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Eleanor Loiacono
WPI, eloiacon@wpi.edu

Cathy Urquhart
Business School, Manchester Metropolitan University

Cynthia Beath
McCombs School of Business, University of Texas at Austin

Annemieke Craig
School of Information Systems, Deakin University

Jason Thatcher
Department of Management, Clemson University

See next page for additional authors

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Eleanor T. Loiacono

School of Business, Worcester Polytechnic Institute
eloiacon@wpi.edu

Cathy Urquhart

Business School, Manchester Metropolitan University

Cynthia Beath

McCombs School of Business, University of Texas at Austin

Annemieke Craig

School of Information Systems, Deakin University

Jason Thatcher

Department of Management, Clemson University

Douglas R. Vogel

Department of Information Systems, City University of Hong Kong

Ilze Zigurs

College of Information Science and Technology, University of Nebraska at Omaha

Abstract:

This article discusses an important panel held at ICIS 2011 in Shanghai to mark over thirty years of an ICIS institution, the ICIS Women's Breakfast. The panel addressed the controversial question—is there still a need for the ICIS Women's Breakfast? Panelists were asked if the ICIS Women's Breakfast could be seen as divisive, and if women's issues are different from issues of diversity such as race or sexual orientation. They were also asked why they thought women were still underrepresented in our academic community, and if the lack of women at senior levels was a concern for the community. Finally, the panelists were asked what practices the community would need to adopt to combat what could be seen as structural discrimination in our community, which we believe reflects the wider world we live in. We frame the debate and the ensuing discussion in the literature about women in academia, and conclude with some practical and constructive recommendations for the community as a whole.

Keywords: women in academia; gender; gender bias; discrimination; diversity; promoting women; mentoring; feminism

Editor's Note: The article is based on a panel presentation at the International Conference on Information Systems, held in Shanghai China, December 2011.

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I. INTRODUCTION

The ICIS Women's Breakfast started in 1980 with just a few women—Mary Culnan, Kate Kaiser, Beverly Kahn, Lynne Markus, Margi Olson, and Gemma Welsch—around a table in a hotel in Philadelphia. The focus of the Women's Breakfast has been—and continues to be—on women's issues in the IS community. The Women's Breakfast has grown over the years and has seen attendance reach levels of 164 women. The IS Women's Network on LinkedIn has over 200 women members. One possible explanation for this vigorous activity is that the real position of women in our academic community, and in our associated profession of IT, has not improved significantly over time.

In practice, the overall percentage of women in IT “has dropped from a high of 40 percent in 1986, to about 29 percent at the end of 1999, and is still dropping” [Ramsey and McCorduck, 2005]. This underrepresentation of women is reflected in the IS academic community as well. If we were to look at, for instance, the number of women who are senior editors on the *MIS Quarterly* board, we would find only five out of eighteen. The vast majority of chief editorships of our top journals are occupied by men. Lamp's [2007] examination of IS journals found that there were twenty-five journals, of which eight were in the *Master Journal List*, with no perceived female representation in an editorial position at any level. Additionally, it is still common to find all male panels at conferences and all male conference committees. Further, a consistently low number of women in the field have published in top tier IS journals. Only 16.7 percent of the “Top 251” most productive researchers were women, and of the “Top 30” scholars, only three were women [Gallivan and Benbunan-Fich, 2006]. Though slightly higher than previous numbers, these low figures are troubling.

The U.S. Department of Education reports that the number of women in computer and information sciences has decreased over the past twenty years. This decrease exceeds that in other fields such as mathematics and sciences. In fact, the percentage of women in senior professorial positions ranges from 5 percent to 18 percent [White, 2001]. While at one time the proportions of women in IS were greater than the proportions of women in computer and information sciences, there is no evidence to suggest this continues to be the case. So why is the lack of representation of women in our academic community, and other academic communities, such a persistent problem?

The ICIS Women's Breakfast was asked to become “more inclusive” and become a forum for diversity in general rather than focus on women's issues in IS specifically. This request, which seemed to stem from the perception that some men felt excluded from the breakfast, was puzzling because men have been welcomed at the event for years and are always welcome.

To face the issue head on, a panel of IS scholars, both men and women, met to discuss whether an event that focuses specifically on the issues faced by women in the IS academic discipline is necessary. This ICIS 2011 panel was intended to provoke debate and discussion around the question of the relevance of the ICIS Women's Breakfast, and to take stock of women's position in IS, thirty years after the breakfast was founded.

Each panelist was asked to comment on the following questions:

- Is there still a need for the ICIS Women's Breakfast?
- Is a forum that focuses on women's issues or any other minority issues divisive to the IS community?
- Is there still a “glass ceiling”?
- Are women's issues different from issues of ethnicity or sexuality?
- Are women still underrepresented in IS? And, if so, why?
- As a community, should we be concerned that there are few women in senior level positions in IS? If yes, how can we help women to reach senior levels in IS?
- How far can we help each other? Does structural discrimination exist, and, if it does, how can it be dealt with?

