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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.

[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.

While not explicitly declared as such, this theory-in-use has been used to guide the interpretation of findings in a gender essentialist direction. This form of insufficient theorization is labeled *implicit-theoretical research*. It is insufficient theorization because of the failure to explicitly articulate the gender lens being used to interpret the data. Hence, it is problematic for others to discuss, challenge or extend the research claims. Finally, even the body of gender and IS research that explicitly employs gender theory reveals gaps in that there are not enough theories about gender and IS emanating from within the IS field, that fully account for all of the observed relationships to information technology and the IS field. Hence, this is called *insufficient-theoretical research*.

This paper employs this framework to review the ways in which gender theory has been used in published gender and IS research. In this analysis "theory" is used in the broadest sense to include not only established theory but also emergent theory, theoretical frameworks and conceptual models. While similar work has been undertaken before, this paper differs from them in two respects. First, this review is more comprehensive in that it considers papers published in venues beyond the Association for Information System's Senior Scholars' Basket of 8 journals. Second, it focuses exclusively on journals - the gold standard of archival literature upon which subsequent research is built. The paper is organized as follows. The scope of study includes gender and IS research journal articles related to: 1) gender and IT use; and 2) gender and the IS labor force. The analysis reveals the approach to theory that is in evidence in these journal articles: no gender theory, implicit gender theory, and explicit gender theory. This is followed by a discussion of some exemplar studies that employ explicit gender theory. Finally, the implications for research and practice resulting from the role that gender theory plays in gender and IS research, and recommendations going forward are presented.

2. Methods

The methodology employed in this paper is a 20 year retrospective literature analysis of research papers on the topic of gender and IS that appeared in 15 information systems journals between 1992 and 2012. A similar method has been used in Gorbacheva (2013) and Trauth et al. (2006). Criteria for selection were article publication in the Association for Information Systems Senior Scholars Basket of 8 journals (i.e. *European Journal of Information Systems*, *Information Systems Journal*, *Information Systems Research*, *Journal of the Association for Information Systems*, *Journal of Information Technology*, *Journal of MIS*, *Journal of Strategic Information Systems* and *MIS Quarterly*) or other journals that publish information systems research (*The Database for Advances in Information Systems*, *Information & Management*, *Information & Organization*, *Information Resources Management Journal*, *Information Technology & People*, *International Journal of Technology & Human Interaction*, and *Journal of Information, Communication and Ethics in Society*). The criteria for article inclusion were the appearance of the words "gender" or some equivalent word (e.g. women, female) in the title, abstract and/or keywords.

The search yielded in 132 journal articles that were then read and coded according to the following themes and categories shown in Table 1. "Focus" refers to whether the gender and IS research is about IT use or the IS workforce. "Relationship to gender theory" and "type of gender theorizing" relate to the discussion of insufficient theorizing of gender and IS research that was discussed earlier. While some of the research about gender and IS explicitly employs or develops gender theory, other research that claims to be about gender does not employ any gender theory to interpret research findings. Still other research papers make claims about gender from research findings, which reflect a theoretical orientation, albeit implicit. This type of gender theorizing is "theory-in-use." Research papers about gender and IS that do not

Table 1
Coding themes and categories.

Theme	Categories
Focus	IT use vs. IS workforce
Relationship to gender theory	Gender theory, gender & IS theory, gender atheoretical
Type of gender theorizing	Explicit vs. implicit
Name of gender theory	The particular gender theory or gender and IS theory, if one is used in the research
Role of gender theory in the research	Guiding theory vs. resulting theory

explicitly employ gender theory typically use another IS or management, etc. theory (e.g. Technology Acceptance Model) as the sensitizing device to interpret the findings reported in the paper. The papers were coded into one of the following categories with respect to the relationship to gender theory: gender theory, gender and IS theory, and gender atheoretical. Those papers that did employ gender/gender and IS theory were subsequently coded as either explicit or implicit gender theorizing and the name of the gender theory employed. Finally, the papers were coded with respect to the overarching role of gender theory in the paper. That is, they were categorized based upon whether gender theory was used to guide the research that was reported in the paper or whether gender theory is what resulted from the research.

3. Results

Table 2 shows the journal articles about gender that have been published in IS journals over the past 20 years by journal in which they are published.

Table 3 shows the results of the analysis of these gender papers. Some of these papers explicitly engage with gender theory. They employ a gender theory from outside the IS field (e.g. from women's or gender

Table 2
Research papers about gender by journal: 1992–2012.

Journal	Authors
Database	Blodgett, Xu, and Trauth (2007), Gallivan (2004), Gefen and Ridings (2005), Goethals, Carugati, and Leclercq (2009), Joshi and d Schmidt (2006), Katz, Allbritton, Aronis, Wilson, and Soffa (2006), Kuhn and Joshi (2009), Kvasny (2006), Riemenschneider et al. (2006), Sangran, Siguaw, and Guan (2009), Simon (2001), Tapia (2006), Trauth et al. (2008)
EJIS	Adam et al. (2006), Ahuja (2002), Gallivan and Benbunan-Fich (2007a), Greenhill and Wilson (2006), Light (2007), McCoy, Galletta, and King (2007), Pantelli, Stack, Atkinson, and Ransay (1999), Payton and Kiwanuka-Tondo (2009), Phang, Kankanhalli, Ramakrishnan, and Raman (2010), Ranganathan, Seo, and Babad (2006), Reid, Allen, Armstrong, and Riemenschneider (2010), Taylor (2004), Trauth et al. (2009)
I & M	Al-Gahtani, Hubona, and Wang (2007), Armstrong et al. (2007), Belanger (1999), Fletcher and Light (2007), Ha, Yoon, and Choi (2007), Hovav and D'Arcy (2012), Im, Kim, and Han (2008), Janvrin and Morrison (2000), Lai and Chen (1995), Lai and Li (2005), Lee and Kozar (2009), Lu, Yu, and Liu (2003), Martinsons and Cheung (2001), Mitchell, Klein, and Balloun (1996), Munro, Huff, Marcolin, and Compeau (1997), Palvia and Palvia (1999), Saeed and Abdinnour-Helm (2008), Sanchez-Franco, Ramos, and Velicia (2009), Tan and Igbaria (1994), Van Iwaarden, van der Wiele, Ball, and Millen (2004)
I & O	Adam (2001), Alvarez (2002), Avery and Baker (2002), Richardson and Howcroft (2006)
IJTHI	Aawal (2012), Dunlop (2007), Kvasny et al. (2005)
IRMAJ	Al-Gahtani (2008), Dattero, Galup, and Quan (2005), Goeke, Hogue, and Faley (2010), Ilie, Van Slyke, Green, and Lou (2005), Quesenberry et al. (2006)
ISJ	Clayton et al. (2012), Harvey (1997), Howcroft and Trauth (2008), Pantelli (2012), Quesenberry and Trauth (2012), Ridley and Young (2012), Robertson, Newell, Swan, Mathiassen, and Bjerknes (2001)
ISR	Duxbury, Higgins, and Mills (1992), Gattiker and Kelley (1999), Ragu-Nathan, Tarafdar, Ragu-Nathan, and Tu (2008)
IT&P	Adya and Kaiser (2005), Baker, Al-Gahtani, and Hubona (2007), Ball, Daniel, and Stride (2012), Berg, Mörtberg, and Jansson (2005), Croasdell, McLeod, and Simkin (2011), Gallivan and Benbunan-Fich (2007b), Guzman and Stanton (2009), Habib and Cornford (2002), Harris and Wilkinson (2004), Igbaria and Chidambaram (1997), Joshi and Kuhn (2007), Lang (2012), Leimeister, Schweizer, Leimeister, and Krcmar (2008), Light et al. (2008), Middleton and Chambers (2010), Richardson (2009), Timms, Lankshear, Anderson, and Courtney (2008), Trauth (2002), Trauth and Howcroft (2006), Wilson (2002), Woodfield (2002)
JAIS	Leonard and Cronan (2001)
JICES	Björkman (2005), Capurro (2008), Corneliussen (2005), Gumbus and Grodzinsky (2004), Lucas and Mason (2008), Kvasny et al. (2009), Naivinit (2009), Oleksy, Just, and Zapedowska-Kling (2012), Pace, Houssian, and McArthur (2009), Shirazi (2010), Weber (2005), Winker (2005)
JIT	Adam (2002), Iscan and Naktiyok (2005), Kim and Han (2009), Shen, Lee, Cheung, and Chen (2010), Škerlavaj et al. (2010), Wilson (2004)
JMIS	Awad and Ragowsky (2008), Baroudi and Igbaria (1995), Brown, Dennis, and Venkatesh (2010), Chai, Das, and Rao (2011–12), He, Butler, and King (2007), Hess, Fuller, and Mathew (2005–6); Maruping and Magni (2012), Nunamaker, Derrick, Elkins, Burgoon, and Patton (2011), Smits, McLean, and Tanner (1992), Wattal, Racherla, and Mandviwalla (2010), Zahedi, Pelt, and Srite (2006)
JSIS	Gupta, Dasgupta, and Gupta (2008)
MISQ	Ahuja and Thatcher (2005), Ahuja, Chudoba, Kacmar, McKnight, and George (2007), Gefen and Straub (1997), Igbaria and Baroudi (1995), McElroy, Hendrickson, Townsend, and Demarie (2007), Moores and Chang (2006), Riedl (2010), Srite and Karahanna (2006), Truman and Baroudi (1994), Venkatesh and Morris (2000), Venkatesh, Thong, and Xu (2012), Webster and Martocchio (1992)

Table 3
Research papers about gender and IS by focus and approach to gender theory.

