Location Based Services is tracking YOU: a Netnographic perspective on challenges and opportunities from UK consumers

Extended Abstract

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Background

Technology is dramatically changing the Macromarketing field redefining market structures (how, where, when services are provided and consumed, see Harwood et al. 2018). Advances in technology include but are not limited to user interfaces (e.g. superfast internet credit to widespread Wi-Fi availability), big data and Internet of Things (IoT, see Want et al. 2018). The growth in internet use and related infrastructure, for instance has great influence on customer shopping processes and behaviour (e.g. Thaichon, 2017) allowing easy access to services 'on the go'. Such growth coincides with growth of ubiquitous technology (e.g. smart phones, smart watches) that permeate daily lives of consumers: providing relatively easy ways to gather and receive relevant marketing information (Dolbec and Fische, 2015). In particular, mobile phone traces (e.g. smartphones) have exploded, and Location Based Services (LBS) are in vogue thereby generating a lot of hype about new ways of conveniently reaching consumers. LBS is one of the IoT megatrends requiring tracking of consumers where fine grained user information is gathered when either requesting or receiving tailored location services. Other megatrend examples include Cyborgs and Artificial Intelligence applications (see Harwood and Garry, 2017- techno-service systems and Harwood et al. 2018; see Sweezey, 2017 for Airbnb and

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Tesla examples) and location aware advertising which falls under the ambit of LBS. Of the megatrends, LBS is poised to impact markets as ubiquitous technologies rapidly become embedded into consumer lifestyles/daily lives. This comes at a time when the UK is a leader in mobile adoption and mobile phone advertising with smartphone penetration rates pegged at 83% as of February 2018 (Statista, 2018). Furthermore, the UK is forth (67%) in terms of bargain seekers . We see LBS as one of the megatrends with increasing importance of targeted marketing where relevant offers (e.g. bargains such as money off coupons) are contextualised. Businesswire (2018) forecast the LBS market to be worth £104.3 billion by 2023. Nonetheless, fully harnessing the potential of LBS has its challenges. For example, macromarketing issues centred on ethics (e.g. privacy and trust). Roessler and Mokrosinska (2015) cite potential ethical quandaries (e.g. manipulation of user details) despite the unparalleled precision of ubiquitous technology. Similarly, Jiang (2015) as well as Harwood and Gary (2017) highlight concerns (e.g. legal, privacy and trust) where big data is collected. Thus, capabilities of LBS (e.g. Wi-Fi) often highlight threats posed by technology (e.g. privacy concerns). Samuleson (2008) breaks down privacy into four types; location privacy, electronic communication privacy, individual information privacy and public place privacy. More recently, Vargo and Lusch (2017) highlighted to consider public policy: trust and privacy issues issues.). This calls for deeper understanding of challenges and opportunities for various stakeholders engaging with location services (e.g. consumers and marketers). Accordingly, our research seeks deeper insights into factors that mobilise or demobilise consumer response to LBS in the clothing and fast food sectors. As such key objectives of this study are to, a) explore consumer experiences with location-based services, b) examine how respondent perceptions (value and risk) influence response to LBS and c) uncover how context may influence individual consumer response patterns.

Understanding the complex interface of LBS

Consumers are becoming increasingly sophisticated and demanding (Gronroos, 2010) and increasingly seek contextualised services. LBS is seen as a solution to deliver value when one searches for nearby points of interest (POIs) such as shops, restaurants, traffic updates, location-based advertising etc. For example, LBA where consumers use apps (e.g. retail apps) to request as well as respond to advertisements. Sector-specific apps and social platforms such as Foursquare now use geofencing to alert customers to promotions near their locality (see, Orange, 2011). LBA resonates with mobile lifestyles- consumers want to be socially connected; they use the device in versatile ways. A mobile audience insight report by Forrester

(2013) indicated that 34% of customers had used mobile devices to research products in-store. Within the LBS ecosystem, benefits (value) are based on time and convenience meaning free access in exchange for contextualised services. Schlegel et al. (2015) see context as another megatrend, a significant property of IoT systems (e.g. LBS) where location information gives customers and marketers alike unparalleled precision (Ngai et al. 2009). Cronin et al. (2000) and Bajs (2015) refer to perceived value and how it influences purchase intention. Seminal authors (see, Chen and Dubinsky, 2003) highlighted the dynamic nature of perceived value based on (a) context and (b) type of service or product: relevance in studying value in different contexts (e.g. various retail contexts). Thus, consumers may perceive value in contextualised LBS: relevant services or products delivered at the right time, place and situation (see, Tanakinjal et al., 2007 and IAB, 2014). Despite the affordances of LBS, like any technological development, LBS raises a new set of ethical dilemmas (e.g. untrustworthy organisations) given that location services track individuals and a profile is constructed based on requests made.

