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The role of theory in gender and information systems research

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ABSTRACT

In response to claims emanating from recent assessments of the status of gender and IS research about insufficient theorizing of gender, a critical literature analysis of research papers on the topic of gender and IS that appeared in information systems journals between 1992 and 2012 was undertaken. While some research about gender and IS explicitly employs or develops gender theory, other research that claims to be about gender does not explicitly employ any gender theory to interpret research findings, relying, instead, on implicit gender essentialism as a theory-in-use. Research papers about gender and IS that do not explicitly employ gender theory typically use another IS or management theory as the sensitizing device to interpret the data. Still other research papers are gender atheoretical insofar as neither explicit nor implicit gender theorizing is evident in the papers. In gender and IS research, as in all research, gender theory can be used as a lens to guide the collection, analysis and interpretation of data — whether conducted with a positivist, interpretive or critical epistemology. Alternatively, gender theory can be used to interpret findings when gender is a factor that (expectedly or unexpectedly) results from a larger analysis. Finally, gender theory can result, inductively, from the data by means of grounded theory methods. In any case, the use of theory is to be directed toward understanding the phenomenon of gender in the context of IS (analyzing, explaining), establishing causality (predicting) or guiding action (design and action). This analysis of the role of theory in gender and IS research offers recommendations about the conduct of gender and IS research going forward.

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1. Introduction

Papers on the topic of gender and information systems (IS) have been appearing in the information systems journals on a regular basis for the past 20 years. These papers fall into two broad categories. One category of research papers is concerned with gender and the information systems (IS) workforce, focusing, typically on the underrepresentation of women in the IS professions. The other broad category of gender and IS papers focuses on the adoption and use of information technology (IT),[1] typically searching for gender differences. At the highest level we could say that the questions being asked are: 1) why are women underrepresented in the IS workforce? and 2) what do we know about the role of gender in technology adoption and use?

Several reviews of the status of gender and IS research have been published (e.g. Adam, Howcroft, & Richardson, 2004; Ahuja, 2002; Gorbacheva, 2013; Kvasny, Greenhill, & Trauth, 2005; Trauth, 2011; Trauth, Quesenberry, & Huang, 2006). One conclusion emanating from these studies is that there isn't enough gender and IS research being published. Another observation that has been drawn is that a considerable amount of the gender research that is being published isn't sufficiently theorized (Adam et al., 2004; Kvasny et al., 2005; Trauth et al., 2006). As these critiques point out, some research about gender and IS that is being published in the literature does not appear to be using any theory of gender. This is not to say that scholarly papers published in IS journals are devoid of any theory. Rather, it is to say that the phenomenon of gender in such papers is not theorized.

One might ask why it is important to theorize gender when engaging in gender and IS research. In response, consider Gregor (2006) paper on theory in information systems. She begins with a discussion of the role of theory in understanding any phenomenon. Theory is a lens that guides data collection and analysis. This is the case whether the research is positivist, interpretive or critical. Hence, theories are:

> …abstract entities that aim to describe, explain, and enhance understanding of the world and, in some cases, to provide predictions of what will happen in the future and to give a basis for intervention and action (p. 616).

She goes on to identify the types of theory used in information systems research: analyzing, explaining, predicting, explaining and predicting, and design and action. Hence, in gender and IS research gender theory can be used as a lens to guide the collection, analysis and interpretation of data — whether conducted with a positivist, interpretive or critical epistemology. Alternatively, gender theory can be used to interpret findings when gender is a factor which (expectedly or unexpectedly) results from a larger analysis. Finally, gender theory can result, inductively, from the data by means of grounded theory methods. Hence, gender theory is to be directed toward understanding the phenomenon of gender in the context of IS (analyzing, explaining), establishing causality (predicting) or guiding action (design and action).

In view of these roles that theory can play in gender and IS research, in what ways is this phenomenon insufficiently theorized? Trauth (2006, 2011) considers three different forms of insufficient theorization. One occurs when no gender theory is used in the research. That is, while some other theory (such as about technology or organizational behavior) might be employed there is no gender lens to guide the conceptualization of the gender dimension of the research, to inform the data collection and analysis, or to interpret the results. The focus is limited to compiling and representing statistical data regarding such topics as differences between men and women with respect to technology adoption, use or organizational impact. This is labeled *pre-theoretical* or *atheoretical research*; as such, it provides limited opportunity for future work that could test, refute or extend it. The second category of insufficient theorization of gender and IS research also employs theories about technology and organizations. And while it does not explicitly articulate a particular gender theory the interpretation of gender findings is guided by a gender theory-in-use. This is most prevalent in positivist, quantitative studies. The theory-in-use most often employed is gender essentialism, which assumes the existence of fundamental, inherent differences between men and women that are applicable to the context of information system careers and IT use.

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[1] In this paper the term "information systems" (IS) refers to the field whereas the term "information technology" (IT) refers generically to the object of engagement in the IS field.