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For: Paper Submission for Participation in FTC PrivacyCon

Dear Organizers of the FTC PrivacyCon,

We, Jens Grossklags and Yu Pu, herewith submit our forthcoming research article "Using Conjoint Analysis to Investigate the Value of Interdependent Privacy in Social App Adoption Scenarios" to be considered for a presentation and discussion at PrivacyCon. Our work has been rigorously peer-reviewed and will be presented at the International Conference on Information Systems (ICIS 2015) which will take place in December 2015 in Fort Worth, Texas. ICIS is the leading conference in the field of information systems research.

Our study is concerned with privacy on social network sites and, more specifically, with the associated markets for third-party social apps. Despite their worldwide popularity, social apps pose growing privacy risks to consumers since they collect and potentially misuse substantial amounts of consumers' personal information. Perhaps even more troublesome, the interconnected settings of social network sites and mobile platforms have made it possible for apps to collect personal information about consumers' friends and relatives, who typically have limited opportunities to grant explicit consent or to prevent these practices.

This problem is becoming known as *interdependent privacy*: the privacy of individual consumers does not only depend on their own decisions, but is also affected by actions of others. However, while scenarios which trigger interdependent privacy problems grow in importance, relatively little is known about how consumers perceive these situations and how they value the information of their online connections including their friends and family members.

In the study submitted for consideration, we apply methodologies from the field of marketing to quantify the value of interdependent privacy as perceived by a heterogeneous sample of U.S. consumers.

Our study contributes to the policy discussion on consumer privacy. We observe that consumers associate a relatively low value with the information of their individual connections (even if notified that data collection serves no legitimate purpose). Our findings suggest that such data sharing should be more rigorously limited, and involve the affected friends of a consumer more directly in the decision-making.

In the following, we provide the elements requested in the call for participation:

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Abstract:

Applying a conjoint study approach, we conduct the first research to quantify the monetary value which users place on their friends' personal information. Utilizing the scenario of social app adoption, we further investigate the impact of the comprehensiveness of shared profile information on valuation, and vary the data collection context, i.e., friends' information is not relevant (T1), or is relevant (T2) to app functionality.
The monetary value (measured in US$) which individuals associate with friends' full profile information in T1 ($1.56) differs significantly from the valuation in T2 ($0.98). However, the difference across data collection context is not significant for friends' less sensitive basic profile information (valued at $0.23 in T1, and $0.07 in T2). When considering the self-reported number of online friends, the average valuation for a single friend's profile information is not higher than three cents and as low as a mere fraction of a cent.

Findings to be presented:

- Clear articulation of the problem of interdependent privacy with data from social app markets and social network sites
- Review of research studies which shed light at consumers' understanding of interdependent privacy problems including interaction studies and surveys
- Discussion of our findings on how individuals value the information of their online connections and how this valuation depends on contextual factors including the relevance of data collection
- Presentation of work-in-progress which details with a structured equations model utilizing extensive survey results how consumers' valuation of interdependent privacy depends on additional factors such as their privacy preferences, previous privacy invasion experiences, and privacy knowledge
- Discussion of implications of our work for technology policy, and privacy by design

Methodology:

- Interactive survey of U.S. consumers which includes demographic questions, an embedded trade-off task (i.e., conjoint study approach), and items about consumers' preferences, past privacy experiences and other important factors
- Conjoint study approach to determine the relative importance of interdependent privacy in comparison to other factors such as personal privacy preferences
- Structured equations modeling to explain how the valuation of interdependent privacy depends on important consumer characteristics such as individual privacy preferences

Novelty:

- To the best of our knowledge, no empirical research has investigated interdependent privacy in the scenario of social app adoption, or attempted to quantify the value of interdependent privacy. Our work addresses this literature gap.

We would welcome the opportunity to present our research at PrivacyCon. Thank you for considering our submission.

With best regards,
Jens Grossklags