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Silver surfers adopting and using Facebook? A quantitative study of Hertfordshire, UK applied to organizational and social change

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ABSTRACT

With an ageing population that is on the increase, there are many older adults still in employment well past their retirement age. Currently, technological developments in the form of Online Social Networks (OSN[1]) are also impacting society and organizations alike, with organizations searching for ways to cope with these changes. The aim of this research study is to investigate the factors affecting the likelihood of adoption and use of OSN within an older population. Using an online questionnaire, empirical data was drawn from Hertfordshire, a vicinity in the United Kingdom, and analysed using the Partial Least Squares method. The findings revealed that — in a household situation — older individuals adopt internet technologies if they have 'anytime access' to internet capable devices, a fast reliable internet connection, the support of their family and friends, as well as an apparent provision of privacy. For organizations, these findings indicate that the provision of a technical/trusted support department is essential, as is the provision for broadband and reliable internet connections. For academia, this research identifies factors that have been developed using theoretical concepts that will impact older adults' adoption and use of new technologies, but requires further research into whether these factors will impact a cross generation of workers in the organization.

1. Introduction

Rapid advances in Information Technology (IT), which includes internet-capable technologies, combined with widespread household access to super-fast and reliable broadband, have paved the way for Online Social Networks (OSN) to become an increasingly important and popular venue for technology adoption (Peng and Mu, 2011; Niehaves and Plattfaut, 2013). OSN such as Facebook, LinkedIn and Twitter have penetrated society and organizations and become important for individuals' daily lives (Greengard, 2011). OSN are seen as pertinent for society since they are a form of digital technology facilitating daily tasks; thereby enabling demographic groups of users, such as older adults, to remain independent for longer (Schaefer,

2008). By doing so, updates and innovations on OSN, e.g. medical advances and information, can be obtained, implemented and increasea person's quality of life (Shneiderman et al., 2011). As a result of OSN's revolutionary business innovations and business models (Tapscott and Williams, 2010; Shneiderman et al., 2011) OSN have become increasingly important as they enhanced citizens' participation on the internet and economic revitalization in austerity times.

When considering the adoption and use of OSN, socio-demographics of user statistics reveal that younger adults (50 years and below) are the majority of users while older adults (50+ years) remain the minority adopters of leading OSN such as Facebook and Twitter (Lyons, 2010). Large numbers of studies have been undertaken on older and younger adults, where the emphasis has been on the social capital divide that exists between the older and younger population's internet and computer use, and electronic commerce (Pfeil et al., 2009; Wagner et al., 2010). For example, a comparison between different age and gender groups (Passyn et al., 2011) found

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   [1] Throughout this paper 'OSN' is used to refer to Online Social Networks — in plural.

that different age groups (under 35 vs. 35–50 vs. over 50) have diverse perceptions towards online shopping. Fewer studies have been undertaken specifically on older adults above 50 years old (Lian and Yen, 2014) — making a case for a study on older adults to be conducted.

Due to advances in medicine and quality of life, countries around the globe are facing the prospect of ageing populations (UN DESA, 2007; Jeavans, 2004). Changes in legislation, care and quality of life for older adults have led to changes in the work place and society, where bridge employment and older entrepreneurs are on the increase. Bridge employment occurs after an individual's retirement from a full time position, but before the individual's permanent withdrawal from working life (Kim and Feldman, 2000). This has led to older adults being considered to be a wealth creating and affluent group of society which impacts the consumer market. This affluence in turn affects the performance and profitability of organizations (Moschis et al., 2004; Censky, 2011). For example, firms operating in the health services industry could benefit by having older consumers online, as online seniors tend to search for information related to medical products and services (Fox, 2004).

Since older adults are consumers and also users of technology, there has been an emergence of novel terms such as 'silver surfers'. In ICT research silver surfers are the 50 years plus age group (NetLingo, 2012). The 50 years cut off point important in geriatric research because 'a person is not old until 50 years as …relatively little decline in performance occurs until people are about 50 years old' (Albert and Heaton, 1988).

