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CONNECTING WORLD WITH IoT: ISSUES AND PROBLEMS AROUND USE INFORMATION

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ABSTRACT

As IoT is getting increasingly popular, it brings us new challenges and problems. IoT users either intentionally or unintentionally leave the use information behind them when they engage with IoT. Those seemingly trivial information, once compiled up, can tell more than one would have expected. Users may or may not have realized this problem. We are interested in the reasons why users still choose to engage in IoT uses when they realize the problems. The current study uses and compares two models, Privacy Calculus and IT Identity, to investigate this interesting phenomenon. Privacy Calculus model offers rational explanations, stating that IoT users weigh the benefits and the risks of IoT uses. It assumes that IoT users make decisions based on rational thinking. They choose to engage with IoT of their choices because the benefits outweigh the risks. On other hand, IT Identity theory provides an alternative explanation. According to IT identity theory, people adopt and engage with the use of IoT in order to be themselves. Their IT identity is a primary motivator of their IT related behaviors. That is to say, they engage with the IoT regardless of use information problem because the use of IoT is part of their IT identity. By including two models in the same paper, we hope that we can better capture IoT users' thoughts on why they still engage with IoT knowing the risks caused by use information.

KEYWORDS

IoT, use information, Privacy Calculus, IT Identity, model comparison

EXTENDED ABSTRACT

As IoT is getting increasingly popular, it brings us new challenges and problems. IoT users either intentionally or unintentionally leave the use information behind them when they engage with IoT. Those seemingly trivial information, once compiled up, can tell more than one would have expected. Users may or may not have realized this problem. We are interested in the reasons why users still choose to engage in IoT uses when they realize the problems. The current study presents two models, Privacy Calculus and IT Identity, in a parallel manner, in order to explore IoT users' views on the use information problem associated with IoT. Privacy Calculus model suggests that people weigh the benefits and risks of IoT before they use it, or they evaluate trusting and distrusting beliefs (Menard and Bott 2018; Modarensneszhad et al. 2013). They engage with the IoT of their choices when they believe that the benefits outweigh the risks, or when the trusting beliefs outweigh the distrusting beliefs. The explanation offered by Privacy Calculus is simple and rational. However, the engagement with IoT is not a pure cognitive decision with only rational thinking. It is possible that there are other drivers that would result in people's use of IoT. Therefore, we present the second model, IT Identity theory, as an alternative explanation. Based on IT identity theory, people adopt and engage with the use of IoT to be themselves (Carter and Grover 2015). IT identity is a primary motivator of IT related behaviors. People choose to engage in behaviors and activities that verify their identities. In the context of IoT, people actively search for opportunities to interact with IoT that they view as integral to themselves. That is to say, they engage with the IoT regardless of the use information problem because the use of IoT is part of their IT identity. We plan to use survey instruments in this study in order to answer the research question. We hope that, by the use of survey, we can capture and reveal the IoT users' thoughts on use information and what makes them engage with IoT knowing the potential problems.

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