Author	Focus of gender research	Relationship to gender theory	Type of gender theorizing	Name of gender theory	Role of gender theory
Aawal (2012)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Adam (2001)	IT use	Gender theory	Explicit	Feminist theory	Guiding
Adam (2002)	IT use	Gender theory	Explicit	Feminist theory	Guiding
Adam et al. (2006)	ISWF	Gender theory	Explicit	Critical feminism	Guiding
Adya and Kaiser (2005)	ISWF	Gender & IS theory	Explicit	IT career choice model	Resulting
Ahuja (2002)	ISWF	Gender & IS theory	Explicit	Model of barriers to women in IT	Resulting
Ahuja et al. (2007)	ISWF	Gender atheoretical			
Ahuja and Thatcher (2005)	IT use	Gender theory	Explicit	Gender schema theory	Guiding
Al-Gahtani (2008)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Al-Gahtani et al. (2007)	IT use	Gender atheoretical			
Alvarez (2002)	ISWF	Gender theory	Implicit	Within-gender variation	Resulting
Armstrong et al. (2007)	ISWF	Gender & IS theory	Explicit	Model of women's cognitions about work-family conflict	Resulting
Avery and Baker (2002)	IT use	Gender theory	Implicit	Within-gender variation	Resulting
Awad and Ragowsky (2008)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Baker et al. (2007)	IT use	Gender theory gender	Implicit	Gender essentialism	Guiding
Ball et al. (2012)	IT use	Gender theory	Explicit	Social construction of gender essentialism	Guiding
Baroudi and Igbaria (1995)	ISWF	Gender theory	Implicit	Gender essentialism	Guiding
Belanger (1999)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Berg et al. (2005)	IT use	Gender & IS theory	Implicit	Within-gender variation	Resulting
Björkman (2005)	ISWF	Gender theory	Explicit	Feminism	Guiding
Blodgett et al. (2007)	IT use	Gender theory	Implicit	Gender intersectionality theory	Guiding
Brown et al. (2010)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Capurro (2008)	IT use	Gender atheoretical			
Chai et al. (2011–12)	IT use	Gender theory	Explicit	Social role theory	Guiding
Clayton et al. (2012)	ISWF	Gender & IS theory	Explicit	IT career choice model	Guiding
Corneliussen (2005)	ISWF	Gender theory	Explicit	Social shaping of gender	Guiding
Croasdell et al. (2011)	ISWF	Gender & IS theory	Explicit	Theory of reasoned action applied to gender	Resulting
Dattero et al. (2005)	ISWF	Gender atheoretical			
Dunlop (2007)	IT use	Gender theory	Explicit	Gender hegemony	Guiding
Duxbury et al. (1992)	IT use	Gender theory	Explicit	Hall's and Karasek's work-strain theories	Guiding
Fletcher and Light (2007)	IT use	Gender theory	Explicit	Sexuality and IS	Resulting
Gallivan (2004)	ISWF	Gender theory	Explicit	Model of barriers to women in IT	Guiding
Gallivan and Benbunan-Fich (2007a)	ISWF	Gender atheoretical			
Gallivan and Benbunan-Fich (2007b)	ISWF	Gender atheoretical			
Gattiker and Kelley (1999)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Gefen and Ridings (2005)	IT use	Gender theory	Explicit	Social construction of gendered communication	Guiding
Gefen and Straub (1997)	IT use	Gender atheoretical			
Goeke et al. (2010)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Goethals et al. (2009)	IT use	Gender theory	Explicit	Gender essentialism	Guiding
Greenhill and Wilson (2006)	IT use	Gender theory	Explicit	Marxist feminist theory	Guiding
Gumbus and Grodzinsky (2004)	ISWF	Gender atheoretical			
Gupta et al. (2008)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Guzman and Stanton (2009)	ISWF	Gender & IS theory	Explicit	Occupational culture including gender	Resulting
Ha et al. (2007)	IT use	Gender atheoretical			
Habib and Cornford (2002)	IT use	Gender theory	Explicit	Domestication theory	Guiding
Harris and Wilkinson (2004)	ISWF	Gender & IS theory	Explicit	Social shaping of gender & technology	Guiding
Harvey (1997)	ISWF	Gender & IS theory	Explicit	Social construction of gendered technology	Guiding

(continued on next page)

Table 3 (*continued*)

Author	Focus of gender research	Relationship to gender theory	Type of gender theorizing	Name of gender theory	Role of gender theory
He et al. (2007)	ISWF	Gender theory	Implicit	Gender essentialism	Guiding
Hess et al. (2005–6)	IT use	Gender theory	Explicit	Selectivity Model	Guiding
Hovav and D'Arcy (2012)	IT use	Gender atheoretical			
Howcroft and Trauth (2008)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Guiding
Igbaria and Baroudi (1995)	ISWF	Gender theory	Explicit	Gender bias in job performance assessment	Guiding
Igbaria and Chidambaram (1997)	ISWF	Gender theory	Explicit	Gender in human capital theory	Guiding
Ilie et al. (2005)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Im et al. (2008)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Iscan and Naktiyok (2005)	IT use	Gender theory	Explicit	Socially constructed gender essentialism	Guiding
Janvrin and Morrison (2000)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Joshi and Kuhn (2007)	ISWF	Gender theory	Explicit	Social construction of gender roles	Guiding
Joshi and d Schmidt (2006)	ISWF	Gender theory	Explicit	Gender role theory	Guiding
Katz et al. (2006)	ISWF	Gender atheoretical			
Kim and Han (2009)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Kuhn and Joshi (2009)	ISWF	Gender theory	Explicit	Social construction of gender roles	Guiding
Kvasny (2006)	IT use	Gender theory	Explicit	Feminist standpoint theory	Guiding
Kvasny et al. (2005)	IT WF	Gender theory	Explicit	Feminist standpoint theory	Guiding
Kvasny et al. (2009)	IS WF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Guiding
Lai and Chen (1995)	ISWF	Gender atheoretical			
Lai and Li (2005)	IT use	Gender atheoretical			
Lang (2012)	ISWF	Gender & IS theory	Explicit	Socio-cultural construction of gender norms	Guiding
Lee and Kozar (2009)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Leimeister et al. (2008)	IT use	Gender atheoretical			
Leonard and Cronan (2001)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Light (2007)	IT use	Gender theory	Explicit	Hegemonic masculinity studies	Guiding
Light et al. (2008)	IT use	Gender theory	Explicit	Hegemonic masculinity theory	Guiding
Lu et al. (2003)	IT use	Gender atheoretical			
Lucas and Mason (2008)	ISWF	Gender theory	Implicit	Gender essentialism	Guiding
Martinsons and Cheung (2001)	ISWF	Gender atheoretical			
Maruping and Magni (2012)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
McCoy et al. (2007)	IT use	Gender theory	Explicit	Hofstede's gender essentialism	Guiding
McElroy et al. (2007)	IT use	Gender atheoretical			
Middleton and Chambers (2010)	IT use	Gender & IS theory	Implicit	Gender intersectionality	Resulting
Mitchell et al. (1996)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Moores and Chang (2006)	IT use	Gender theory	Explicit	Gender socialization theory	Guiding
Munro et al. (1997)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Naivinit (2009)	IT use	Gender theory	Explicit	Model of gendered telecenter's use	Resulting
Nunamaker et al. (2011)	IT use	Gender atheoretical			
Oleksy et al. (2012)	IT use	Gender theory	Explicit	Feminism	Guiding
Pace et al. (2009)	IT use	Gender theory	Explicit	Sexual Dimorphism	Guiding
Palvia and Palvia (1999)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Pantelli (2012)	ISWF	Gender theory	Explicit	Community of women returning to IS work	Resulting
Pantelli et al. (1999)	ISWF	Gender & IS theory	Explicit	Gender occupational segregation in IT industry	Resulting
Payton and Kiwanuka-Tondo (2009)	it use	Gender atheoretical			
Phang et al. (2010)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Quesenberry and Trauth (2012)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT (Trauth)	Guiding
Quesenberry et al. (2006)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT (Trauth)	Guiding