Concerns abound pertaining to how LBS is used and the broader implications to society (Ashworth and Free 2006). In addition, current privacy preserving techniques require fully trusted third parties offering limited privacy guarantees (Schlegel et al. 2015) despite a requirement for LBS users to continually update their location. Therefore, we observe how IoT requires connection of sensing devices to enable exchange of information yet privacy issues linked to the operation of IoT systems are yet to be fully explored (Chen et al (2017). Whilst some authors (see, Boukerche et al. 2008) have recommended using cryptography or digital signatures (NIST, 2008) to safeguard location information, implementation of these safeguards is impeded by limited resources (Chen et al. 2017). Further considerations are required given relatively new location data privacy regulation such as the General Data Protection Regulation (GDPR). GDPR focuses on data protection and individual privacy: addresses social, legal and ethical issues (Huang et al. 2018). There is therefore now a requirement for LBS providers to obtain consent before using location coordinates (see Article 6, GDPR), meeting privacy and human rights requirements (Article 7, GDPR). In addition, GDPR articles 187 and 189) serve to ensure that user privacy is protected whenever location information is used or collected (Chen et al. 2017). Despite perceived value of LBS (consumer side and tantalizing opportunities for data profiling [see Wang and Hqajli, 2011]), we see how challenges in LBS use may stem from the blurring of boundaries between contexts (private or personal), trust and privacy issues. Privacy of users is pivotal given the nature of LBS which requires recording

and tracking of peoples' sensitive information. Sweeney (2017) observes a growth in ad blocking with 6.5 billion devices adopting ad blocking software with estimated costs of £ 9.4 billion in advertising revenue by 2020. Nevertheless, multiple sensors (devices) avail opportunities for LBS stakeholders to learn about consumer habits, lifestyles and decision making (profiling). With future IoT predictions signaling en masse data collection (e.g. daily movements, activities and e-lifestyles) privacy trust issues are projected to increase: urgent need for LBS that preserve user privacy (Chen et al. 2018). In addition, emergent services (e.g. LBS) potentially exploit vulnerable people who may lack awareness of capabilities of data mining and tracking systems (Busch, 2015): arouse ethical concerns. Therefore, our paper seeks to explore affordances and constraints of location-based services in retail weighing up value and risk narratives using the UTAUAT framework (Venkatesh et al. 2003) as recommended by Zhou, 2012).

Design/Methodology/Approach:

Whilst most LBS studies rely on positivist measures (see Bruns and Jacob, 2014), our study sought to empirically explore consumer perceptions (value and risk) of LBS. Capturing emergent and complex services using traditional methods can be challenging (Harwood and Gary, 2017) hence our study uses a netnographic approach: capturing consumer behaviour (decision making, intention and response) in native environments where value is derived from capturing contemporary consumer culture (Kozinets, 2008 and 2015). A mono method qualitative design was adopted and 85 threads from 4 websites were sampled. Piloting of relevant sites was conducted over a period of three weeks resulting in 4 websites that contained rich threads on LBS.

Research Findings

Despite LBS being in infancy and muted lack of awareness (σee Zhou, 2012) results emerged in our study pointing to rich consumer experiences with location services. For example, usefulness where location services offer access to contextualised services in transit. Second, consumers were now blocking irrelevant services: awareness a prerequisite to behavioural intention to adopt LBS. Thus, indifference in the absence of opt in and opt out options were concerns over perceived risk (e.g. data breaches, selling of data and the covert nature of

services, spam: trust transfer process – see Yang and Chen, 2015). Third, use of incentives (discounts and coupons) has a higher propensity to trigger consumer response.

Conclusion and Implications

As location-based services continue to increase in sophistication, there is need for more theoretical models that offer good explanatory potential (Pardamean, and Susanto, 2012) to understand consumer response further. Our research develops further research by seminal authors (e.g. Zhou, 2011, Yu et al. 2013) providing richer insights into specific privacy concerns when using location services.

Keywords: Location services, location privacy, context

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