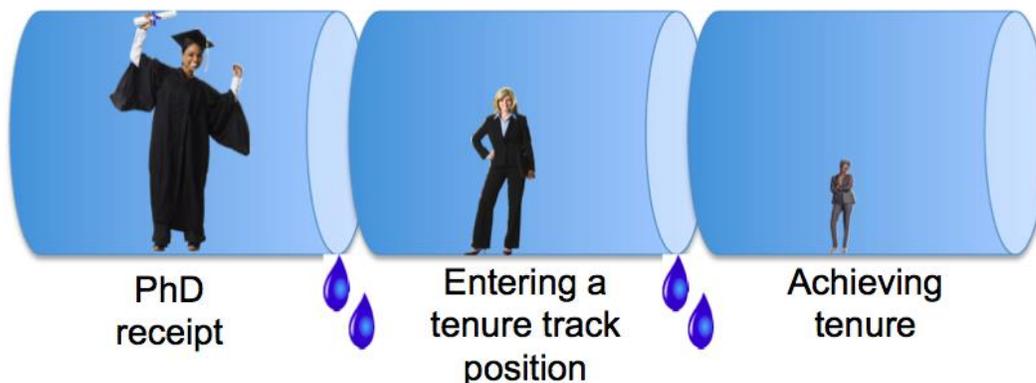
Each panelist spoke for a few minutes and answered questions from the audience. After each panelist had spoken, the floor was opened and a lively debate ensued. This report summarizes the panelists' responses to the questions and the discussion that followed. The report is structured as follows. First, the debate is given a context using current literature on the position of women in academia. Second, the responses to each question and related discussion are presented and the open discussion session described. Finally, we discuss the steps needed to ensure the dialogue continues, again framing the discussion with current literature.

II. POSITIONING WOMEN IN ACADEMIA

Women remain a minority in the IS profession. In fact, "the proportion of women continues to drop from a high of 40 percent in 1986, to about 29 percent at the end of 1999, and is still dropping" [Ramsey and McCorduck, 2005]. These figures are mirrored by low participation by women in the IS academic field, and the two issues are probably not unrelated, as young women need role models to enter the IT profession [Sibley, 2010].

In academia generally, women's participation is of great concern. Though women earn doctorates at nearly the same rate as men, they represent fewer than 40 percent of full-time faculty positions [West and Curtis, 2006]. This number is even smaller among those in computer science and engineering-related degrees, where women hold fewer than 20 percent of full professorships [Burrelli, 2008].

So why do women not stay as academics for the long haul? The "leaky pipeline" or "pool problem" is well established in the academic literature (see Figure 1). Women are more likely than men to leave academia prior to obtaining tenure [Goulden, Mason and Frasch, 2011]. Many women cite a "chilly climate" as the reason they leave an academic position [Crawford and MacLeod, 1990; Huang, 2008; Litzler, Lange and Brainard, 2005; Sandler, Silverberg, and Hall, 1996]. Oftentimes that chilly climate results from biases and gender stereotyping, either inadvertently or purposefully [Williams, Alon and Bornstein, 2006]. Evidence suggests that women leave because they feel "scrutinized and relatively powerless" [Huang, 2008]. They feel they work in environments characterized by cognitive differences, lack of mentoring, and work-family life imbalances [Goulden et al., 2011; Valian, 1998]. In fact, one of the most important causes for women leaving is marriage and childbirth, with research-intensive universities viewed as not family-friendly. Evidence supports this view; when compared to their male counterparts, women with children are 35 percent less likely to accept a tenure track position after receiving their PhD; if they do enter such a position, they are 27 percent less likely to receive tenure than their male colleagues [Goulden et al., 2011]. Tenured female faculty are also 50 percent more likely to divorce than tenured males [Mason and Goulden, 2004].



**Figure 1. Leaks in the Women PhDs in the Sciences Pool
[Based on Goulden, Mason and Frasch, 2011]**

Specifically, four major themes appear as the fundamental issues women face when working in academia. These themes have been characterised as the Double Bind, Tokenism and Isolationism, Women Behaving as Men, and Family [Williams et al., 2006].

The Double Bind

First, women feel a *double bind* between, on the one hand, getting recognition for their work and, on the other hand, trying not to draw too much attention to themselves so they would not seem needy or require special treatment [Williams et al., 2006]. As one woman pointed out,

I came and I taught a full load my first year and that was considered normal and then, all the three men who were hired after me all got these big course reductions because, "Oh they have to make

this transition." It's like, "Oh gee, and I didn't somehow?" And for a few years I'd been doing this committee and I was sick of it, and I said "You know, can I just do something else? I'm tired of it and I'm not doing a good job anymore, it's time for somebody else to do it." They just said, "Oh boy, well there just isn't anybody else I can ask because, you know, well, there's so-and-so but he's writing a book, I can't ask him." I said, "He's writing a book? I'm writing a book! How come his book counts more?" And yet, you know, it wouldn't occur to me to say, "I'm writing this book, you know, give me a break on my service work." [It] never would have occurred to me and I'm not sure that I would have gotten it if I asked [Williams et al., 2006, p. 3].

In short, "There are assumptions that [men] make that women don't make" [Williams et al., 2006, p. 4].

These comments show an ambivalent sexism that is often found in teaching and service at academic institutions. Whether due to socialization or another reason, *women simply don't ask* [Babcock and Laschever, 2007]. They don't ask for raises. They don't ask for promotions. They don't ask for help at home. By not asking or negotiating, as men do, women are hindered in getting the resources that will help them succeed. In academia, Babcock and Laschever [2007] found that this behavior was evident in female doctoral students, who did not receive teaching experience because they did not ask for their own courses to teach, and in newly minted female PhDs, who accepted salaries 7.9 percent (\$4,000) less than their male counterparts. Though seemingly an insignificant difference at first glance, this discrepancy is compounded as wage increases are based on this initial salary. The result can be an income difference over forty years of over \$500,000, compared to male PhDs who *asked*.

