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Editorial

With more and more governments and agencies relying on digital communication, digital exclusion is a real risk. In 2012, the Office for National Statistics (ONS) in the UK reported that 21 million households in Great Britain (80%) had Internet access. Internet access is also widely available in public libraries and cybercafes, yet the ONS figures show that more than seven million adults in Britain have never used the Internet. This 'web illiteracy' is not only a loss to the UK economy (£3 billion per year, according to analysts Booz & Company) but is also a problem for those who wish to promote e-government.

The UK is one of the most connected countries in the world. The UK has overtaken Japan in mobile Internet use, according to a new report from the UK media regulator Ofcom. The research compared data across 17 countries, including the USA, China, India, Russia, Brazil, Sweden, France and Germany. UK Internet users spent an average of 728 minutes (more than 12 hours) a week online in total.

For many of us, it is impossible to imagine living without constant access to the Internet and the digital world. Yet, digital exclusion is a reality for millions around the world. The papers in this issue of *Behaviour & Information Technology* therefore deal with technology adoption and digital living and include studies on security and poor accessibility – both major barriers to widespread technology use.

Accessibility is a particular challenge. Many people still regard making their websites accessible as a necessary but unwelcome chore. Too few see the commercial benefits of attracting the millions of people who find most websites inaccessible and unusable.

The United Nations Convention on the Rights of Persons with Disabilities, which came into force on 3 May 2008, was a major milestone in accessibility. The convention included a number of detailed mandates relating to accessible and assistive information and communication technologies (ICTs). Article 9 indicated that all UN states shall take appropriate measures to guarantee to persons with disabilities access, on an equal basis with others, to the physical environment; to transportation; and to information and communications, including ICTs and systems.

The most important point in my view is that the convention gives disabled people equal rights – so inaccessible websites are not just unusable and annoying, they breach people's human rights. Yet, they are still all too common, especially in e-government systems, as Iyad Abu-Doush and his colleagues report later in this issue.

The first set of papers looks at technology adoption and starts with the impact of fraud as a factor discouraging people from adopting new technologies.

Technology adoption

Fraud is a huge global problem and many see biometric technology as a powerful tool for defeating unauthorised access to systems and services. Sookeun Byuna from the School of Business, Kwangwoon University, Seoul, Republic of Korea, and Sang-Eun Byun from the Department of Consumer Affairs, Auburn University, Auburn, Alabama, report a study which investigates consumer perceptions of the benefits and risks in using biometric technology. They surveyed customers of an American bank that has utilised fingerprint technology at its ATMs. They found that enjoyment was the most salient perceived benefit for using fingerprint ATMs for both current users and potential adopters. The authors suggest that banks should highlight intrinsic values, such as the novelty of biometrics, to motivate the use of the technology. However, banks also need to educate users about the security benefits of financial transactions using this technology. Current users were also concerned about information privacy risk when using the fingerprint ATMs. The authors recommend that there is an urgent need for internal policies to protect personal biometric data from identity theft or illegal use to encourage continuous usage by the current users.

Free and open source software (FOSS) may be unwelcome to some areas of the proprietary software industry, but it has helped some firms deliver efficient and proficient processes and position themselves in global supply networks. Matthew Mount and Kiran Fernandes from the York Management School at the University of York, UK, investigated FOSS adoption in firms operating in high-velocity environments and identified factors that have an impact on the adoption process. The study offers an insight into the FOSS adoption process for practitioners and for academics. The results indicate that the attitude of managers to performance, data regulation and facilitating conditions are important determinants of a firm's behavioural intention to adopt and use FOSS. They also found that influences from social and organisational domains had little effect on a firm's intention to adopt FOSS solutions.

Eija Korpelainen and Mari Kira from the Department of Industrial Engineering and Management at Aalto University

School of Science, Finland, also investigated information technology (IT) adoption using the activity system model. They conducted qualitative semi-structured interviews with 39 employees in three organisations. The results showed that most of the problems were identified in the social context and only one-fifth of the problems were related to the employees' lack of skills and competencies in using the IT systems. A practical implication is that the successful adoption and use of an IT tool requires interventions and innovations that also address the level of social media in use. The authors believe that the activity system model proved to be a useful, yet rather complex tool for describing and analysing IT adoption problems.

Tao Zhou from the School of Management, Hangzhou Dianzi University in China, reports a study on the adoption of mobile TV, drawing on flow theory. The results indicated that perceived ease of use, access speed and content quality had significant effects on the flow experience, which involves three dimensions: perceived enjoyment, perceived control and attention focus. In turn, flow experience affects perceived usefulness and usage intention. The author concludes that service providers need to present an engaging experience to users in order to facilitate their adoption and usage of mobile TV.

Digital living

The accessibility of e-government services is a worldwide problem. Iyad Abu-Doush from the Computer Science Department, Yarmouk University; Ashraf Bany-Mohammed from the CIS Department, Middle East University, Amman; Emad Ali from the Special Education Department, Jordan University, Amman; and Mohammed Azmi Al-Betar from the School of Computer Sciences, Universiti Sains Malaysia, report a detailed study of e-government websites in Jordan. They evaluated a set of e-government websites using 20 blind and visually impaired volunteers and at the same time conducted a survey on e-government website developers. The results from e-government website's accessibility evaluation were also compared with expert's review. For both the evaluation and the survey, they used a set of accessibility guidelines developed by W3C (i.e. Web Content Accessibility Guidelines (WCAG 2.0)), Section 508 of the US Rehabilitation Act Amendments of 1998, and other guidelines from a literature review. In order to evaluate a reasonable number of e-government websites, a set of common e-government websites visited by the blind community was identified and a set of specific common tasks to test were defined. The results revealed a serious weakness in understanding, adopting and implementing web accessibility guidelines throughout nearly all Jordanian e-government websites. The authors conclude that improving awareness, training developers and users, and developing formal guidelines of web accessibility are all needed to enable visually impaired and blind users to access e-government websites and their services.

Cultural aspects of e-government are addressed in the next paper by Fang Zhao from the School of Business and Management, American University of Sharjah, in the United Arab Emirates. The author used correlation and multiple regression to analyse two sets of index: (1) Hofstede's cultural dimension index and (2) the e-government development index of the 2010 United Nations e-government survey. The results showed that there was a correlation between e-government development and the cultural dimensions defined by Hofstede. Of the five cultural dimensions, the author found that individualism (i.e. the extent to which an individual is integrated into a group), power distance (i.e. the extent to which a society accepts the differences and inequalities in power distribution) and long-term orientation (i.e. the extent to which a culture programmes its members to accept delayed satisfaction of their material, social and emotional needs) are significantly correlated with e-government development. The implications of the findings and the strategies proposed by this study could help governments and decision-makers design and implement policies that take into account cultural factors to improve e-government services and their overall development.

The final paper in this issue of *Behaviour & Information Technology* deals with added value services on intelligent transportation systems (ITS). M.R. Martínez-Torres and M.C. Díaz-Fernández from the Departamento de Administración de Empresas y Comercialización e Investigación de Mercados (Marketing), and S.L. Toral and F.J. Barrero from the Departamento de Ingeniería Electrónica, all from the Universidad de Sevilla in Spain, were concerned about the lack of agreement or coordination among service providers, public authorities and final users which they believe is reducing the successful implementation of ITS. They used concept mapping techniques to analyse the different points of view of the main actors involved in the transportation field. Their results provide general guidelines for future ITS services to address the needs of all stakeholders.

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