Table 3 (*continued*)

Author	Focus of gender research	Relationship to gender theory	Type of gender theorizing	Name of gender theory	Role of gender theory
Ragu-Nathan et al. (2008)	IT use	Gender & IS theory	Implicit	Gender essentialism	Guiding
Ranganathan et al. (2006)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Reid et al. (2010)	ISWF	Gender theory	Explicit	Critical feminist theory	Guiding
Richardson (2009)	IT use	Gender theory	Explicit	Feminist theory	Guiding
Richardson and Howcroft (2006)	IT use	Gender theory	Implicit	Within-gender variation	Resulting
Ridley and Young (2012)	ISWF	Gender theory, gender & IS theory	Explicit	Gender essentialism, social shaping of gender, individual differences theory of gender & IT	Guiding
Riedl (2010)	IT use	Gender theory	Explicit	Biological gender essentialism	Guiding
Riemenschneider et al. (2006)	ISWF	Gender & IS theory	Explicit	Model of women's voluntary IT turnover & workplace barriers	Resulting
Robertson et al. (2001)	ISWF	Gender theory	Implicit	Gender essentialism	Guiding
Saeed and Abdinnour-Helm (2008)	IT use	Gender atheoretical			
Sanchez-Franco et al. (2009)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Sangran et al. (2009)	IT use	Gender theory	Explicit	Hofstede's gender essentialism	Guiding
Shen et al. (2010)	IT use	Gender theory	Explicit	Gender essentialism	Guiding
Shirazi (2010)	IT use	Gender atheoretical			
Simon (2001)	IT use	Gender theory	Explicit	Gender essentialism	Guiding
Škerlavaj et al. (2010)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Smits et al. (1992)	ISWF	Gender atheoretical			
Srite and Karahanna (2006)	IT use	Gender theory	Explicit	Hofstede's gender essentialism	Guiding
Tan and Igbaria (1994)	ISWF	Gender theory	Implicit	Gender essentialism	Guiding
Tapia (2006)	ISWF	Gender theory	Explicit	Social construction of gender	Guiding
Taylor (2004)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Timms et al. (2008)	ISWF	Gender theory	Explicit	Model of factors influencing female participation in ICT	Guiding
Trauth (2002)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Resulting
Trauth and Howcroft (2006)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Guiding
Trauth et al. (2009)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Guiding
Trauth et al. (2008)	ISWF	Gender & IS theory	Explicit	Individual differences theory of gender and IT	Guiding
Truman and Baroudi (1994)	ISWF	Gender atheoretical			
Van Iwaarden et al. (2004)	IT use	Gender atheoretical			
Venkatesh and Morris (2000)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Venkatesh et al. (2012)	IT use	Gender theory	Implicit	Essentialism	Guiding
Wattal et al. (2010)	IT use	Gender theory	Implicit	Gender essentialism	Guiding
Weber (2005)	IT use	Gender theory	Explicit	Feminist critique of technology	Guiding
Webster and Martocchio (1992)	IT use	Gender atheoretical			
Wilson (2002)	IT use	Gender theory	Explicit	Feminist theory of organizational behavior	Guiding
Wilson (2004)	IT use	Gender & IT theory	Explicit	Critical framework of gender, IS and organization	Guiding
Winker (2005)	IT use	Gender theory	Explicit	Gender intersectionality	Guiding
Woodfield (2002)	ISWF	Gender theory	Explicit	Social shaping of gender	Guiding
Zahedi et al. (2006)	IT use	Gender theory	Explicit	Hofstede's gender essentialism	Guiding

studies, or sociology) to guide the research, explicitly employ a gender theory from inside the IS field to guide the research, or explicitly develop a gender and IS theory/framework/model as a result of the research. The other group of papers uses another theory in the research (e.g. technology acceptance model, human capital theory). In these papers, the analysis of gender is sometimes atheoretical; other times it is guided by an implicit theory-in-use.

The first theme, shown in column 2, is the focus of the paper: gender and the IS workforce (ISWF) or gender and IT use (IT Use). The second theme, shown in column 3, is the nature of the gender theorizing that appeared in the paper: gender theory, gender and IS theory, or gender atheoretical. Column 4

presents the form of gender theorizing that occurred in the paper. In some cases an explicit gender theory or gender and IS theory was used in the research. In other cases the explicit guiding theory of the research was not a gender theory. In these cases an implicit gender theory-in-use was deduced from the discussion of gender in the papers. Column 5 provides the name of the gender theory/framework/model that appears in the paper. Finally, column 6 indicates whether the gender theory was used to guide the research or was the result of the research.

The gender theories that are in evidence in these papers fall into three broad categories: gender essentialism, social shaping of gender and gender intersectionality. The underlying principle of gender essentialism is the assumption of a gender binary and the conflating of sex and gender: males (masculine)–female (feminine). Wajcman (1991) explains essentialism as the assertion of fixed and oppositional male and female natures. Trauth (2002, p. 100) explains essentialism as the attempt to attribute men's and women's behaviors to inherent, group-level, bio-psychological factors. Gender essentialist theorizing is typically found in research that equates "gender research" with "gender differences research." Given the focus of such research on searching for gender differences, gender essentialism with its assumption of inherent differences between males and females, then, provides a compatible theoretical orientation. When gender essentialism is employed in gender and IS research, observed differences in men's and women's behaviors would be attributed to what are assumed to be fixed, inherent, and immutable differences between all males as a group and all females as a group, with such differences assumed to derive from underlying biological or psychological sources.

While the description given above is the typical explanation of gender essentialist theorizing, another strand of gender essentialism is also in evidence in gender and IS research. Situated in sociology and social psychology, social shaping of gender can be considered as another form of gender essentialism. This type of gender essentialist theorizing, rejects the assumption of fixed, inherent bio-psychological differences. Instead, this theory of gender essentialism derives from the sociological notion of "social construction" (Berger & Luckmann, 1996) or "social shaping" of gender and sex roles (Bem, 1981; Eagly, Wood, & Diekman, 2000). Hence, observed gender differences are attributed to the social shaping or social construction of gender and gender roles that are internalized by all women in a society in the same ways. That is, all women in a society would be assumed to have experienced the same social shaping factors (Trauth, 2002, p. 101). However, while the causes differ, both types of gender theorizing essentialize men as a single group and women as a single group.

Alternatively, the third category of gender theorizing is not based on a gender binary. Instead, this gender theorizing acknowledges the variety of factors influencing gender relations. This type of gender theorizing is expressed in gender intersectionality and minority gender theories. In contrast with the underlying principle of fixed group membership found in essentialism, gender intersectionality and gender minority theories introduce the nuance and within-gender group variability found by considering biological sex in conjunction with other salient identity characteristics such as: gender identity, sexual orientation, race or ethnicity. Further, gender intersectionality and gender minority theories do not equate "gender research" with "gender differences research." Hence, gender and IS research employing a theory of gender intersectionality or a gender minority theory might focus on better understanding black women or gay men or transgendered individuals in relation to IT use or the IS professions.

Some of the intersectionality theories that have appeared in gender and IS research come from other disciplines such as feminist studies, critical race studies and masculinity studies. Feminist standpoint theory (Haraway, 1988; Harding, 2004; Hartsock, 1997) emerged in the 1970s as a critical theory about relations between the production of knowledge and practices of power. Insofar as it provides an approach for theorizing the complexities of lived contexts, experiences and perspectives on women, it has been used by feminists of color to analyze the ways in which women's daily lives are shaped by interlocking power relations such as androcentrism, Eurocentrism, colonialism and classism (Anzaldua, 1999; Hooks, 1981). An example of gender minority theorizing can be found in the work of Connell (1987, 2005) and Halberstam (1998).

Within the IS field, itself, there also exists a corpus of research literature that has produced theories about gender intersectionality and minority or marginalized genders as they relate to IT use or the IS profession. One example of gender intersectionality theorizing is Adya and Kaiser's (2005) IT career choice model (structural factors, social settings, ethnic culture). An example of gender minority theorizing is Light, Fletcher, and Adam (2008) work on marginalized masculinities.

A number of important findings emerged from this examination of the role of theory in research on gender and information systems. One is the existence of research papers that purport to be about gender (by virtue of this term appearing in the title, abstract or keywords) but which include no treatment of gender theory in the papers. A small number of these gender atheoretical papers were about the IS workforce. These papers typically present a review of data about the gender imbalance in the IS profession but do not employ gender theory to interpret the data. However, the vast majority of these papers are studies of IT use in which gender was included among the variables in some model or theory about IT adoption or use. But gender theories from either outside or inside the IS field were never employed to interpret and produce new knowledge from the data that resulted from these studies. A second important finding follows from this. What appears, on the surface, to be gender atheoretical research, is quite often, upon more critical examination, *implicit* gender theorizing, typically, gender essentialism. These research studies employ a gender binary to classify respondents and apply gender essentialism to interpret the responses. Hence, the finding of a gender difference in the research would implicitly invoke gender essentialism as the reason. The third important finding from this examination of theory in gender and IS research is the paucity of cumulative theoretical knowledge about gender in the IS field. At the same time this critical examination of the gender and IS research literature also gives evidence of progress. The remainder of this section highlights some gender and IS research projects that serve as exemplars of explicit theorizing about gender and IS.