Why don't women ask? Women are often afraid of "no," seeing it as an absolute. Men, on the contrary, often see "no" as a temporary setback meaning, "*not now*," "*maybe later*," "*most likely in the future*" [Evans, 2000]. By speaking up and not being afraid of a negative response, men are more likely to get what they need to succeed. If they do not get it now, they can simply ask for it again later. Often, women fear that, as the previous comments indicate, speaking up will hurt how they are perceived. "I may be perceived as needy or unable to do my job." In contrast, men, by being willing to ask, not only get what they want, they are demonstrating to their superiors that their work is so important and valuable that they need additional resources. In essence, they do not apologize or feel guilty for asking for additional resources.

Women feel like imposters, who may be found out at any time. Every year still, at the Grace Hopper Celebration¹ of Women in the United States, hundreds of women choose to attend the "Imposter Panel—do you belong?" During the 2010 session even the panelists admitted that they frequently felt like imposters! A quote in Pruitt, Johnson, Catlin, and Knox [2010] summarizes this feeling nicely:

I think many of us...have been socialized sometimes to have that imposter syndrome. To have that feeling of how we're really not supposed to be where we're at. So, I think any kind of challenge, even if it's a poorly evidenced challenge, sometimes causes me to wonder if other people have that question...and think that I'm being overly confident [p. 1157].

Confidence and self-confidence are key to assurance in one's judgments, and this ties in to this unwillingness of women to ask [Harris and Leberman, 2012]. The lack of self-assurance, compounded with family responsibilities, may add to the fact that the rate of submission of subsequent grant applications by first-time female applicants, regardless of first-time success, is low compared to male applicants [Hosek et al., 2005].

Tokenism and Social Isolationism

The second theme relates to tokenism and social isolationism. Women often feel they are definitely not one of the boys in a male-dominated department and thus feel a sense of insecurity and isolation [Williams et al., 2006]. Introduced in 1975 by Judith Long Law, the concept of the "token" woman within academia has been used to describe a hollow attempt to include women in academia. However, as a token, the woman, or the few women faculty members, are separated psychologically from both male colleagues and other women.

As one woman indicated,

My department is very cohesive, and every morning the guys in the department get together and go out for coffee, just downstairs here....And everybody's invited, but generally if I show up I'm the only woman. And often they talk about basketball, sports, skiing over the weekend, but ... if there's some issue in the department you know, about the department head, or funding, or this, that gets

¹ Note the word "celebration" is used rather than "conference."



discussed too, and they're all in the loop. And the women don't know. And I mean I sort of stumbled on this by accident... And so, I sat down one time...and that happened to be a morning when all this was going on about funding and we were looking for a new department head, so this is a big deal. And who's coming up and who's applied and who hasn't. And I thought, "Wow, these are things I haven't heard anywhere else." And it's a subtle thing, I mean they're not, they are not actively excluding anybody, but I think because the other women aren't showing up, they're all missing out on this [Williams et al., 2006, p. 7].

Though the isolation may not be intentional, its effects are real. Without knowing the issues that are relevant to her university and department, a woman lacks the strategic knowledge her male colleagues possess in career decision making. Her isolation is thus likely to deepen as her male colleagues, making more informed and thus better decisions, succeed further in their careers. They are also armed with more information that empowers them to negotiate more effectively. It is important that women realize and take action against the maintenance of tokenism or else the status quo and lack of balance will continue [Young, MacKenzie and Sherif, 1980].

Further, tokenism and isolation may lead to situations found by Heilbrun [1997] where the "old boys were cloning themselves, slipping into tenured positions young men who closely resemble them" [p. 125]. Women may end up in situations like the case of the Swedish Medical Research Council, where it was found that in order to receive the same score, female applicants needed to be 2.5 times more productive than the average male applicant [Wennerås and Wold, 1997]. Though the discrimination may not be intentional, the impacts are systemic and affect the lives of women, since women receive fewer post-doctoral fellowships as a result.

Women Behaving as Men

Third, women often feel that they have to behave as men to fit in. In fact, senior women have found this to be a necessary survival tactic.

I've seen lots of women, senior women, behave that way. And even not just as far as the working long hours, but even adopting male mannerisms. I don't know how to describe it, but sort of really aggressive and not putting up with any crap and almost having a chip on their shoulder and also going out of their way to not mentor young women. You would think that women above you would be the ones that would be the obvious people to really help the next generation of women and it usually turns out that they're the worst. ...I mean not everyone but I've found that my best mentoring comes from men that are sensitive to the issue [Huang, 2008, p. 7].

I'd always said that women in a generation above, in order to survive in science and academia, had to be the kind of person who didn't care what other people thought. And then consequently they were dubbed as difficult people, but they needed that attribute to survive. ...She had to be impervious, immune to so much of the gender bias and just keep going [Huang, 2008, p. 7].

This behaviour is often at the expense of relationships with other colleagues and to the detriment of younger female faculty who would benefit from mentorship from a more senior female colleague. In fact, mentorship has been shown to be critical to the success of academic women in general [Harris and Leberman, 2012; Pruitt et al., 2010]. Women who have mentors are more likely to negotiate, apply for promotion, and go up for full professorship [Babcock and Laschever, 2007; Pruitt et al., 2010]. The more role models women have, the more empowered they feel, as they can see and hear examples of how others have balanced work and home. This leads to the last theme or issue faced by women academics: family.

Family

Women academics often feel that there is a bias against those who have children [Williams et al, 2006]. In fact, many try to cover up their familial responsibilities for fear of seeming uncommitted to their work.

I know...from the start coming here, [that I] have been very conscious about... if I have to run and get my son from childcare or whatever, you know that that is going to be frowned upon, and trying to the best of my ability to make that all look like it doesn't exist [Williams et al., 2006, p. 11].

