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A Theoretical Discussion of Consumers' Willingness to Disclose Personal Information Despite Privacy Concerns

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Abstract

The widespread adoption of digital technologies has dramatically increased the concerns over invasion of consumers' information privacy. Several studies show that despite the increasing concerns over invasion of privacy, consumers seldom engage in activities to protect their personal information. Why does privacy remain an elusive concept in practice even though it is widely discussed? This article adopts a resource dependency perspective (Emerson 1962; Pfeffer and Salancik 1978) to explain the reasons of the discrepancy between consumers' privacy attitudes and their actual behaviors. In particular, this paper explains the power-dependency asymmetry in the consumer-firm relationship and explores the mechanisms that foster consumers' dependency on the firm. The dependency asymmetry in a consumer-firm relationship is proposed to enhance the consumers' willingness to self-disclose personal information or allow the firm to intrude into their privacy through new invasive technologies.

Keywords

Information Privacy, Ubiquitous Computing, Pervasive Computing, Invasion of Privacy, Resource Dependency Theory, Social Exchange Theory

Introduction

Although the notion of "privacy" has significantly evolved in the last few decades, it has always been considered as a key to human dignity and freedom. Although the debates over privacy dates back to 1970s (Introna 1997), major privacy concerns have emerged after the advent and wide utilization of the Internet and powerful databases (Berry 1994, Culnan and Armstrong 1999, Solove 2001). Privacy can be grouped into three distinct categories: "no access to the person or the personal realm", "control over personal information", and "freedom from judgment or scrutiny by others" (Introna 1997). The first category focuses on the exclusion of others from the personal realm (Haag 1971) and defines privacy as "the right to be alone" (Warren and Brandeis 1980). The second category focuses on having control over knowledge about oneself (Fried 1968). The third category focuses on the consequences of privacy invasions and posits that the real issue about privacy is about the judgment and scrutiny by others (Johnson 1989).

With the pervasive use of information technologies, huge and powerful databases, and ubiquitous computing practices (Solove 2001), it has become extremely challenging for consumers to have control over their personal information. Firms are now able to collect immense amount of data about customer by tracking consumers electronically on the Internet and make use of large and powerful databases to store and process information collected about customers. The firm-consumer relationship can be views as a two-way battle: Consumers try having control over their personal information and protecting their information privacy; whereas, firms try collecting and utilizing as much personal information as possible. Despite the widespread recognition about and rising concerns over invasion of online information privacy, anecdotal evidence as well as recent studies highlighted a significant discrepancy between consumers' privacy attitudes and actual behaviors (Chellappa and Sin 2002; Harn et al. 2002).

Previous studies which explored the dichotomy between consumers' privacy attitudes and their actual behaviors have suggested three lines of reasoning (Hallam and Zanella 2017, Martin 2016): 1) Consumer-Firm relationships and perceived trust, 2) Lack of privacy awareness, 3) Trading privacy for monetary rewards and social benefits. Drawing upon the resource dependency perspective, the paper explores the nature of the power-dependency in firm-consumer relationships and highlights this dependency as a major reason for trading long term privacy.

Theoretical Framework

The term consumer refers to individuals who have various kinds of interactions with the online firms: buying goods and services from e-commerce web sites (i.e. ordering books from Amazon) or using online services of online firms (i.e. using the e-mail service of Yahoo). The term firm refers to online companies which provide products and services to its consumers. Drawing upon the resource dependency perspective, the paper argues that this discrepancy occurs as a result of the asymmetry in the consumer-firm power relationship and the consumer's dependency on the firm's products and services. Salancik and Pfeffer (1974) defined dependency as "a phenomenon which exists whenever one actor does not entirely control all of the conditions necessary for the achievement of an action or for obtaining the outcome desired from the action". In our context, we assume that firms and consumers are dependent on each other because the outcome of a firm finalizing an online sale or providing an online service depends on the activities contributed by both actors.

We base our theoretical arguments on two major resource dependency theories: The Social Exchange Theory (Emerson 1962) and The Resource Dependency Theory (Pfeffer and Salancik 1978; Salancik and Pfeffer 1974; Pfeffer 1992). Social exchange theory (Emerson 1962) explains inter-individual resource dependencies and the emergence of power asymmetries among individuals. The resource dependency theory (Salancik and Pfeffer 1974), which derives from the social psychological literature, explains inter-organizational resource dependencies and the emergence of power asymmetries among organizations. The resource dependency theory has been used in privacy research earlier (Storey et al. Kane 2009). The social exchange and the resource dependency theories both argue that power asymmetries in a relationship emerge as a result of the interaction between two actors which depend on one another for a critical resource. Hence, through treating individuals or organizations as actors in a power network, they explore multiple dependency paradigms underlying actors' relationships.