Some gender and IS research imports gender theories from disciplines such as feminism, sociology and psychology to study both gender and IT use, and gender in the IS workforce. Adam (2001) showed how feminist theory can enhance ethical studies of IT use by opening up the ways in which topics such as equality and participation are considered. Kvasny (2006) used feminist standpoint theory in her study of African American women's view of information technology use. This theory focuses attention on understanding a phenomenon from the perspective of the situated knowledge and lived experiences of marginalized individuals. Such an approach to IT use stands in contrast to managerial perspectives on IT use. Greenhill and Wilson (2004) combined Marxist and feminist theory in their critical examination of at-home telework and the implications for gender issues. Doing so enabled them to consider the cost–benefits of this technology-mediated work from an employee's perspective. Tapia (2006) employed a theory of social construction of gender in case studies of women working in high tech startup companies in the dot.com era. Her findings revealed the deeply embedded misogynistic attitudes held by information technology entrepreneurs at the dawn of the new millennium. Joshi and d Schmidt (2006) also employed the social construction of gender stereotypes about the information technology field to explore differences in perceptions held by male and female students about the computer science versus the information systems fields. Finally, Light (2007) and Light et al. (2008) have demonstrated how research on gender and IT use can move beyond observations of male–female differences in technology use. Drawing upon masculinity studies they employed hegemonic masculinity theory to make visible a group of IT users who, by virtue of their marginalized masculinity, have heretofore been invisible in IS research.

In addition to gender theories imported from other disciplines, the past decade has witnessed the emergence of gender models and theories emerging from within the IS field that are building upon each other to create a body of cumulative theoretical knowledge, particularly about gender and the IS workforce. In 2002 Ahuja (2002) published a paper that used the published gender research literature as the basis of a model of barriers faced by women in the IS field. According to this model, two sets of factors – social and structural – combine to influence career choice in IS, career persistence in IS and career advancement in IS. Social factors include: *social expectations* related to gender roles; *work-family conflict*, the stress that results from incompatibility between demands of work and family; and *informal networks* that provide opportunities for socialization into the organizational culture – sometimes referred to as the "old boy's club". Structural factors include: an *occupational culture* of computing that reflects stereotypical masculine values; *lack of role models* to provide evidence that a successful career in the IS field is possible for females; and *mentoring*, which is critical to career advancement.

Gallivan (2004) subsequently employed Ahuja's (2002) model of barriers to women in IS in his investigation of IS professionals' adaptation to technological change. Specifically, he focused on her argument that social and structural factors influence not just initial IS career choice, but also subsequent career persistence and career advancement. This led to his inclusion of gender in a conceptual framework that depicted the influence of personal attributes (tolerance of ambiguity and openness to experience) and

gender on adapting to technological changes in IS departments. Ahuja's model led him to hypothesize that "gender will be related to IT professionals' technical skills, with women perceived as having lower levels of technical skills, relative to men (p. 33)." His data supported this hypothesis.

Meanwhile, Trauth (2002) employed data from interviews with women IS professionals in Australia and New Zealand to instantiate a gender theory that endeavors to explain why, in the face of structural and social barriers, some women succeed in entering and remaining in the IS field. The theory does this by focusing on within-gender variation in factors affecting the participation of women in the IS field. The individual differences theory of gender and IT contains three constructs: *individual identity* (e.g. ethnicity, age, marital status); *individual influences* (e.g. personality, interests, role models, mentors); and *environmental influences* (e.g. national, regional and organizational culture). This theory has been used to guide her subsequent research (Howcroft & Trauth, 2008; Kvasny, Trauth, & Morgan, 2009; Quesenberry & Trauth, 2012; Quesenberry, Trauth, & Morgan, 2006; Trauth & Howcroft, 2006; Trauth et al., 2009, 2008). Ridley and Young (2012), then, employed this theory along with two gender theories external to the IS field (gender essentialism and the social construction of gender) in their effort to explain the IT gender gap in Australia through a content analysis of articles about gender and IT that were published in a national newspaper.

Adya and Kaiser (2005) built upon the theoretical foundation laid by Ahuja (2002) to develop a model of IS career choice by young women. Assimilating literature from education, psychology, sociology, computer science, information technology, and business, they adapted Ahuja's model for the context of young women. In their model social factors operate in two phases. First, three social factors – *family* (research has shown that parents and siblings exert considerable direct and indirect influence on career choice), *peer group* (during adolescence peers have been shown to exert considerable influence on female self-concept, self-efficacy, and external goal orientation), and *media* (printed and electronic media have been shown to reinforce gender stereotypes that emphasize physical image rather than career choices) – are in operation. These, in turn, affect two other social factors: *role models* (coming from family or peers, and also the structural factor, teachers/counselors); and *gender stereotypes* (coming from both social factors – peers and media – and structural factors — teachers/counselors). Structural factors are likewise adapted and operate in two phases. In this model they include: *teachers/counselors* (the influence has been shown to be both positive and negative with respect to female IS career choice); *school access to technology* (this factor is cited by female IS professionals as a prominent reason for their interest in the field); *personal access to technology* (ownership and access to technology in the home has been shown to divide along gender and economic lines); and *same-sex education* (opinions are divided with respect to the benefit of sex-segregated schools in motivating females to pursue gender non-traditional careers). These structural factors (specifically school access and personal access), in turn, influence the final structural factor: *technology resources*. In this model, social and structural factors are complemented by two additional features – *individual differences* and *ethnic culture* – which drew upon Trauth's conceptualization of within-gender variation due to factors such as personality characteristics, ethnicity and cultural influences.[2]

Clayton, Beekhuyzen, and Nielsen (2012), then, built upon Adya and Kaiser's (2005) theoretical work to develop a model of factors that influence middle-school girls' interest and motivation regarding IS careers. Their model has three main components. They retained all of Adya & Kaiser's social factors but divided stereotypes into *gender stereotypes* and *ICT stereotypes*. To structural factors they added *curriculum and teaching*. They also elaborated upon Adya & Kaiser's individual differences factor making it a third major component – labeling it *individual attributes* – with the following constructs: *interpretation of experiences*; *personality and aptitude*; *goals and self-schemata*; and *subjective task value*. These three major components, were then, reframed as existing within a *cultural context* (in contrast to the label *ethnic culture* used by Adya & Kaiser). Another extension of Adya & Kaiser's model is that Clayton et al. used their expanded framework to study an intervention to address the gender imbalance, rather than to document it. Doing so shows the value of not just theoretically-informed research, but also of theoretically-informed interventions.

Finally, Riemenschneider, Armstrong, Allen, and Reid (2006) used revealed causal mapping to analyze transcripts from focus groups and interviews with female IS employees working at the U.S. corporate

[2] Additional sources used in this model not covered in the journals reviewed for this paper include: Beise, Myers, VanBrackle, and Chevli-Saroq (2003) model of women's career decisions; and the work of (Trauth (2000), Trauth et al., 2003) and (von Hellens & Nielsen, 2001; von Hellens et al., 2001, 2000) on ethnic and cultural influences on women in the IT profession.

headquarters of a Fortune 500 manufacturing organization. The resulting model of factors influencing women's voluntary turnover includes: *barriers* related to promotion (i.e. differences in criteria for promotion among male and female IS employees), *discrimination* (e.g. attitudes held by men in management, pay discrimination), and *lack of consistency* (e.g. inconsistent use of training opportunities, inconsistent application of organizational policies); *stress* related to such work features as being constantly on call and having constant "rush" deadlines for work; *managing family responsibility* (i.e. children, home responsibilities, sharing responsibilities with a spouse); *work schedule flexibility* (e.g. the existence of work flexibility policies that allow an employee to take care of personal business during normal working hours); and *job qualities* (e.g. opportunities to learn new skills). This model was subsequently employed by the research team in Armstrong, Riemenschneider, Allen, and Reid (2007).

4. Discussion

The results of this critical literature analysis reveal a considerable amount of gender and IS research that is not explicitly informed by gender theory. If theory matters in IS research, then it stands to reason that gender theory should also matter in gender and IS research. So why is it that explicit treatment of gender theory is absent in so much of the gender and IS research? One possibility is that "gender" is assumed to be a binary variable, one that is easy to include in a survey, and the results about which require no theory in order to interpret. Since all humans have a relationship to gender (by virtue of one's own gender identity and sexual orientation) it might be assumed that anyone is able to collect and interpret data about gender without needing a theory to do so. Another possibility is that these authors are unaware of the existence of gender theories and gender and IS theories. This explanation posits that gender researchers consider the topic to be at the *pre-theoretical* stage in the IS field, despite a body of work stretching back more than 20 years. This section considers some implications of these findings about the approach to theory in gender and IS research, followed by some recommendations for future research.

