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Smart Phone Activity:
Risk-Taking Behaviours and Perceptions on Data Security among Young People in England

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ABSTRACT

This article reports on a study of mobile phone usage by young people in the UK tertiary education sector. Responses from 397 respondents were analysed to explore the attitudes of young people towards data security issues for mobile devices. Results from the comparative analysis found that there were significant differences in data security risk concerns across ethnic groups. Those who reported extrovert personalities tend to take more risk in data security issues. In addition, young people who were 'technology savvy' were less likely to expose themselves to risk to data security issues through the use of free wifi and access of installed applications. It is argued that there is an urgent need for greater education and awareness of Information and Communication Technology (ICT) to reduce risk of cybercrime. The research reported here is part of a wider study looking at the overall communications and mobile phone usage of young people and taken as a whole, the paper contributes to this increasingly important area of Information Technology.

Keywords: *Data Security Issues, Information and Communication Technology (ICT), Information Technology (IT), Mobile Phone, Technology Savvy*

1. INTRODUCTION

In the last decade, there has been a rise in mobile phone ownership in the United Kingdom, particularly among young people. In the year 2000, it was found that 17% primary school children and 58% of secondary school children have their own mobile phones (Office of National Statistics, 2002). More recently the OFCOM Communications Market Report for 2012 reported 66% of those aged 16-24 possessed a smart phone. The same group also reported that they are most likely to choose the mobile phone as the medium they would miss most (40%).

The value of mobile phones can partly be explained by how mobile phone based communication has become embedded in youth culture

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bringing out new spaces for social interaction among young people (Green, 2002; Jones, Williams, & Fleuriot, 2003). Accompanying these changes, mobile phones have also begun the process of modifying behaviour towards risk-taking, and in particular the risks associated with a possible lack of understanding towards data security implications associated with mobile phones.

This article reports on a research study that examined young peoples' adoption of mobile technology, particularly smart phones (those with Internet access), to support their communication needs. The research focuses on the use of mobile technology in the everyday lives of young people studying at Universities in the United Kingdom. While the research had a range of research questions reflecting the broadness of the original brief, this paper reports on the following:

To determine linkages between mobile communications, risk-taking and at-risk behavior among young people.

In this article, risk-taking is broadly interpreted as risk-taking concerned with information security. For the purposes of this paper we define information (and data) security as: "The safeguarding of an individual's data from unauthorised access or modification to ensure its availability, confidentiality and integrity" (http://ishandbook.bsewall.com/risk/Methodology/IS.html). We deliberately narrow this definition of risk to focus on information security. The wider use of risk referred to range of risk-taking behavior such as the sending of offensive texts, driving whilst texting which are not relevant to this paper. Thus the paper will present findings on the attitudes of young people towards issues of information security related to their communications based activities on mobile devices.

Research reporting on mobile phone usage amongst young people is now widely available. There have been studies conducted in Australia exploring models of technology adoption (Carroll, Howard, Vetere, Peck, & Murphy, 2002), East Asia (Mitomo, Someya, & Sanbonmatsu, 2006) and the USA for example (Kurkovsky & Syta, 2010). The latter is an example that specifically explored issues around data / information security.

Research that explores behaviour of young people in their use of mobile technology continues to increase in importance. Thus this study contributes current data on the use of the mobile phones in the context of Internet related activity and presents findings that note significant differences towards information security between different demographic groups. These distinctions have potential marketing, technical and policy implications to those involved in the eco-systems around mobile technology.

The remainder of the article is organised as follows. Section 2 briefly reviews previous work that has explored how young people utilise mobile technology. In particular, the issue of data or information security is considered within the context of established theoretical models such as the Technology Acceptance Model (Davis, 1989; Kim & Garrison, 2009). Section 3 develops the research methods utilised to explore the question above. Section 4 presents both our descriptive statistics and an analysis using correlations for understanding the relationship of young people, their behaviours and awareness towards data security. The paper is concluded with final remarks.

2. RELATED WORK

The young people surveyed in this research represent the so-called 'digital natives' (Prensky, 2001), that generation of young people born after 1985 and possessing sophisticated knowledge of information technology having grown up surrounded by electronic gadgets and the Internet. Importantly, despite the wide availability of a preponderance of electronic devices, the smart mobile phone providing access to a range of services (voice, text, email, social networks, rich media) and ubiquity of network connectivity means that it has become the device of choice for young people (Kurkovsky & Syta, 2010).