In addition to the gender issues women face at work, their outside responsibilities factor into their time commitments more significantly than they do for their male counterparts. In a study looking at academics and housework, women (at 54 percent) were found to take on nearly double the workload of their male colleagues (28 percent) [Schiebinger and Gilmartin, 2010]. Women tend to take on core household duties, such as cleaning, grocery shopping, and cooking. This work takes up to twenty hours a week on top of their professional workload. Though women

academics may choose to outsource some of these tasks, it does not lower their burden completely. In fact, given discrepancies in pay between male and female academics, it may put a more undue financial burden on women academics who chose to do so.

In fact, caregiving has been viewed as a negative in academia [Drago et al., 2004; Williams, 2000, 2004]. This makes it difficult for women who, more than their male colleagues, end up taking care of children and aging parents [Fox, Fonseca and Bao, 2011]. Women with children spend more than one-hundred hours a week on work, caregiving, and housework compared to men at eighty-six hours [Mason, Stacy and Goulden, 2011]. This pattern continues through age fifty.

So academia is facing the loss of a talented pool of educators, researchers, and community builders—women. Whether it be due to family concerns, inadvertent sexism, or a double bind problem, it is entirely appropriate that the IS community at large should discuss how these issues can be addressed, because encouraging the participation of women is germane to sustaining the health of the IS community itself. A vibrant and productive academic community leverages all its talent, from whatever source.

Luckily, the perfect forum to start a productive discourse on these concerns exists in our community. For thirty years, the ICIS Women's Breakfast has provided an outlet for IS professionals to discuss the issues facing women and to facilitate their ability to network. The panel held at the 2011 Women's Breakfast was an opportunity to reflect on strides made by women in the IS field and to debate its relevance as they relate to the issues faced by women in IS. The panelists were asked to address this issue, along with others, and provide their perspective on it.

III. PANELIST VIEWPOINTS

Cynthia Beath began the discussion by answering the first two questions. Is there still a need for the ICIS Women's Breakfast? Yes! Is it divisive to the IS community?

Yes, but then so are tracks! So are Special Interest Groups (SIGs)! Any community of practice divides one community from another larger community. Is this threatening? Is the women's breakfast threatening? No. Absolutely not, and most men in the IS community seem to be supportive of it.

Cynthia went on to say:

In terms of a glass ceiling, there most certainly is a glass ceiling and this relates to why women are not well represented in the tenure ranks of IS. In the '80s you could go through a tenure packet and find letters saying "It's too bad that she is a woman, because she is really a great researcher." Today you don't find those letters in tenure packets, because no one writes that down in a letter anymore. What they do is lay the ground work for denial of tenure very slowly and subtly. It is a gradual and creeping process. During the years prior to the tenure decision, people will say things like, "that paper needed another revision," or "that's really not an A journal," or "she is not into research. She is more into being a mom." Or "the reason she gets great teaching evaluations is because she is gorgeous." These are all real examples. In the end, the process by which women are denied tenure because of their gender has become much, much more subtle, much more gradual, and much more difficult to find and root out. This puts women in a position of having to do such a good job that the tenure committee, even though all this ammunition against the female candidate has been created, chooses not to use it.

Should we be concerned by this? Yes! And, here is what we can do about it. First, when someone makes a statement like "she gets great teaching evaluations because she is gorgeous," ask, in the most innocuous and non-threatening way, "how do you know?" If the answer is, "a student said so," then ask, "how many students?" The only way to combat these types of subtle blows is to show that someone is listening and remembering what is being said. Second, transparency is key. Share what you know. Share your salary. Share your discussion with the Dean. Share your discussion with the Department Chair. Men do this all the time. Women tend to view this information as private. They have a different zone of privacy it seems. But, women need to share what they know about the organization and how it functions. They need to share what is happening with each other and with their colleagues. If you do not share, then others will not share. Women need to know how what others within the department and school overall are being told compares to what they are being told. At public universities, certain information, like salaries, can be found online. Finally,



mentor honestly. Mentoring and coaching is important, but be honest. It can't just be a pat on the back. It has to be honest and constructive.

Annemieke Craig focused on the first question—of the need for a ICIS Women's Breakfast.

Yes, there is a need for every breakfast, lunch, or dinner which enables women to get together to do networking, to do mentoring, to actually discuss the issues, and hopefully to bring some men along so they can hear exactly what is going on.

To support her stance, she told two stories from Margolis and Fishers' [2002] research on "Unlocking the Clubhouse." The first story focused on the development of airbags. When airbags were first developed for use in cars they were tested and proven safe. However, after being deployed in vehicles, it was found that a disproportionate number of women and children were being fatally injured by them. After investigation, it was found that the airbags had been tested very well on the average *male* shape and size. No one had tested it on the average woman or child. They have since been redeveloped, tested, and are now safe for all. If there had been more women involved in its development, the fatal flaws in the airbag may have been avoided.

The second story relates to a voice recognition system which was calibrated to male voices only and therefore not able to hear women's voices [Margolis and Fisher, 2002]. Since this fact went undiscovered until after the software was sold, this meant that many women involved in conversations using this software were not heard. When the software was later upgraded to a video-conferencing system which moved the camera based on where the voice was coming from, it meant that women were not only not heard, but not seen.