The backdrop to a consideration of implications and recommendations is to answer two questions: Why is research on gender relevant to studies about the relationship between information systems and organizations? and Why does research on gender and information systems require gender theory? The answer to the first question is that insofar as gender is a characteristic of IT users and IS professionals it is an appropriate factor to consider in IS and organizations research. However, it would be inappropriate to assume that gender-binary, gender differences are always salient in the same way that socio-economic class or educational background may or may not be salient to the research (but perhaps gender is included more often than class or education background because it is presumed to be easier to capture). This observation leads to the answer to the second question: theory is needed to help researchers interpret and understand the research data, and make the findings useful for subsequent practice. Hence, gender theory may show that in some instances gender is *not* salient when other factors (such as power) are taken into account. Gender theory (particularly that which focuses on intersectionality) can also allow for greater nuance and the inclusion of some individuals made invisible by the imposition of a gender binary. Finally, gender theory is needed in IS research that purports to be studying gender because it is the convention of scholarly IS research to explicitly theorize the topic being studied.

One implication for research is that absent an incremental corpus of explicitly, theoretically-informed gender and IS work, how do we build upon, critique and extend this research? How does our knowledge on this topic grow and develop? Even when the examination of some phenomenon reveals some unexpected gender findings, it is important to invoke theory to interpret and give meaning to these data. Instead, as pointed out above, what often appears is *implicit* theorizing of the gender data based on unexamined gender stereotypes. An implication for practice is that interventions and IS management behavior based on implicit or no gender theorizing would be guided by unexamined gender assumptions that could actually do more harm than good. Consider, for example, a finding of gender differences (based on an assumed gender binary) in the IS workforce or technology adoption or technology use that invokes gender stereotypes rather than gender theory for interpretation. At best, management practices might be ineffectual; at worst they could exacerbate the situation to the point of becoming discriminatory insofar as they reinforce these damaging stereotypes. Therefore, in order to address the issues uncovered in this literature analysis, some recommendations for gender and IS research going forward are offered here.

First, there is now a sufficient body of gender and IS research to warrant moving beyond purely descriptive gender and IS research to that which is theoretically-informed and more analytical in nature. At present, a considerable portion of the gender and IS research is either atheoretical or implicit theoretical. But even that research which explicitly employs gender or gender and IS theory is still largely descriptive – documenting (binary) gender differences in the IS profession or IT use. Some of this is an artifact of methodology and epistemology: quantitative and positivist studies are primarily focused on testing a hypothesis about the presence or absence of binary gender differences. But if we are to advance our understanding of gender in the IS field, then we need to move beyond simple description (e.g. women behaved this way, men behaved that way) that leads to group level stereotypes (e.g. all men relate to technology in this way; all women relate to technology in that way) to include more nuanced analyses of the phenomena. Explicit treatment of gender theories needs to be an expectation of gender and IS research. To do this we can import gender theories from women's and gender studies (and other fields that deal with underrepresented groups) in the same way that IS has imported theories from organizational behavior, general management and sociology. We can also build on gender and IS theories that currently exist in the IS field, as described in the previous section.

This leads to the second recommendation. It is time for greater diversity of methodology and epistemology in gender and IS research that is published in IS journals. We need to build on our existing body of research and move more deeply into explanatory gender and IS research (Trauth, 2011). In order to move beyond documenting gender differences, gender imbalances or evidence of gender bias we need to employ methods and epistemologies that enable us to consider the factors contributing to these observations. This means that we need both quantitative and qualitative methods and both interpretive and critical epistemologies as well as positivist ones. Whereas quantitative and positivist research is valuable for documenting the existence of aspects of the gender relations in the IS field, interpretive gender and IS research enables a more nuanced understanding of these gender relations. And the use of a critical epistemology to study gender and IS enables the researcher to question existing assumptions about gender relations. Thus, research employing interpretive and critical gender and IS research would extend our understanding of gender and IS to *how* gender relations emerge as well as to *why* they exist as they do. We also need to recognize that "gender research" isn't limited to "gender differences" research. In fact, sometimes an important finding in gender research is that *no significant gender differences* were found, as was the case with Kuhn and Joshi's (2009) study of commonly held stereotypes about IS work. Further, a deeper understanding about gender and IS can result from within gender-group studies of women only, or Black men only, or lesbians only.

The third recommendation is that it is time to become fully inclusive in gender and IS research. To do this we must broaden the conceptualization of gender in our research to include gender intersectionality and gender minorities. Just as the field of gender studies conceptualizes gender in a more nuanced way than a simple biologically, sex-based, gender binary, so too should gender and IS research. One of the consequences of the use of implicit rather than explicit gender theorizing in IS research is the tendency to impose a binary categorization onto all people. According to this essentialist assumption, all individuals can be classified into one of two groups: masculine or feminine. But implicit in this imposition is heteronormativity. This binary classification forces gender minorities (lesbian, gay, bisexual, transgender and queer, for example) or those possessing non-majority identity characteristics (minority ethnicities, disability, etc.) either into white, middle class, heteronormativity or into invisibility. Too often, "gender" in IS research is assumed to mean middle class, heterosexual, white women. Hence, a conceptualization of gender that incorporates men, nonwhite women and minority gender and sexual identities allows for both more representative and more nuanced knowledge to result. Finally, becoming familiar with contemporary conceptualizations of gender will also include reading feminist literature and theories. The benefit to gender and IS research will be the addition of valuable insights into gendered relations in the IS field.[3]

5. Conclusion

As with any other aspect of research in the IS field, analyses of gender and IS should employ gender theory. This could mean importing a feminist theory. It could mean employing or adapting one of the

[3] See Rosser (2006) for a review of feminist theories applied to the area of information technology.

gender and IS theories that have been emerging in the IS literature. Or it could mean developing new theory using grounded theory methods. The IS field should also move beyond descriptive studies to conduct theoretically-informed research whose goal is analytical and explanatory. In doing so, gender or gender and IS theory should be *explicitly* incorporated into the methodology: to inform the design of data collection and analysis, to inform the interpretation of gender findings, or to characterize the grounded analysis of data. In order to move beyond description it is also necessary to employ a broad range of research approaches – both methodological and epistemological – in the conduct of gender and IS research. Finally, the credibility of gender and IS research beyond the IS field requires that the conceptualization of gender in our research reflects an understanding of contemporary gender literature.

In weighing the arguments presented in this paper, the reader is invited to consider the following questions. As authors, would we be comfortable collecting data about other identity characteristics such as race, ethnicity, disability or religion and then interpreting these results in the absence of guiding theory, relying instead on stereotypes drawn from the media and one's own personal attitudes and experiences? As reviewers and editors would we be comfortable publishing such research? The evidence of published IS research is that the answer is "no." Therefore, this paper argues that the same expectations and norms should apply to the conduct and publication of gender research as well. Going forward we need to employ gender theory coming from models and frameworks being developed within the IS field or those imported from women's studies, masculinity studies, sexuality studies and other areas of gender studies. Where appropriate theory does not exist, we can also use grounded theory to deepen our understanding of the phenomena. A better theoretical understanding of gender and IS will not only benefit research and practice related to gender, but also contribute to a better understanding of underrepresented and marginalized groups, power relations, and overall social inclusion in the IS field.

