PERSONAL INFORMATION ARCHIVING: BEHAVIOURAL RESPONSES TO THE PERCEPTION OF RISK

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Introduction
Risk is an inherent aspect of human life and self-preservation is an instinct that mitigates real and imagined harms in response to tangible or perceived risks. Personal information archiving relates to perceptions of risk as 88% of internet users report being concerned about the privacy of their personal information (USC Annenberg School, 2004). Problematically, individuals' expressed concerns about risks online and actual behaviour online are not always aligned (Quinn, 2016); further, what people say they do and what they do are not aligned. This apparent inconsistency between what people describe as risky and whether this changes or predicts their future actions is inconsistently debated in scholarly literature.

In this research, we identify factors that influence perceptions of online risk and analyze the behavioural responses to those perceptions. Building on Bates' theory of information behaviour, we focus on online protection strategies and digital archiving as a specific instantiations and manifestations of information behaviour. The research analyzes how factors, such as perceptions of online risk and self-reported internet skills, have consequences for information behaviour. We focus on information behaviours and ask what factors influence perceptions of online risk and what are the behavioural responses to those perceptions. We investigate this question using online protective strategies and archival habits as proxies for online behaviours, which often involve choices and cost-and-benefit analyses of the risk and convenience involved.

Theoretical Framework
In this research, we use Bates' (2010) theory on information behaviour as the conceptual framework because of the focus on the ways in which technologies have consequences for how individuals engage with information. For Bates (2010), information behaviour describes the many ways in which people interact with information—in particular, the ways in which people seek and use information. Bates encourages researchers to examine how people *perceive* their own actions online as this holds more explanatory power than simply observing what they do. Focusing on perception provides a lens through which to consider both purposeful and passive information behaviour—using surveys and interviews as the primary data collection methods (Fisher & Julien, 2009).

Methods
This research uses data from 101 semi-structured interviews with a representative sample of residents in East York (Toronto, Canada). We constructed a list of both closed- and open-ended questions to collect data on perception of risk online, self-reported internet skills, protective measures when going online, and digital archiving practices. The interviews were recorded, transcribed, and anonymized. Considering that the interview data are largely qualitative, we manually analyzed and hand-coded participants' responses by categorizing them into discrete categories. To uncover some of the underlying patterns, we focus on the following variables: (1) internet skills, (2) perception of online risk, (3) third party negative experience, (4) online protection method, and (5) digital archiving practices. This dataset provides a rich comparative data source of a well-studied and well-documented community that has previously been analyzed by other scholars (Jacobson, Lin, & McEwen, 2017; Quan-Haase, Mo, & Wellman, 2017; Wang, Zhang, & Wellman, 2018). Considering the size of the dataset, we used a mixed-method approach to identify the relationship between various factors related to perception of risk and assess whether they are also related to subsequent behavioural outcomes.

Findings & Discussion
From our dataset, we found that an individual's self-perceived internet skills and having a third party negative experience are two major factors that influence perceptions of risk online. As a behavioral response to perceptions of online risk, people engage in active protection strategies and active avoidance techniques online.

Our findings indicate that hearing about a negative experience influences how skilled users behave online, regardless of what they say they would or would not do, as they take precautions by employing various active protection strategies online. For those who identified as not skilled computer users, having heard of a negative experience appears to be related to certain information behaviours. A minority of this group uses some form of online protection to reduce their own online risk, while the majority either engage in active avoidance or use no protection and accept the risks.

Developing a typology influenced by the theory of information behaviour provides a way to operationalize user interactions and consider user behaviour as influenced by social factors. Based on our findings, we identified three general classes: 1) cautiously optimistic offliners, 2) confident onliners, 3) and utopic onliners. *Cautiously optimistic*

offliners believe themselves to be skilled internet users, do not feel that being online is particularly risky, yet they actively protect themselves online, and rarely engage in digital archiving activities. *Confident onliners* feel comfortable with their ability to protect themselves online, which allows them to engage in online activities without fear; they regularly store personal information online and employ active protection strategies to mitigate risk online. Finally, *utopic onliners* are the internet champions who embrace the internet without reservation; they are relatively fearless online, have not heard of many negative experiences, generally do not use online protection strategies, archive content online without much concern for risks, are confident in their internet skills, and utopically embrace the internet. This typology is a reductive framework that is both a simplification and a reminder that the relationships between people and technology are multi-faceted.

Conclusion

The research offers an alternate perspective on online information behaviour that departs from traditional classifications that rely on demography. People engage in active protection strategies and active avoidance strategies as a response to their perceptions of risk online. Human behaviour is complex and often requires more nuanced analyses to understand the factors that drive action; demographic markers are not enough to understand information behaviour. As the research has shown, despite what people say, they may not be aware of what drives their actions. This is irrespective of age, gender, or country of birth—when it comes to online risk these groupings are less important. While the three-part typology simplifies the array of online behaviours, we hope it can be used as a way to understand and analyze information behaviour online more broadly and applied to other contexts.

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