For organizations, OSN are viewed as an easy and efficient way to build and maintain offline social networks in an online manner (O'Murchu et al., 2004). Although OSN benefits are clearly evident within society and the public sector, private sector organizations are slower at adopting them (Efi mova and Grudin, 2008). This in turn has led to fewer research studies investigating their acceptance and use in organizations (Archambault and Grudin, 2012). Previous research findings on organizations and novel technologies suggest that when new technologies such as email, instant messaging, and employee blogging were first introduced and used, they were mainly employed by students and consumers to support informal interaction (Archambault and Grudin, 2012). Managers, who focused more on formal communication channels, often viewed them as potential distractions (Efi mova and Grudin, 2008). A similar situation emerged with OSN where initially some organizations viewed OSN as distractions and banned the use of public sites such as Facebook within the organization (Sophos, 2007; Wired, 2009). However, this view is slowly changing and organizations such as Microsoft and IBM are realizing the importance of OSN and making use of OSN within the workplace (Archambault and Grudin, 2012; Santelli et al., 2010; Steinfield et al., 2009; Robert Half Technology, 2011).

As both OSN and ageing populations are increasing on a daily basis, and both these changes are impacting large and small organizations this research study investigates whether and to what extent the technological development of OSN, particularly Facebook, is being adopted and used by an older adult population in households of a UK county.

Due to the advanced telecommunications infrastructure and understanding of the potential of internet enabled technologies an organization can also be considered to be a microenterprise (Venkatesh and Davis, 2000). Few studies have investigated the reasons and motivations underlying older adults' adoption or non-adoption of ICTs such as OSN in a household. Acknowledging that both OSN and older adults constitute important changes for society and organizations alike, and that OSN potential cannot be obtained without their wider proliferation, this study addresses these gaps with the aim: *To investigate the factors affecting the likelihood of adoption and use of OSN within an older population.*

2. Theory building and hypothesis development

Research on the adoption of IT within the older adult population, employs two main theories: the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003) and the Model of Adoption of Technology in Households (MATH) by Niehaves and Plattfaut (2013).

The concept of technology acceptance and particularly *individual* technology acceptance was introduced by Davis (1986, 1989) in the form of the Technology Acceptance Model (TAM). TAM has since been subject to subsequent theory development by Information Systems (IS) researchers such as Venkatesh and Davis (2000). In UTAUT Venkatesh et al. (2003) presented constructs from eight competing theoretical models, including TAM. The authors provided evidence that in the case of IT adoption, their model has the greatest explanatory power compared with other models, including the theory of reasoned action (RA) (Fishbein, 1967; Fishbein and Ajzen, 1975); the TAM (Davis, 1989) and the theory of planned behaviour (TPB) (Ajzen, 1991; Taylor and Todd, 1995a, 1995b).

While UTAUT focuses on technology adoption in both the workplace and private environments, the MATH was created by Venkatesh and Brown (2001) to explain the adoption of technology — in their case, personal computers (PC) within the household and private environment. Both UTAUT and MATH are used to explain IT adoption in private, non-mandatory settings. The difference lies in the focus of the two theories. UTAUT explains IT adoption only in organizational settings, while MATH investigates the adoption of IT in private and voluntary settings.

As the older adult population is largely found in private, voluntary settings that may operate like organizations, MATH is used much more to understand and describe technology use amongst the elderly. It is also used in this study. However, we view this research as also applicable for understanding the adoption of IT in organizations, since due to the advances in medicine and the quality of life, microenterprises are being operated in households that consist of older adult entrepreneurs. Currently households are being proliferated by internet enabled technologies such as broadband, which allows households to proffer e-business capabilities. Due to such offerings, households are also viewed as organizations (Ayyagari et al., 2007). Previous research revealed that: "*The contemporary postmodern workplace blurs boundaries between home and work and thereby challenges the locus of self-identity. Professional employees are now expected to conduct business away from an established place of business with the aid of cell phones, laptops, and internet technology.*" (Tian and Belk, 2005: 297).

2.1. The conceptual framework MOSN

Our conceptual framework for this research is referred to as the Model of Online Social Networks (MOSN) and consists