For the dependency of the consumer on the firm, there must be an asymmetry in the exchange relationship (Salancik and Pfeffer 1974). Based on the propositions of the resource dependency theory, this paper suggests three conditions for consumer's dependency on the firm: the consumer's perceived importance of resources; the firm has discretion over resource allocation and use; and availability of other resources. These dependency conditions will be explicated in detail in the following section. The existence of these conditions increases the likelihood of the consumer's being dependent upon the resources of the firm (Emerson 1962; Salancik and Pfeffer 1974). The consumer, who requires the resources and services of the online firm, engages in exchanges and transactions which may involve monetary or non-monetary, electronic or physical resources.

Any kind of dependency would create an asymmetry in the firm-consumer relationship. When the firm uses this power advantage, consumers will need to achieve some value at the expense of the other values (Emerson 1962). In this context, one would prefer between two alternatives: protecting the long-term privacy of personal information or gaining the short-term benefits of the resources they need. Moreover, the continuous interactions with the consumer would lead firm to gain increased awareness of its power over the consumer which will make the consumer more vulnerable to privacy invasion. We propose that the asymmetry in the consumer-firm relationship, which is caused by the consumer's dependency upon the resources provided by the firm, results in firms acquiring personal information (or tracking consumers' personal information) in exchange for the products or services it provides and the consumers' willingness to disseminate personal information.

H1: The higher the consumers' resource dependency on the firm, the higher their willingness to disclose personal information.

Based on the resource dependency theory (Emerson 1962; Pfeffer and Salancik 1978; Salancik and Pfeffer 1974), we propose that the consumer's dependency on the firm derives from three major factors. Because consumers' resource dependency is proposed as the driver to determine their willingness to disclose personal information, explicating these factors would help us in understanding the conditions which would increase the likelihood of the firm's gaining power advantage over the consumers and in turn intruding their information privacy. The first factor is the consumer's perceived importance of resources; the extent to which the dependent resource is high in magnitude or/and criticality. The second factor is the extent to which the firm has discretion over resource allocation and use. The third is the availability of alternative resources; the extent to which there is alternatives to substitute a required resource. Next, we will explain how these factors affect the consumer's dependency on the firm, and in turn the firm's ability to intrude the consumer's information privacy.

Importance of Dependent Resources: A consumer's vulnerability to privacy invasion is partly determined by the extent to which the consumer has come to depend on resources which he perceives to be important. Emerson (1962) explains two actors' dependency on each other as follows: "the dependence of actor A upon actor B is directly proportional to A's motivational investment in goals mediated by B". In other words, A's perceived importance of resources which are provided by B increases the likelihood of A's dependency on B. In line with this argument, we propose that consumers are dependent on a firm to the extent that resources or services provided by the firm are in proportion to their needs.

H2a: The higher the extent that the consumers' achievement of goals is mediated by the firm, the higher their dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Salancik and Pfeffer (1974) propose two strategic factors for the importance of resource, which would promote consumer's dependency on the firm: *The Relative Magnitude of Exchange and Criticality of Resources*. The relative magnitude of an exchange is measurable by assessing the proportion of total inputs or the proportion of total outputs accounted for by the exchange (Salancik and Pfeffer 1974). The relative magnitude of exchange can be captured in terms of dollars or in terms of time spent on conducting transactions with the firm (including repeated business). Specialization of consumers needs would play a role in determination of the relative magnitude of exchange. For example, a consumer who necessitates a specific product (or service) for survival would probably have a relatively higher magnitude of exchange for this product compared to a consumer that requires a variety of products. In line with the theory, we propose that the consumer with a higher magnitude of exchange for a specific product will be more dependent on the provider firm so that will be more willing to provide consent.

H2b: The higher the consumers' magnitude of exchange with the firm, the higher their dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Criticality of the resource reflects the consumer's ability to continue functioning in the absence of the demanded resource (Salancik and Pfeffer 1974). A resource may be critical to the consumers even though it comprises only a small portion of their total needs. For example, consumers' pet may need a special nutrition which is only found in one specific type of brand sold by a specialized firm. In this example, the magnitude of exchange of this resource may not be high for the individual, because it is a small proportion compared to the overall needs, yet the resource is critical to the individual. The criticality of a resource is more difficult to determine than the sheer magnitude of its use, since it may vary from time to time as conditions and needs of the consumer change. For example, an individual may not regularly need a typical type of medicine, but may suddenly need it. We propose three dimensions of criticality: *1) Urgency:* The extent to which an individual requires to access to the product or service immediately. The examples may be the shipping time of the product ordered from an e-commerce website, or the speed of the service provided by an online firm; *2) Quality of the product and service:* The extent to which the consumer requires a qualitative product or service or be satisfied with a mediocre one, *3) Compatibility:* The extent to which the required service be compatible with what others are using. For example, altering an e-mail service would not create a compatibility problem, since it would not matter for others to receive the e-mail from another company. However, switching a platform may create problems of compatibility.

