Editorial: Special Issue on “Bright ICT: Security, Privacy and Risk Issues”

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1 Introduction

Bright ICT, a 2015 initiative of the Association of Information Systems introduced by Prof J.K. Lee, refers to the grand vision of a bright society enabled by ICT. Bright ICT research involves taking a holistic view at the design of ICT enabled future society (Lee, 2016; Lee et al., 2018). This concept entails the development of relevant technologies, business models, public policies, social norms, international agreements, metrics for measuring national progress and preventing undesirable activities on the Internet. It is also at the center of discussions on adoption or modification of technologies, policies, and organizations from which new business models—that create a bright safe internet—can evolve. As a double edge sword, technology creates huge benefits such as the use of mobile phones for healthcare access but create challenges such as delayed access to healthcare providers (Haenssgen & Ariana, 2017). Legal frameworks such as the General Data Protection Regulation (GDPR) and opt-in/out rules that are promulgated to protect individuals’ private data have dual effect of reducing users’ information sharing intentions and giving power to a few Tech market players (Johnson et al., 2020).

The unintended consequences of technology adoption and how to address technostress and cybercrime include: Privacy issues in the design, adoption and diffusion of technology in the emergency management, health, entertainment, government, political and criminal justice sectors; Identification of risk factors and barriers to success in emerging technology adoption and strategies for addressing the risk; Security, privacy and risk with the use of social media in crisis management; Ethics in the adoption of Internet of Things, Big Data Analytics, wearables and mobile technology; Security, privacy and risk associated with the design of smart cities; Effect of legal framework(s) on reducing security, privacy and risk issues in the design, adoption and diffusion of technology. Additionally, ICT use has raised the issue of digital addiction, impaired child development, and contested individual free will (Castelo and Lehmann, 2019). An understanding of these associated consequences is relevant to improving Bright ICT globally. Although digital technologies are advancing life experience, they have used for undesired outcomes such as corruption of democratic process across many countries (Cheeseman et al., 2018).

This issue section is the results of papers presented at the “Social Impact of Bright ICT Adoption” IFIP Working Group 8.6. workshop at the University of Ghana, Accra on 21st – 22nd June 2019. Six out of the thirty-eight (38) papers submitted to the conference were invited for the special issue. Following three rounds of review, the six manuscripts were accepted. The accepted papers contribute to our understanding of the threats of ICT adoption by organizations and individuals. Authors also present insights for managers—of different types of organizations—and individuals for maximizing the social impact of ICT use.

2 Papers in this Special Issue

In the first paper, Odusanya et al. (2022), explore the issue of trust of electronic retailing platforms and its effects on the continual use of such platforms. In the Nigerian context, perceived usefulness and social influence were not significant drivers. However, hedonic motivation, risk, ease of use and quality in driving intention to use trust electronic retail websites were significant drivers of continual use of such platforms. Therefore, trust is a critical issue for the bright side of electronic retail. It is a key component that facilitates the sustenance of online platforms by providing assurance of consumer rights. The authors demonstrate that information quality, usefulness, risk and hedonic values are predictors of consumer trust in electronic retail. The sub-Saharan
context help contribute to the literature and provide managers insights on path to developing context specific trust in online platforms.

In a related work, Idowu and Elbanna (2022), highlighted the contribution of crowd workers and sought to classify them into a typology. The study identified four categories of crowd workers in Nigeria based on prior employment experience and initiatives. The four groups of crowd workers are Switchers, Early birds, Awakened and Green starters. These four groups are career development paths in the evolving crowd workspace. While the adoption of ICT creates jobs, it has had the unintended effect of eliminating jobs. As the goal of bright ICT is to minimize these negative effects, there are call for understanding the broader effects of job sustenance following the introduction of ICT. This study lays the groundwork for understanding crowd worker skills acquisition and development of long-term working experience.

In the third paper, Offei et al. (2022), examine the negative consequence of the proliferation of ICT. They investigate the factors that influence computer users into becoming online romance scammers. Using Ghana as a case study, the authors find denial of victim and denial of responsible dimensions of neutralization theory as the likely techniques used to justify the intentions to commit online romance fraud. That is, individuals employ denial of risk as a mechanism to rationalize their intention to commit romance fraud. Although the proliferation of the internet has created alternatives for individuals seeking love and support to meet, it has also created a conducive environment for unscrupulous individuals to take advantage of vulnerable individuals seeking love. This has been one of the long running issues with bright ICT. Through insights from surveying individual engaged in online romance scam, the authors highlight the effect of denial of risk as the key enhancer of the use of neutralization techniques in committing online crimes.

The fourth paper focuses on the regulatory framework of a country and its effect on the diffusion of technology. Khan, et al. (2022), using social change(s) as the basis, argue that the rate of diffusion of ICT in a country is a function of the country’s ICT regulatory environment. They found support for this thesis using publicly available data on 83 countries. Furthermore, the authors show the interactive effects of diverse national cultural orientation on laws and IT diffusion. Although, the authors examine wellbeing as outcome, the concept of wellbeing is so broad that future research could explore the other dimensions of wellbeing. Continuing in the context of IT use in public, Ismagilova et al. (2022), argue that ICT has witnessed greater use in the transformation of citizen participation and experience in smart cities. This literature synthesizes prior security, privacy and risk issues that are relevant for smart city development. The current threat to critical national infrastructure highlights the need for more understanding of how to promote the operation of safe smart cities. The authors outline several areas including healthcare, power systems and mobile infrastructure that require additional insights from researchers.

In the last paper, Singh et al. (2022) focus on an emerging issue about the unintended negative consequence of ICT diffusion. The spread of information that is low in credibility, against truthful information, has been a bane for most online platform managers. The authors proposed and evaluated a mechanism for detecting rumor and non-rumor information on twitter. Their proposed mechanism is based on the content analysis of a tweet and user behavior. The insight from this study is useful for managers, who seek to reduce the impact of spread of information low in credibility.

3 Opportunities for Future Research

Taken together, the papers in this special issue contribute to the literature on the unintended use of ICT and provide insights for practice. The papers correspondingly make recommendations for future research in several areas. First, crowdsourcing is still evolving especially following the recent Covid-19 global pandemic. Thus, future research should explore the lived experience of crowd workers and socio-economic impact on Bright ICT. Second, as technology is continually being utilized in the infrastructure of most cities, the legal and institutional dimensions needed to efficiently utilize ICT require more investigation. Additionally, future research should investigate the use of blockchain in smart cities. Third, the effect of administrative process efficiency in the diffusion of ICT warrants further investigation. Fourth, authors call for triangulation of methodologies to unravel the intricate dynamics of internet crimes includes online romance scam. Furthermore, research for how to improve check and balances in the use of ICT for election is important. Understanding of approaches and technology design that alleviate these concerns will advance the concept of Bright ICT.

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