Lest people think that these issues are no longer pertinent, Annemieke's final story highlighted the underrepresentation of women in Wikipedia, the fifth most popular website in the world. Wikipedia has over 400 million hits every month with over 3.7 million English language articles on it. In terms of access, both men and women have equal access, right? Yes, but 90 percent of Wikipedia's editors are males. Research looking into the content of Wikipedia [Khanna, 2012] has shown that women and men have a very different view of the past. What we currently see on Wikipedia has more of a male perspective. Further, women who do go to contribute content find the technology difficult to use and not very intuitive and hence tend to give up on it. For those who do persist, they find the actual environment is also not very supportive. Acknowledging this problem, Wikipedia has agreed to increase the number of women editors from 10 percent to 25 percent by 2015. Through the discussion with the audience, another suggested reason for women not contributing content to Wikipedia as much as men may be due to the "imposter syndrome." Women often feel they are not experts, when, in fact, they are.

Annemieke said *the reason for these stories is to illustrate how subtle these problems can be. They can be hidden.* She concluded with a poem, *Relative Complexity*, by an Australian poet, Cate Kennedy, to illustrate her point.

*In my parents' lounge room after Christmas dinner
I am talking to my brother the computer programmer.
He is explaining to me the principles of cyberspace.
"It is only relatively complex," he says finally, peeling the icing off his fruitcake,
"It is mainly a system of binaries, permutations of zero and one.
So the data may be stored as, say, zero, zero, one, one one, zero, zero one."
My mother sighs.
She is next to us, half-listening.
She is knitting a fair-isle sweater.
"I'll never understand how you get your brain around it," she says.
"It's beyond me," she says, and turns half her attention back
to her fair-isle pattern:
Purl purl plain, plain plain plain purl purl.
[Kennedy, 1996]*

Annemieke concluded that it is important to continue activities in our community, such as the ICIS Women's Breakfast, and to try and get men to come. To make the IS community more aware of the issues, each woman who attends the breakfast should be encouraged to ask a man to attend alongside her.

Doug Vogel agreed that the ICIS Women's Breakfast was important. He said:

It is important to us as a society. It is important to us personally. It is just important. Women are still underrepresented in the Association for Information Systems (AIS), which has only 34 percent

female members. Women bring a different perspective, and there are things that our discipline needs that come from this group. It's really that important. Drawing from personal experience, women are 50 percent of the PhD candidates at City University of Hong Kong so that is a bright spot, but the department struggles to get female faculty and is underrepresented in terms of female faculty members. The reasons cited by many of the PhD students was that they came from China and China, due to its one child policy, was a lot more equal. However, there are still worries about the decline of women in IS, especially in Europe.

As AIS President, Doug Vogel said that he hopes to better understand the needs of the female community within AIS, in order to better support them.

Ilze Zigurs started by stating that in her first thirteen years in academia, she had two gender equity adjustments. In order to foster community among her female colleagues at one university, she hosted monthly women's dinners for the ten female faculty members in the college of business. She noted that some of her male colleagues looked suspiciously at these dinners, in an era when you expected we would be past such concerns. She provided her personal reflection on "eras."

First, there was women's liberation, where the motto was "equal pay for equal work" or "raises, not roses." Then there was the era of trying to beat men at their own game. Women tried to be more masculine than the men. Women wore suits and little things that looked like ties. Women tried to outperform on the terms set by men. The dark side of that was that women often avoided each other, so as not to be seen as "contaminated" by being too feminine. Next came, the era of language. Language held the power. If women could just get he/she instead of he into all the writing or chairperson instead of chairman, that would make women equal to men. What we seem to be facing now is a retrenching, anti-affirmative action, a sort of return to conservatism, masked as family values. It's all very disturbing.

Ilze went on to say:

So, do we need a women's breakfast? Of course we do. And, lunch, and dinner, and snacks in between. Is it divisive to separate ourselves? It is divisive in the sense that you create unique pockets of different things that you do. We should not be separate, but unique. Like other minorities, we face similar yet different issues. As a saying from Singapore goes, "we are all different, we are all the same." We are all in this together. The question becomes during all these eras, did we ever have an appreciation for people in all their diversity. Resources, such as the Grace Hopper Celebration of Women in Computing (<http://gracehopper.org>) and the National Center for Women in Technology (<http://www.ncwit.org/>) provide resources to women in technology. Women should not be quiet, separate, or seek to be like others, they should seek to be their best selves.

She concluded by quoting from the famous Chinese writer, Lu Hsun:

"Hope cannot be said to exist, nor can it be said not to exist. It is just like roads across the earth. For actually the earth had no roads to begin with, but when many men pass one way, a road is made."

So, get on that road and do not travel alone—take all kinds of people with you!

Jason Thatcher, serving his third year as Vice President of Membership at AIS, began by stating that in his first year as VP of Membership at AIS the question of whether a Women's Breakfast was needed came up as well. In fact, it seemed to come up every few years.

Is it needed? Yes! As long as women are able and want to have this breakfast, it should exist. I have tried to help and institutionalize the breakfast more under the VP of Membership who can support it. The breakfast is important for two reasons. First people still want it. Second, I have two daughters, and when they get old enough to become faculty, I want them to have institutions they can come to and solicit advice from peers and mentors and role models.

Jason also pointed out that, although the AIS Council is male dominated, most senior men in the field support the Women's Breakfast.



