy and the future of finance, <http://techcrunch.com/2015/01/03/the-sharing-economy-and-the-future-of-finance/>, accessed 9 July 2015.
- Junglas, I. and Watson, R. (2003) U-Commerce: A conceptual extension of e-commerce and m-commerce. International Conference on Information Systems (ICIS) 2003 Proceedings, Seattle WA, Paper 55.
- Junglas, I. and Watson, R.T. (2006) The u-constructs: Four information drives. *Communications of the Association for Information Systems* 17(1): 26.
- Kietzmann, J. and Canhoto, A. (2013) Bittersweet! Understanding and managing electronic word of mouth. *Journal of Public Affairs* 13(2): 146–159.
- Kietzmann, J., Plangger, K., Eaton, B., Heilgenberg, K., Pitt, L. and Berthon, P. (2013) Mobility at work: A typology of mobile communities of practice and contextual ambidexterity. *The Journal of Strategic Information Systems* 22(4): 282–297.
- Lentons, D. (2015) The internet of things. *Engineering & Technology* 10(7/8): 94–95.
- Lewis, A. (1971, March 15) Dear Scoop Jackson. *The New York Times* 37.
- Nysveen, H., Pedersen, P.E. and Thorbjørnsen, H. (2005) Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the academy of marketing science* 33(3): 330–346.
- Peppers, D., Rogers, R. and Dorf, R. (1999) Is your company ready for one-to-one marketing? *Harvard Business Review* 77(1 (January-February)): 151–160.
- Pine, B.J. and Gilmore, J.H. (1999) *The Experience Economy: Work is Theatre and Every Business a Stage*. Boston, MA: Harvard Business School Press.
- Pitt, L.F., Parent, M., Junglas, I., Chan, A. and Spyropoulou, S. (2011) Integrating the smartphone into a sound environmental information systems strategy: Principles, practices and a research agenda. *Journal of Strategic Information Systems* 20(1): 27–37.
- Sheng, H., Nah, F.F.H. and Siau, K. (2008) An experimental study on ubiquitous commerce adoption: Impact of personalization and privacy concerns. *Journal of the Association for Information Systems* 9(6): 15.
- Siegel, J. and Shaughnessy, M. (1996) An interview with Bernard Weiner. *Education Psychology Review* 8(2): 165–174.
- Simon, H.A. (1976) *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization*. 3rd edn. New York: Free Press.
- Taleb, N. (2001) *Foiled by Randomness: The Hidden Role of Chance in the Markets and in Life*. New York: Texere.
- Watson, R.T., Berthon, P.R., Pitt, L.F. and Zinkhan, G. (2004) Marketing in the age of the network: From marketplace to U-space. *Business Horizons* 47(6): 33–40.
- Watson, R.T., Pitt, L.F., Berthon, P.R. and Zinkhan, G.M. (2002) U-Commerce: Expanding the universe of marketing. *Journal of the Academy of Marketing Science* 30(4): 329–343.
- Yadav, M.S. and Varadarajan, P.R. (2005) Understanding product migration to the electronic marketplace: A conceptual framework. *Journal of Retailing* 81(2): 125–140.