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References

Aawal, M. A. (2012). Influence of age and genders on the relationship between computer self-efficacy and information privacy concerns. *International Journal of Technology and Human Interaction*, *8*(1), 14–37.
Adam, A. (2001). Computer ethics in a different voice. *Information and Organization*, *11*, 235–261.
Adam, A. (2002). Exploring the gender question in critical information systems. *Journal of Information Technology*, *17*, 59–67.
Adam, A., Griffiths, M., Keogh, C., Moore, K., Richardson, H., & Tattersall, A. (2006). Being an "it" in IT: Gendered identities in IT work. *European Journal of Information Systems*, *15*, 368–378.
Adam, A., Howcroft, D., & Richardson, H. (2004). A decade of neglect: Reflections on gender and IS. *New Technology, Work and Employment*, *19*(3), 222–240.
Adya, M., & Kaiser, K. M. (2005). Early determinants of women in the IT workforce: A model of girls' career choices. *Information Technology & People*, *18*(3), 230–259.
Ahuja, M. (2002). Women in the information technology profession: A literature review, synthesis and research agenda. *European Journal of Information Systems*, *11*, 20–34.
Ahuja, M. K., Chudoba, K. M., Kacmar, C. J., McKnight, H., & George, J. F. (2007). IT road warriors: Balancing work-family conflict, job autonomy, and work overload to mitigate turnover intentions. *MIS Quarterly*, *31*(1), 1–17.
Ahuja, M., & Thatcher, J. B. (2005). Moving beyond intentions and toward the theory of trying: Effects of work environment and gender on post-adoption information technology use. *MIS Quarterly*, *29*(3), 427–459.
Al-Gahtani, S. S. (2008). Testing for the applicability of the TAM model in the Arabic context: Exploring an extended TAM with three moderating factors. *Information Resources Management Journal*, *21*(4), 1–26.
Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information Management*, *44*, 681–691.
Alvarez, R. (2002). Confessions of an information worker: A critical analysis of information requirements discourse. *Information and Organization*, *12*, 85–107.
Anzaldua, G. (1999). *Borderlands/La Frontera: The New Mestiza* (2nd ed.)San Francisco, CA: Aunte Lute Press.
Armstrong, D. J., Riemenschneider, C. K., Allen, M., & Reid, M. (2007). Advancement, voluntary turnover and women in IT: A cognitive study of work-family conflict. *Information Management*, *44*(2), 142–153.
Avery, G. C., & Baker, E. (2002). Reframing the infomated household-workplace. *Information and Organization*, *12*, 109–134.
Awad, N. F., & Ragowsky, A. (2008). Establishing trust in electronic commerce through online word of mouth: An examination across genders. *Journal of Management Information Systems*, *24*(4), 101–121.
Baker, E. W., Al-Gahtani, S. S., & Hubona, G. S. (2007). The effects of gender and age on new technology implementation in a developing country: Testing the theory of planned behavior. *Information Technology & People*, *20*(4), 352–375.

Ball, K., Daniel, E. M., & Stride, C. (2012). Dimensions of employee privacy: An empirical study. *Information Technology & People*, *25*(4), 376–394.
Baroudi, J. J., & Igbaria, M. (1995). An examination of gender effects on career success of information systems employees. *Journal of Management Information Systems*, *11*(3), 181–193.
Beise, C., Myers, M., VanBrackle, L., & Chevli-Saroq, N. (2003). An examination of age, race, and sex as predictors of success in the first programming course. *Journal of Informatics Education Research*, *5*(1), 51–64.
Belanger, F. (1999). Workers' propensity to telecommute: An empirical study. *Information Management*, *35*, 139–153.
Bem, S. L. (1981). *Bem sex-role inventory*. Redwood City, CA: Consulting Psychologists Press.
Berg, E., Mörtberg, C., & Jansson, M. (2005). Emphasizing technology: Socio-technical implications. *Information Technology & People*, *18*(4), 343–358.
Berger, P. L., & Luckmann, T. (1996). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Doubleday.
Björkman, C. (2005). Feminist research and computer science: Starting a dialogue. *Information, Communication & Ethics in Society*, *3*, 179–188.
Blodgett, B. M., Xu, H., & Trauth, E. M. (2007). Lesbian, gay, bisexual and transgender (LGBT) issues in virtual worlds. *The Data Base for Advances in Information Systems*, *38*(4), 97–99.
Brown, S. A., Dennis, A. R., & Venkatesh, V. (2010). Predicting collaboration technology use: Integrating technology adoption and collaboration research. *Journal of Management Information Systems*, *7*(2), 9–53.
Capurro, R. (2008). Intercultural information ethics: Foundations and applications. *Journal of Information, Communication & Ethics in Society*, *6*(2), 116–126.
Chai, S., Das, S., & Rao, H. R. (2011–12). Factors affecting bloggers' knowledge sharing: An investigation across gender. *Journal of Management Information Systems*, *28*(3), 309–341.
Clayton, K., Beekhuyzen, J., & Nielsen, S. (2012). Now I know what ICT can do for me! *Information Systems Journal*, *22*(5), 375–390.
Connell, R. W. (1987). *Gender and power: Society, the person and sexual politics*. Stanford, CA: Stanford University Press.
Connell, R. W. (2005). *Masculinities*. Cambridge: Polity Press.
Corneliussen, H. (2005). 'I fell in love with the machine': Women's pleasure in computing. *Information, Communication & Ethics in Society*, *3*, 233–241.
Croasdell, D., McLeod, A., & Simkin, M. G. (2011). Why don't more women major in information systems? *Information Technology & People*, *24*(2), 158–183.
Dattero, R., Galup, S. D., & Quan, J. (2005). Assessing gender differences in software developers using the human capital model. *Information Resources Management Journal*, *18*(3), 68–87.
Dunlop, J. (2007). The U.S. video game industry: Analyzing representation of gender and race. *International Journal of Technology and Human Interaction*, *3*(2), 96–109.
Duxbury, L. E., Higgins, C. A., & Mills, S. (1992). After-hours telecommuting and work-family conflict: A comparative analysis. *Information Systems Research*, *3*(2), 173–190.
Eagly, A. H., Wood, W., & Diekman, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes, & H. M. Trautner (Eds.), *The Developmental Social Psychology Of Gender* (pp. 123–174). Mahweh, NJ: Erlbaum.
Fletcher, G., & Light, B. (2007). Going offline: An exploratory cultural artifact analysis of an internet dating site's development trajectories. *Information Management*, *27*, 422–431.
Gallivan, M. (2004). Examining IT professionals' adaptation to technological change: The influence of gender and personal attributes. *The Data Base for Advances in Information Systems*, *35*(3), 28–49.
Gallivan, M. J., & Benbunan-Fich, R. (2007a). Analyzing IS research productivity: An inclusive approach to global IS scholarship. *European Journal of Information Systems*, *16*, 36–53.
Gallivan, M., & Benbunan-Fich, R. (2007b). Exploring the relationship between gender and career outcomes for social scientists: Implications for research on IS scholarship. *Information Technology & People*, *21*(2), 178–204.
Gattiker, U. E., & Kelley, H. (1999). Morality and computers: Attitudes and differences in moral judgments. *Information Systems Research*, *10*(3), 233–254.
Gefen, D., & Ridings, C. M. (2005). If you spoke as she does, sir, instead of the way you do: A sociolinguistics perspective of gender differences in virtual communities. *The Data Base for Advances in Information Systems*, *36*(2), 78–92.
Gefen, D., & Straub, D. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *MIS Quarterly*, *21*(4), 389–400.
Goeke, R. J., Hogue, M., & Faley, R. H. (2010). The impact of gender and experience on the strength of the relationships between perceived data warehouse flexibility, ease-of-use, and usefulness. *Information Resources Management Journal*, *23*(2), 1–19.
Goethals, F. G., Carugati, A., & Leclercq, A. (2009). Differences in e-commerce behavior between neighboring countries — The case of France and Belgium. *The Data Base for Advances in Information Systems*, *40*(4), 88–116.
Gorbacheva, E. (2013). Evolution of the gender research agenda in the Senior Scholars' "Basket" of Journals: A literature review. *Proceedings of the Nineteenth Americas Conference on Information Systems*.
Greenhill, A., & Wilson, M. (2006). Haven or hell? Telework, flexibility and family in the e-society: A Marxist analysis. *European Journal of Information Systems*, *15*(4), 379–388.
Gregor, S. (2006). The nature of theory in information systems. *MIS Quarterly*, *30*(3), 611–642.
Gumbus, A., & Grodzinsky, F. (2004). Gender in internet employment: A study of career advancement opportunities for women in the field of ICT. *Information, Communications and Ethics in Society*, *3*, 133–142.
Gupta, B., Dasgupta, S., & Gupta, A. (2008). Adoption of ICT in a government organization in a developing country: An empirical study. *The Journal of Strategic Information Systems*, *17*, 140–154.
Guzman, I. R., & Stanton, J. M. (2009). IT occupational culture: The cultural fit and commitment of new information technologists. *Information Technology & People*, *22*(2), 157–187.
Ha, I., Yoon, Y., & Choi, M. (2007). Determinants of adoption of mobile games under mobile broadband wireless access environment. *Information Management*, *44*, 276–286.
Habib, L., & Cornford, T. (2002). Computers in the home: Domestication and gender. *Information Technology & People*, *15*(2), 159–174.
Halberstam, J. (1998). *Female masculinity*. Durham, NC: Duke University Press.
Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, *14*, 579–599.

