

# Online Expression, Personal Cybersecurity Costs, and the Specter of Cybercrime

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## INTRODUCTION

The UN General Assembly has declared freedom of expression to be a universal human right (UN General Assembly, 1948). As of 2016, the United Nations has resolved that unrestricted access to the Internet is also a human right (UN Human Rights Council, 2016). A commonly accepted benefit of the Internet is that it serves as a platform for free expression. Importantly, political topics are also discussed as well as other topics without socially accepted *savoir faire*. However, there are potential consequences for users who make controversial or provocative expressions over the Internet from other users and organizations participating in or following the communication (Baroni, 2015; Cassidy, 2017; Jaschik, 2014). Such consequences may also be in the form of illegal doxing or hacking attacks by cybercriminals.

Users' concerns about such consequences may have an inhibiting effect on their Internet usage for free expression. This inhibiting effect may correlate with what users believe and how users behave concerning addressing security and privacy issues of their devices. The inhibiting effect may also correlate with users' attitude toward and perception of the time they spend addressing their devices' security and privacy issues. However, the association between online expression aspects and the perception of time consumption on security aspects is lacking in prior research. Users may be reluctant to express themselves online simply because anonymity costs too much time and effort. That is, the users may be aware of the importance and abundance of tools providing anonymity and may wish to express themselves online but decide that spending time on anonymity is just too much effort. Concern about such consequences may not only have an inhibiting effect on users' use of the Internet for expression but it may also correlate with their desire to purchase personal cybersecurity products and anonymizing services.

Another generally accepted beneficial use of the Internet is as a platform for commerce, which is continuously increasing (Emarketer.com, 2014). At the same time, spending by consumers and businesses on cybersecurity products and services is also increasing (Morgan, 2017). It is reasonable to expect that users purchase a significant proportion of personal cybersecurity software online. It is possible that misgivings of users about the Internet as a platform for free expression may correlate with increased Internet utilization by those same users for commerce in personal cybersecurity products and services. This article explores this somewhat paradoxical relationship given that the Internet is seen as an overall good for humanity. It leads to a focus of this chapter; that is, to the consideration of users' reluctance

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to express themselves in relation to their attitudes and perceptions regarding the time and money they invest in security. This is relevant to participation in social media and other online expression contexts.

To facilitate research and discussion on this topic, six latent factors are elucidated: three corresponding to a reluctance to self-express online, one corresponding to a belief that handling security and privacy aspects of one's device requires an excessive amount ("too much") of one's time, and one for time considering device cybersecurity and privacy settings aspects. The sixth factor corresponds to a positive predilection toward personal spending to enhance personal cybersecurity. The correlation among two of these factors is then analyzed. A linear regression of one latent factor against the other and against a demographic factor is also performed.

This chapter presents an overview of related research, followed by a description of a proposed research model. It then establishes the general latent factors. Some results are presented and discussed, followed by a description of future research suggestions, and a conclusion.

## BACKGROUND

Previous research has considered implications on free expression and the benefits of free expression. Willingness to express opinions online has been measured in terms of a web forum's view/reply ratio (Shen & Liang, 2015) and by asking users how likely they would be to express their opinions in specified online scenarios using a 0-100% or 0-10 scale (Ho & McLeod, 2008; Stoycheff, 2016). Hayes et al. (2005) established a self-reporting tool consisting of eight five-point Likert questions to measure willingness to self-censor. However, the tool's questions pertain to a general social context and not specifically to self-expression of controversial opinions on the Internet. Attempts to measure a reluctance to express on the Internet or to establish the same as a latent factor are lacking in previous research.

The emerging research of Booth (2017) has raised attention to the issue of freedom of expression and the laws and norms thereof in terms of their relationship to the benefits of ICT on national well-being. However, her research does not consider the relationship between the expression of free speech on aspects of the individual user. Internet communication is largely beyond the territorial control of the nation-state and access to the Internet has been recognized as important to the freedom of expression and to participation in a democracy (Lucchi, 2011). Previous research has established that usage of the Internet for free expression can be a way of circumventing censorship or other hindrances that prevent citizens' freedom of expression in more traditional publishing media, especially in authoritarian regimes (Nadi & Firth, 2004).

Prior research has shown that many states have begun imposing online surveillance upon their citizens by way of legislative acts or other means (Ray & Kaushik, 2017). The research suggests that the ostensible justifications for such surveillance, such as cyberterrorism or cybercrime, are questionable and disproportional to the scope of the surveillance desired by the state. Such surveillance does not directly restrict online expression but it can create hesitation or concern in the user. The user may hesitate to criticize the state or its policies in an online forum due to fear of being surveilled. Many states also impose varying levels of censorship and controls on online expression (Ray & Kaushik, 2017).

Debate and discussions that occur over online forums and social media, such as Twitter and Facebook, are raising the attention to a virtually unlimited array of topics. Importantly, socially controversial topics and political topics are also discussed. Certain organizations consider and evaluate the various threats to the freedom of expression online (Stanton, 2014). In oppressive states, free expression enabled by access to the Internet can be particularly important for advancing human rights (Nadi & Firth, 2004).

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