*Only, sometimes, a whisper campaign about the Women's Breakfast seems to start. It seems to happen semi-annually. How do we fight it? First, become familiar with the people who are decision makers in the community. These people are not always visible. Look to people in AIS and let them know you appreciate their support. They need to be made aware of the issues that are personally and professionally not being taken up by the Council. Second, show up at the conferences. People need to see that the community exists. It may help to do informal events, such as cocktail hours. Extend your presence—make it felt and seen even beyond AIS. Third, transparency is important. The question often arises when considering the hiring of a minority, are we hiring that person because they are a minority or because she or he is good? The "concerns" often arise in quiet conversations and the only way to combat them is to show up and participate in those conversations. Even when minorities are hired, they may not get raises at the same rate and so that needs to be discussed more openly. Help make decisions equitable and transparent. Finally, there is an issue with process. There is a tremendous amount of *tacit* process. What is a good paper? How do you structure it? There is a masculinity manifest, often times, in disciplines and their processes. It is important to understand those processes, regardless of the framing of the language.*

IV. ENSUING DISCUSSION

A lively discussion ensued after each panelist had spoken. One attendee noted that she was grateful that her job in academia allowed her to be a full-time mother and full-time professional. She had been able to manage career and family at the same time, working non-traditional places, non-traditional hours.

A question came from a PhD student attendee with three children, who was entering the job market. She wondered what she should look for when considering an academic position. Cynthia Beath suggested that she first and foremost trust her intuition when comparing schools: "If there is a school that you feel comfortable with and like the people, that is probably a better fit. Don't get distracted by rankings." Another attendee commented that it is also important to do the research ahead of time, in order to ensure you know the school's track record with hiring women and if they are supportive. She also suggested that it is a good idea to ask current female faculty members or PhD students about the environment toward women at that institution.

One attendee pointed out that while we want to appoint women, when women are appointed they will often be accused of being appointed because they are women, and not because they had the merit. This woman suggested that the reason for this was that the selection criteria by which IS academics are judged were created, and are dominated, by men. Unless we go back and change those criteria fundamentally, women are going to lose out, she said. They will lose role models and the next generation will never be able to rise. She believes AIS needs to look at the professional criteria by which we are all judged. There should be more contribution by women in developing these criteria.

Agreeing with this point, another attendee pointed out that it gets back to the transparency issue. At her university, she challenged a criticism that was made of her that she did not have enough publications. She explained to the committee that she had had two children within a two-year span, and that is why the gap was there. It is important to challenge what we are told if we disagree.

Another attendee brought up the issue of different perspectives on discrimination of women in academia. Oftentimes, newer women faculty do not see a difference in the way they are treated compared to their male colleagues. It is often the women who have been in the field for some time who see the subtle discriminatory practices that were discussed during the panel.

What seemed to emerge from the panel was that every woman's journey is unique in many ways, but similar in many others. As with any academic field, demands differ somewhat from university to university and based on one's personal life (e.g., marriage, children, and other familial responsibilities). Though there are different factors that impact individual cases, there are some overriding factors that impact all women in academia, and they need to be addressed. At first glance they may seem like unrelated issues, but in fact they are rooted in power imbalances we observe in society every day. They are real and impacting our field in terms of women's participation.

V. WHAT SHOULD BE DONE

We need events like the ICIS Women's Breakfast to discuss the unique and specific issues faced by women. If we do not invest in events like the Women's Breakfast and resources like the IS Women's Network on LinkedIn, both of which support women in IS, we cease a dialogue that has become critical in understanding the needs of women IS academics and how to foster their desire and ability to remain in academia. As research into the lack of women in

STEM fields suggests, female role models play a key part in encouraging women to pursue careers in science and engineering. Shutting down the dialogue among IS women academics would only heighten the perception of a “chilly” environment toward women in academia and lead women to flee academia at a time when their mentorship and leadership are most needed.

So what needs to be done to ensure the dialogue continues and women are encouraged to continue their IS academic careers?

1. *Networking—Continue the ICIS Women’s Breakfast.* Overwhelmingly, it was the view of the panelists and audience that the ICIS Women’s Breakfast needs to continue. The process by which women are denied tenure and other important markers of seniority has become much more subtle, and thus there needs to be this forum for discussion and mentoring. The Breakfast has always provided an easy way for men to be engaged in the discussion, too.
2. *Expand the Network—Grow dialogue opportunities.* There is a need for more formal and informal get-togethers of women faculty. Attendees were very excited about adding events at AMCIS, ECIS, and PACIS. Informal gatherings, such as happy hours and short get-togethers before conference attendees head out to dinner or other events, were seen as a way to provide opportunities for women to network and discuss issues without having to miss other breakfast meetings. Consequently at ECIS and AMCIS successful events were held in 2012. Web 2.0 and social media also give the chance for extended discussion and networking between conferences as well (important in an era of restricted travel budgets). The LinkedIn group IS Women’s Network and the Facebook group ICIS Women’s Network both represent a way for women to build their networks.

The need for women to network is supported in the research as well. Understanding that women are seriously underrepresented in the senior ranks, New Zealand universities have employed the New Zealand Women in Leadership Program. One of its major focuses is on network building. As a result of this program, the number of women faculty going up for and receiving promotion has increased [Harris and Leberman, 2012]. This example demonstrates the value of increased networking with other women both within and without your university or your field.

3. *Transparency.* Women need to share information about their salaries and institutional processes. Without this transparency, it will be hard to distinguish the sometimes subtle ways in which women are treated differently at the department and institutional level. The veil of secrecy only makes it easier for hidden discrimination to exist.

Women at doctoral granting universities earned on average 78.1 percent of the salary their male counterparts obtained [American Association of University Professors, 2008]. Though part of the difference was attributed to men being more likely to hold full-time appointments, it is important that women understand how their salaries and other resources compare to others. This is especially important since women often undervalue their own worth unless it is brought to their attention. As mentioned earlier, by negotiating their entry salary or benefits upward, men often start with higher base salaries and resources than their female counterparts, which results in a substantial income difference at the end of one’s career. In order to counter this problem, women need to be more proactive about getting information that will help them know where they stand relative to their colleagues.