Harding, S. (Ed.). (2004). *The feminist standpoint theory reader: Intellectual and political controversies*. New York: Routledge.
Harris, R., & Wilkinson, M. A. (2004). Situating gender: Students' perceptions of information work. *Information Technology & People*, *17*(1), 71–86.
Hartsock, N. (1997). Comments on Hekman's "Truth and method: Feminist standpoint revisited": Truth or justice? *Signs: Journal for Women in Culture and Society*, *22*(21), 367–374.
Harvey, L. (1997). A genealogical exploration of gendered genres in IT cultures. *Information Systems Journal*, *7*, 153–172.
He, J., Butler, B. S., & King, W. R. (2007). Team cognition: Development and evolution of software project teams. *Journal of Management Information Systems*, *24*(2), 261–292.
Hess, T. J., Fuller, M. A., & Mathew, J. (2005–6). Involvement and decision-making performance with a decision aid: The influence of social multimedia, gender and playfulness. *Journal of Management Information Systems*, *22*(3), 15–54.
Hooks, B (1981). *Ain't I a woman: Black women and feminism*. Boston, MA: South End Press.
Hovav, A., & D'Arcy, J. (2012). Applying an extended model of deterrence across cultures: An investigation of information systems misuse in the U.S. and South Korea. *Information Management*, *49*, 99–110.
Howcroft, D., & Trauth, E. M. (2008). The implications of a critical agenda in gender and IS research. *Information Systems Journal*, *18*(2), 185–202.
Igbaria, M., & Baroudi, J. (1995). The impact of job performance evaluations on career development prospects: An examination of gender differences in the IS workplace. *MIS Quarterly*, *19*(1), 107–123.
Igbaria, M., & Chidambaram, L. (1997). The impact of gender on career success of information systems professionals: A human capital perspective. *Information Technology & People*, *10*(1), 63–86.
Ilie, V., Van Slyke, C., Green, G., & Lou, H. (2005). Gender differences in perceptions and use of communication technologies: A diffusion of innovation approach. *Information Resources Management Journal*, *18*(3), 13–31.
Im, I., Kim, Y., & Han, H. (2008). The effects of perceived risk and technology type on users' acceptance of technologies. *Information Management*, *45*, 1–9.
Iscan, O. F., & Naktiyok (2005). Attitudes towards telecommuting: The Turkish case. *Journal of Information Technology*, *20*, 52–63.
Janvrin, D., & Morrison, J. (2000). Using a structured design approach to reduce risks in end user spreadsheet development. *Information Management*, *37*, 1–12.
Joshi, K. D., & d Schmidt, N. L. (2006). Is the information systems profession gendered? Characterization of IS professionals and IS careers. *The Data Base for Advances in Information Systems*, *37*(4), 26–41.
Joshi, K. D., & Kuhn, K. (2007). What it takes to succeed in information technology consulting: Exploring the gender typing of critical attributes. *Information Technology and People*, *20*(4), 400–424.
Katz, S., Allbritton, D., Aronis, J., Wilson, C., & Soffa, M. L. (2006). Gender, achievement and persistence in an undergraduate computer science program. *The Data Base for Advances in Information Systems*, *37*(4), 42–57.
Kim, B., & Han, Ingoo (2009). What drives the adoption of mobile data services? An approach from a value perspective. *Journal of Information Technology*, *24*, 35–45.
Kuhn, K., & Joshi, K. D. (2009). The reported and revealed importance of job attributes to aspiring information technology: A policy-capturing study of gender differences. *The Data Base for Advances in Information Systems*, *40*(3), 40–60.
Kvasny, L. (2006). Let the sisters speak: Understanding information technology from the standpoint of the "other". *The DATA BASE for Advances in Information Systems*, *37*(4), 13–25.
Kvasny, L., Greenhill, A., & Trauth, E. M. (2005). Giving voice to feminist projects in management information systems research. *International Journal of Technology and Human Interaction*, *1*(1), 1–18.
Kvasny, L., Trauth, E. M., & Morgan, A. (2009). Power relations in IT education and work: The intersectionality of gender, race and class. *Journal of Information, Communication and Ethics in Society*, *7*(2/3), 96–118.
Lai, V. S., & Chen, E. T. (1995). An assessment of the job prospects of MIS doctoral students in the academic marketplace. *Information Management*, *29*, 183–189.
Lai, V. S., & Li, H. (2005). Technology acceptance model for internet banking: An invariance analysis. *Information Management*, *42*, 373–386.
Lang, C. (2012). Sequential attrition of secondary school student interest in IT courses and careers. *Information Technology & People*, *25*(3), 281–299.
Lee, Y., & Kozar, K. A. (2009). Designing usable online stores: A landscape preference perspective. *Information Management*, *46*, 31–41.
Leimeister, J. M., Schweizer, K., Leimeister, S., & Krcmar, H. (2008). Do virtual communities matter for the social support of patients? Antecedents and effects of virtual relationships in online communities. *Information Technology & People*, *21*(4), 350–374.
Leonard, L. N. K., & Cronan, T. P. (2001). Illegal, inappropriate, and unethical behavior in an information technology context: A study to explain influences. *Journal of the Association for Information Systems*, *1* (Article 12).
Light, B. (2007). Introducing masculinity studies to information systems research: The case of Gaydar. *European Journal of Information Systems*, *16*(5), 658–665.
Light, B., Fletcher, G., & Adam, A. (2008). Gay men, Gaydar and the commodification of difference. *Information Technology & People*, *21*(3), 300–314.
Lu, J., Yu, C., & Liu, C. (2003). Learning style, learning patterns, and learning performance in a WebCT-based MIS course. *Information Management*, *40*, 497–507.
Lucas, R., & Mason, N. (2008). A survey of ethics and regulation within the ICT industry in Australia: Ethics education. *Journal of Information, Communication & Ethics in Society*, *6*(4), 349–363.
Martinsons, M., & Cheung, C. (2001). The impact of emerging practices on IS specialists: Perceptions, attitudes and role changes in Hong Kong. *Information Management*, *38*, 167–183.
Maruping, L. M., & Magni, M. (2012). What's the weather like? The effect of team learning climate, empowerment climate, and gender on individuals' technology exploration and use. *Journal of Management Information Systems*, *29*(1), 79–113.
McCoy, S., Galletta, D. F., & King, W. R. (2007). Applying TAM across cultures: The need for caution. *European Journal of Information Systems*, *16*, 81–90.
McElroy, J. C., Hendrickson, A. R., Townsend, A. M., & Demarie, S. M. (2007). Dispositional factors in internet use: Personality versus cognitive style. *MIS Quarterly*, *31*(4), 809–820.

