The Impact of Individual Privacy and Personalization on Online Buying Behavior: An Experimental Study

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Abstract

With recent technological advancements and the growth of online market place, personal information that concern user privacy has become a double edged sword. In an online commerce market, the users give-out their personal information to gain personalized offers or services and the firms use personalization as a tool to indirectly bolster their financial performance. As E-Commerce based businesses reduce the face-to-face interactions between the customers and the salespersons, one way to increase the value of the service and subsequently enhance customer loyalty is by effective personalization. This view-point is however marred by the fact that collecting user personal information involves infringing into a customer's privacy. The personal information of all the users of an E-Commerce market place are collected either by voluntary sharing of the data through surveys or involuntary collection of information through events like mouse clicks and keyboard inputs. The objective of the paper is to find the impact of individual privacy and personalization on customer's online buying behavior.

In a laboratory experiment setup, multiple E-commerce portals were operated with respect to three factors - goal specificity, personalization and privacy. Personalization for a customer is deployed in terms of content relevance by displaying either relevant or irrelevant content banners. The model is grounded on social cognition and consumer research theories. We expect that customers are more likely to buy or browse products that are related to the pervious search or purchase history. Individual privacy for a customer in the E-commerce portal is deployed by offering products that are considered highly private (example: intimate products) and not highly private (example: pen, pencil). Further, goal specificity is implemented by requesting users either to just browse or to add specified number of products to the cart. Our study are based on experimental setup where we collected click stream data to study user behavior. We tested the differences for number of clicks, number of products added to cart and time spend by the consumers in the website.

Our findings show that customer buying decisions are influenced by both the privacy concern with the products and personalization. We found significant mean differences with respect to number of clicks and number of products added to the cart for privacy and non-privacy products. Online users' decision making process is significantly different when they are privacy conscious and when web content is personalized for the user and also with respect to set goals. The findings have implications for design of recommender systems for E-commerce which offers products of different degrees of privacy along with personalized contents for the users. Further research could be carried out to validate these findings across larger and diverse samples.