4. *Be part of the conversation.* In order to combat the often subtle derogatory comments made by some male faculty regarding female faculty, we need to be listening and willing to gently, but firmly, question those remarks. If not, we risk these unproven statements being taken as fact when tenure decision time rolls around. In order to fend off the “cloning of the old boys” or the tacit requirement that women be more productive than men to receive the same recognition, people must demonstrate that someone is listening to these comments and is willing to question them. Ask why. Why is she not as qualified as he is? Maybe she is not, but assumptions and generalities should be questioned. Again discrimination may not be intentional, but its impact can be devastating to the field as well as the individual.
5. *Mentoring.* Women need to support each other in navigating the difficult terrain that is the academic life. This does not mean sugar coating feedback. It means mentoring honestly, and giving advice that is based in reality.

Mentoring is the number one resource that helps propel women academics in their careers. Specifically, women who have mentors are more likely to go up for and attain promotions [Coogan and Chen, 2007; Fouad and Carter, 1992; Gardiner, Tiggemann, Kearns and Marshall, 2007; Knox and McGovern, 1988]. Pruitt et al. [2010] summarized the sentiments of one full professor who had never had a mentor thus: “she



felt that because of this absence, she missed an opportunity to see how another woman made choices about balancing work, family, and community obligations” [p. 1158]. It is detrimental to the IS field for any woman in academia to feel that in order to succeed, she must adopt the “male characteristics” of aggression and individualism, and, following her male colleagues' lead, *not* mentor junior women. Such a situation may only perpetuate a tokenism approach to including women in IS academia. Mentoring matters, and through mentors we gain role models who propel women as a group to greater heights.

We must also prepare our female faculty to mentor our graduate and undergraduate students more effectively. This is critical as the number of women in Science, Technology, Engineering, and Mathematics (S.T.E.M.) fields is extremely low. The impacts of mentoring can flow down from women in academia to their students entering practice. Including women outside of academics is another way to expand one's network and mentoring opportunities for herself and her students [Craig and Coldwell, 2010; Sibley, 2010].

Consideration also needs to be given by women to obtaining a sponsor. A mentor provides career advice and guidance while a sponsor tends to be someone high up in the organization who is an advocate for the woman in her professional development [Ibarra, Carter and Silva, 2010].

6. *Share resources.* There are many resources, such as pamphlets, books, and forums, developed to help women become more empowered. Organizations, such as the Anita Borg Institute (<http://anitaborg.org/>), which hosts the Grace Hopper Celebration of Women in Computing and NCWIT, provide resources on mentoring, women in leadership roles, and changing the image of women in technology. However, it is often difficult and time consuming to find such resources focusing on the specific issues women in IS academia face. Therefore, it is important that IS women academics share with female colleagues the resources they find to be helpful in managing their careers. Through mentoring and networking forums, such as the IS Women's Network, such resources can be shared more broadly among women who are looking for ways to enhance their teaching, research, community, or work-life balance.
7. *Influence decision makers or become one.* It is important for women to know who the decision makers are in the IS community and at their universities. Show up to conferences. Tell your AIS Council Representatives what you need. Better yet, become a decision maker. As the literature suggests, women need to obtain positions of power and influence in order to serve as role models to others, sending the message that women can hold positions of power and help form policy [Pruitt et al., 2010]. Active participation in one's institutions provides opportunities to address the issues that tend to affect women more, such as family/work life balance. Women leaders can take these issues out of the shadows and address them more openly. By forcing women to hide the issues that so impact their lives, new perspectives and solutions to the problems are left unexplored.
8. *Shaping the criteria.* If the processes or language of research are currently masculine in nature, that should not stop us from changing the criteria and making them more neutral or even feminine. Behavioural work, such as the “emotional labour” that supports workers' well-being [Cigantesco, Picardi, Chiaia, Balbi and Morosini, 2003; Raines, 2000], should be valued just as well as other types of research.

Investigations focused on the plight of female IS academics attempting to scale the ivory tower [Cyr and Reich, 1996; Gallivan and Benbunan-Fich, 2006] show some visible, as well as hidden, obstacles women encounter while manoeuvring through their careers. More guidance and support is needed to help IS women academics deal with these difficulties. This is especially true if society expects them to act as role models for younger women who are deciding whether to pursue a career in the IT field.

VI. CONCLUSION

Just as men are willing to ask for what they need, women need to learn to negotiate for necessary resources [Babcock and Laschever, 2007]. As men do, women could and should accept “no” as a temporary setback, rather than a permanently shut door to an opportunity. Getting to “yes” may be a simple task of reframing the question or re-evaluating the way the question is asked. This behaviour may not be a comfortable one for women at first, but with practice comes greater ease and success. The resilience learned from hearing “no” and moving forward is an essential tool for career success [Evans, 2000].

It is also very important that women seek positions of leadership in their universities, associations, and communities. Besides the typical reasons for obtaining the rank of full professor—increased prestige, power, salary, credentials, and energy—it is important for women to attain positions that allow them to change the old status quo for the better and demonstrate to other (less senior) women that they can do it as well. Women need role models who can say, *I did it, so can you, and here is how.*

In fact, having a role model who had attained full professorship was found to encourage other women to pursue full professorship [Pruitt et al., 2010]. Overall, supportive feedback from department heads, deans, and colleagues encourages women to pursue and advance their career. Women often undervalue their work, and it takes others reflecting their achievements to them for them to see their true value.