Middleton, K. L., & Chambers, V. (2010). Approaching digital equity: Is wifi the new leveler? *Information Technology & People*, *23*(1), 4–22.
Mitchell, D. L., Klein, G., & Balloun, J. L. (1996). Mode and gender effects on survey data quality. *Information Management*, *30*, 27–34 (d gender).
Moores, T. T., & Chang, J. C. (2006). Ethical decision making in software piracy: Initial development and test of a four-component model. *MIS Quarterly*, *30*(1), 167–180.
Munro, M. C., Huff, S. L., Marcolin, B. L., & Compeau, D. R. (1997). Understanding and measuring user acceptance. *Information Management*, *33*, 45–57.
Naivinit, S. (2009). Gender, access to community telecenter and livelihood asset changes. *Journal of Information, Communication & Ethics in Society*, *7*(2/3), 128–135.
Nunamaker, J. F., Derrick, D. C., Elkins, A. C., Burgoon, J. K., & Patton, M. W. (2011). Embodied conversational agent-based kiosk for automated interviewing. *Journal of Management Information Systems*, *28*(1), 17–48.
Oleksy, W., Just, E., & Zapedowska-Kling, K. (2012). Gender issues in information and communication technologies (ICTs). *Journal of Information, communication and ethics in society*, *10*(2), 107–120.
Pace, T., Houssian, A., & McArthur, V. (2009). Are socially exclusive values embedded in the avatar creation interfaces of MMORPGs? *Journal of Information, Communication & Ethics in Society*, *7*(2/3), 192–210.
Palvia, P., & Palvia, S. (1999). An examination of the IT satisfaction of small-business users. *Information Management*, *35*, 127–137.
Pantelli, N. (2012). A community of practice view of intervention programmes: The case of women returning to IT. *Information Systems Journal*, *22*(5), 391–405.
Pantelli, N., Stack, J., Atkinson, M., & Ransay, H. (1999). The status of women in the UK IT industry: An empirical study. *European Journal of Information Systems*, *8*, 170–182.
Payton, F. C., & Kiwanuka-Tondo, J. (2009). Contemplating public policy in HIV/AIDS online content, then where is the technology spirit? *European Journal of Information Systems*, *18*, 192–204.
Phang, C. W., Kankanhalli, A., Ramakrishnan, K., & Raman, K. S. (2010). Customers' preference of online store visit strategies: An investigation of demographic variables. *European Journal of Information Systems*, *19*, 344–358.
Quesenberry, J., & Trauth, E. M. (2012). The (dis)placement of women in the IT workforce: An investigation of individual career values and organizational interventions. *Information Systems Journal*, *22*(6), 457–473.
Quesenberry, J., Trauth, E. M., & Morgan, A. (2006). Understanding the "mommy tracks": A framework for analyzing work-family issues in the IT workforce. *Information Resources Management Journal*, *19*(2), 37–53.
Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. *Information Systems Research*, *19*(4), 417–433.
Ranganathan, C., Seo, D., & Babad, Y. (2006). Switching behavior of mobile users: Do users' relational investments and demographics matter? *European Journal of Information Systems*, *15*, 269–276.
Reid, M. F., Allen, M. W., Armstrong, D. J., & Riemenschneider, C. K. (2010). Perspectives on challenges facing women in IS: The cognitive gender gap. *European Journal of Information Systems*, *19*, 526–539.
Richardson, H. (2009). Taking a feminist approach to information systems research and using the "thinking tools" provided by the sociologist Pierre Bourdieu. *Information Technology & People*, *22*(1), 2009.
Richardson, H. J., & Howcroft, D. (2006). The contradictions of CRM — A critical lens on call centres. *Information and Organization*, *16*, 143–168.
Ridley, G., & Young, J. (2012). Theoretical approaches to gender and IT: Examining some Australian evidence. *Information Systems Journal*, *22*(5), 255–373.
Riedl, R. (2010). Are there neural gender differences in online trust? An fMRI study on the perceived trustworthiness of eBay offers. *MIS Quarterly*, *34*(2), 397–428.
Riemenschneider, C., Armstrong, D., Allen, M., & Reid, M. (2006). Barriers facing women in the IT workforce. *The Database for Advances in Information Systems*, *37*(4), 58–78.
Robertson, M., Newell, S., Swan, J., Mathiassen, L., & Bjerknes, G. (2001). The issue of gender within computing: reflections from the UK and Scandinavia. *Information Systems Journal*, *11*, 111–126.
Rosser, S. V. (2006). Using the lenses of feminist theories to focus on women and technology. In M. F. Fox, D. G. Johnson, & S. V. Rosser (Eds.), *Women, Gender and Technology* (pp. 13–46). Urbana and Chicago: University of Illinois Press.
Saeed, K. A., & Abdinnour-Helm, S. (2008). Examining the effects of information system characteristics and perceived usefulness on post adoption usage of information systems. *Information Management*, *45*, 376–386.
Sanchez-Franco, M. J., Ramos, A. F. V., & Velicia, F. A. M. (2009). The moderating effect of gender on relationship quality and loyalty toward Internet service providers. *Information Management*, *46*, 196–202.
Sangran, S., Siguaw, J. A., & Guan, C. (2009). A comparative study of motivational differences for online shopping. *The Data Base for Advances in Information Systems*, *40*(4), 28–42.
Shen, A. X. L., Lee, M. K. O., Cheung, C. M. K., & Chen, H. (2010). Gender differences in intentional social action: We-intention to engage in social network-facilitated team collaboration. *Journal of Information Technology*, *25*, 152–169.
Shirazi, F. (2010). The emancipatory role of information and communication technology: a case study of internet content filtering within Iran. *Journal of Information, Communication & Ethics in Society*, *18*(1), 57–84.
Simon, S. J. (2001). The impact of culture and gender on web sites: An empirical study. *The Data Base for Advances in Information Systems*, *32*(1), 18–37.
Škerlavaj, M., Dimovski, V., & Desouza, K. C. (2010). Patterns and structures of intra-organizational learning networks within a knowledge-intensive organization. *Journal of Information Technology*, *25*, 189–204.
Smits, S. J., McLean, E. R., & Tanner, J. R. (1992). Managing high-achieving information systems professionals. *Journal of Management Information Systems*, *9*(4), 103–120.
Srite, M., & Karahanna, E. (2006). The role of espoused national cultural values in technology acceptance. *MIS Quarterly*, *30*(3), 679–704.
Tan, M., & Igbaria, M. (1994). Turnover and remuneration of information technology professionals in Singapore. *Information Management*, *26*, 219–229.
Tapia, A. H. (2006). Hostile work environment.com: Increasing participation of underrepresented groups, lessons learned from the dot-com era. *The Database for Advances in, Information Systems*, *37*(4), 79–98.

Taylor, W. A. (2004). Computer-mediated knowledge sharing and individual user differences: An exploratory study. *European Journal of Information Systems*, *13*, 52–64.
Timms, C., Lankshear, C., Anderson, N., & Courtney, L. (2008). Women ICT professionals' perceptions of working in the Australian ICT industry. *Information Technology & People*, *21*(2), 2008.
Trauth, E. M. (2000). *The culture of an information economy: Influences and impacts in the Republic of Ireland.* Boston, MA: Kluwer Academic Publishers.
Trauth, E. M. (2002). Odd girl out: An individual differences perspective on women in the IT profession. *Information Technology & People*, *15*(2), 98–118.
Trauth, E. M. (2006). Theorizing gender and information technology research. In E. M. Trauth (Ed.), *Encyclopedia of gender and information technology* (pp. 1154–1159). Hershey, PA: Idea Group Publishing.
Trauth, E. M. (2011). Rethinking gender and MIS for the twenty-first century. In R. Galliers, & W. Currie (Eds.), *The Oxford Handbook on MIS*. Oxford, UK: Oxford University Press.
Trauth, E. M., & Howcroft, D. (2006). Critical empirical research in IS: An example of gender and IT. *Information Technology & People*, *19*(3), 272–292.
Trauth, E. M., Nielsen, S. H., & von Hellens, L. A. (2003). Explaining the IT gender gap: Australia stories for the new millennium. *Journal of Research and Practice in Information Technology*, *35*(1), 7–20.
Trauth, E. M., Quesenberry, J., & Huang, H. (2006). Cross-cultural influences on women in the IT workforce. *Proceedings of the ACM SIGMIS Computer Personnel Research Conference. (Claremont, CA, April)*.
Trauth, E. M., Quesenberry, J. L., & Huang, H. (2009). Retaining women in the U.S. IT workforce: Theorizing the influence of organizational factors. *European Journal of Information Systems*, *18*, 476–497.
Trauth, E. M., Quesenberry, J. L., & Yeo, B. (2008). Environmental influences on gender in the IT workforce. *The Data Base for Advances in Information Systems*, *39*(1), 8–32.
Truman, G. E., & Baroudi, J. J. (1994). Gender differences in the information systems managerial ranks: An assessment of potential discriminatory practices. *MIS Quarterly*, *18*(2), 129–141.
Van Iwaarden, J., van der Wiele, T., Ball, L., & Millen, R. (2004). Perceptions about the quality of web sites: A survey amongst students at Northeastern University and Erasmus University. *Information Management*, *41*, 947–959.
Venkatesh, V., & Morris, M. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly*, *24*(1), 115–139.
Venkatesh, V., Thong, J. Y. L., & Xu, Xin (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, *36*(1), 157–178.
von Hellens, L. A., & Nielsen, S. H. (2001). Australian women in IT. *Communications of the ACM*, *44*(7), 46–52.
von Hellens, L. A., Nielsen, S. H., & Trauth, E. M. (2001). Breaking and entering the male domain: Women in the IT industry. *Proceedings of the 2001 ACM SIGCPR Computer Personnel Research Conference (San Diego, CA, April)*.
Von Hellens, L. A., Pringle, R., Nielsen, S. H., & Greenhill, A. (2000). People, business, and IT skills: The perspective of women in the IT industry. *Proceedings of the 2000 ACM SIGCPR Computer Personnel Research Conference*.
Wajcman, J. (1991). *Feminism confronts technology*. University Park, PA: The Pennsylvania State University Press.
Wattal, S., Racherla, P., & Mandviwalla, M. (2010). Network externalities and technology use: A quantitative analysis of intraorganizational blogs. *Journal of Management Information Systems*, *27*(1), 145–173.
Weber, J. (2005). Helpless machines and true loving care givers: a feminist critique of recent trends in human–robot interaction. *Journal of Information, Communication & Ethics in Society*, *3*, 209–218.
Webster, J., & Martocchio, J. (1992). Microcomputer playfulness: Development of a measure with workplace implications. *MIS Quarterly*, *16*(2), 201–226.
Wilson, M. (2002). Making nursing visible? Gender, technology and the care plan as script. *Information Technology & People*, *15*(2), 139–158.
Wilson, M. (2004). A conceptual framework for studying gender in information systems research. *Journal of Information Technology*, *19*, 81–92.
Winker, G. (2005). Internet research from a gender perspective: Search for differentiated use patterns. *Journal of Information, Communications & Ethics in Society*, *3*, 199–207.
Woodfield, R. (2002). Woman and information systems development: Not just a pretty (inter) face? *Information Technology & People*, *15*(2), 119–138.
Zahedi, F. Van, Pelt, W., & Srite, M. (2006). Web documents' cultural masculinity and femininity. *Journal of Management Information Systems*, *23*(1), 87–128.