H2c: The higher the consumers' perceived resource criticality, the higher their dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Discretion over resource allocation and use: The second major determinant of the consumer's dependency on the firm is reflected upon the firm's discretion over allocation and use of important resources. The firms' discretion over a resource can be various; such as, direct resource possession, access to a resource without necessarily owning it, and ability to regulate the possession, allocation and use of resources (Salancik and Pfeffer 1974). Particularly, discretion over a major or scarce resource can be very important for a firm in making the consumer dependent upon its resources and services. For example, a digital library which offers scarce books and articles which cannot be found in other online databases or conventional bookstores would have the advantage of resource possession and so potentially make its users, who value the service important, dependent on its service. Similarly, if an Internet Service Provider firm offers an unlimited storage space to its customers for e-mail and web publishing services in an environment where no other firm is providing the same service for free, the firm will be better off in making its customers dependent upon its service.

H3: The higher the firm's discretion over resource allocation and use, the higher the consumers' dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Availability of Alternative Resources: In addition to importance of dependent resources and firm's discretion over resource allocation and use, a consumer's resource dependency on a firm is derived from the concentration of resource control, which is defined as the extent to which the products or services are made available by a relatively few, or only one, significant organizations (Salancik and Pfeffer 1974). Similarly, Emerson (1962) suggests that the dependence relation and the power asymmetry would alter if one knows that other resources are also available. In line with these arguments, it's argued that consumers' dependency on the firm varies with the availability of the required resources outside of the specific consumer-firm relationship. When there is a large amount of resources available relative to consumer's demand, dependency of the consumer on the firm is reduced. In other words, the dependency of the consumer is in inverse proportion to the ability of other firms providing the same resource or service. Hence, we propose the following:

H4a: The higher the firm's concentration of resource control and the less the availability of other firms' providing the similar resource to the consumer, the higher the consumers' dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Based on the resource dependency theory (Pfeffer and Salancik 1978), we also suggest that consumers' ability to substitute alternative resources for any required resource in practice may be more important in determining the extent of dependency than the actual number of alternative resources and services. Several conditions may influence a consumer's ability to substitute the resource, such as, consumer's awareness of alternative resources, consumer's ability to access to the resource, reasonability of the switching and learning costs to alternate a service or a product, compatibility of a resource with what others are actually using. Hence, we propose the following:

H4b: The less the consumers' ability to substitute the alternative resources for the required resource, the higher their dependency on the firm, and in turn, the higher their willingness to disclose personal information.

Conclusions

This paper focuses on the misalignment between consumers' concerns over privacy breach and their behaviors. While consumers widely acknowledge their concerns over the erosion of their information privacy as a consequence of their interactions with online firms, they barely take any action to alter the situation. That is even true in the cases where consumers are aware that their information privacy is violated and they do not trust to the firms they are interacting with. The paper takes the resource dependency perspective to explain this discrepancy between consumers' attitude and behaviors and suggests that consumers' dependency upon the resources provided by the online firms result in firms' invasion of consumers' information privacy. The paper also suggests three mechanisms that would drive consumers' dependency on the firm and in turn enhance consumer's willingness to disclose their private information and increase the probability of the firm to intrude consumers' information privacy.

As a future research direction, we propose that the mechanisms to reduce consumers' resource dependency on the firms and enhance their ability to protect their information privacy deserve further attention. Pfeffer and Salancik (1978) argue that the problems associated with concentrated power do not arise as a result of the power concentration itself, but others lack of countervailing power or exerting an equal concentration of opposition. Similarly, we believe that the invasion of consumer privacy is not only caused by the consumer's dependency on the firm's resources, but also consumer's lack of countervailing power or access to alternative resources. Emerson (1962) suggests several strategies to balance the asymmetrical dependence relationships. Assuming that the asymmetry in the firm-consumer relationship can be altered, future studies may investigate the mechanisms which could reduce consumers' dependency on the firm and foster their proactive actions to protect their information privacy. For example, social networks may allow consumers to receive information about the alternative firms on the market or read the reviews about firms' practices regarding the information privacy. Such a coalition formation may eventually reduce consumers' dependency on specific firms as they possess awareness of alternatives and foster consumers' proactive actions towards protecting their information privacy.

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