Additionally, women need to learn to negotiate at home, where they have for so long taken on the brunt of the childcare and house work. Asking for help is the only way to get the conversation going and reduce the stress placed on women both at home and work. A solution outside of simply redistributing the work onto a partner may arise, such as getting a cleaning service to clean house once a week, thus relieving both partners from the chore.

It's also helpful to consider the dialogue that took place in the panel within a wider frame of feminist perspectives on how women have been perceived in organizations over the past thirty years. Lewis and Simpson [2012] suggest that the way women have been historically regarded in organizations is as a group disadvantaged by outmoded prejudices and customs, and with appropriate policies, these prejudices can be "managed out." This is characterized as a "liberal feminist" viewpoint. By contrast, they propose a poststructuralist view, which regards gender relations as deeply embedded in organizational contexts, and a reality that simply cannot be "managed out" by simply having more women in the organization [Lewis and Simpson, 2012]. There are issues of power, which affect women's progress, embedded within certain discourses, both official and unofficial, where masculinity is seen as a source of cultural priority and relative advantage within organizational structures, processes, and procedures [Lewis and Simpson, 2012].

In the thirty-plus years covered by the ICIS Women's Breakfast, the position of IS women has changed for the better, but women's numbers are still low in our discipline at the upper ranks. Worse, this level of participation is either static or falling, depending on which statistics are examined. From a research perspective, we would suggest that greater attention needs to be paid to the working of power in organizations, and investigating why, at the senior level in IS in particular, and in organizations in general, the progress of women has stalled. An examination of discourses about women in organizations, both in theory and practice, and how those discourses maintain a status quo is urgently required if our community is to leverage all its available talent.

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ABOUT THE AUTHORS

Eleanor T. Loiacono is an Associate Professor of Information Technology at Worcester Polytechnic Institute. She is the current co-coordinator of the IS Women's Network. Her research has been published in journals, such as the *Communications of the Association for Information Systems*, *Communications of the ACM*, *Computer IEEE*, and *International Journal of Electronic Commerce*. Her research interests include IT Accessibility, Website Quality, Human-Computer Interaction, and Affect in IS. She is co-coordinator of the ICIS Women's Breakfast.

Cathy Urquhart is Head of Research, and Chair of Digital and Sustainable and Ethical Enterprise, at Manchester Metropolitan University, UK. She is a Senior Editor Emeritus for *MIS Quarterly* and an Associate Editor for *Information Technology and Development*. She is author of the book *Grounded Theory for Qualitative Research*, published by Sage in 2012. Her work also appears in such journals as the *European Journal of Information Systems*, *Journal of Information Technology Theory and Application*, and *Information Systems Journal*. Her major research interests are Green IT, IT in developing countries, and social media. She is co-coordinator of the ICIS Women's Breakfast.

Cynthia Beath is a Professor Emerita of Information Systems at the University of Texas at Austin. She received her MBA and PhD degrees from UCLA. Prior to her academic career, Cynthia worked in private industry in several information systems development and consulting positions. Her research focuses on the joint management of information technology assets by IT, its vendors, and its clients. Her research has been published in leading information systems research journals and has been supported by grants from the National Science Foundation, SIM International, IBM, and others. She currently serves as VP of Meetings and Conferences for AIS. An advocate for her academic community, she has served in senior editorial roles for the field's major journals, chaired the OCIS division of the Academy of Management, instigated several junior faculty workshops, and helped to institutionalize the Women's Breakfast at ICIS.

Annemieke Craig is an Associate Professor in the School of Information Systems at Deakin University in Australia. Annemieke has developed, taught, and reviewed a wide range of IS subjects at both the undergraduate and postgraduate levels. Her research interests include the area of online education, the use of technology in

teaching and learning, equity, and student engagement. Annemieke also researches in the fields of access and equity with particular emphasis on trying to improve the profile of women in computing and to encourage more female students to consider computing courses. She has been the recipient of numerous research grants including an Australian Research Council (ARC) Grant to investigate programs to encourage secondary school girls to consider IT courses and careers.

Jason Thatcher is Director of the Social Media Listening Center and an Associate Professor in the Department of Management at Clemson University. His work appears in *Communications of the Association for Information Systems*, *MIS Quarterly*, *Journal of Management Information Systems*, *IEEE Transactions on Engineering Management*, *Organizational Behavior and Human Decision Processes*, and the *Journal of Applied Psychology*. He is currently the Vice President of Membership of AIS.

Douglas R. Vogel is Professor of Information Systems and is an Association for Information Systems (AIS) Fellow as well as AIS President. He received his PhD in Information Systems from the University of Minnesota in 1986. Professor Vogel has published widely and directed extensive research on group support systems, knowledge management, and technology support for education. He has been recognized as the most cited IS author in Asia-Pacific. He is currently engaged in introducing mobile devices and virtual world support for collaborative applications in educational systems.

Ilze Zigurs is Professor of Information Systems and Quantitative Analysis in the College of Information Science and Technology at the University of Nebraska at Omaha. She holds the Mutual of Omaha Distinguished Chair of Information Science and Technology. In 2007, she was named a Fellow of the Association for Information Systems. Ilze's editorial work includes service as Editor-in-Chief of *Communications of the Association for Information Systems*, Editor-in-Chief of *e-Service Journal*, and Senior and Associate Editor at *MIS Quarterly*. Her research examines design, implementation, and use of collaboration technologies, particularly in virtual teams and projects. Ilze's work appears in *MIS Quarterly*, *Journal of the Association for Information Systems*, *Journal of Management Information Systems*, *International Journal of e-Collaboration*, and *Group Decision and Negotiation*, among others.



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