

## Chapter 4

# Popular Theories

### ABSTRACT

*Chapter 4 looks at popular theories on the dearth of women in IT. It concludes that the leaky pipeline, critical mass, and other historical theories do not apply in the new social era and ought to be cast aside. That is not to say they have had no value, nor that superseding them implies there are no cultural, social, or structural contexts that affect career choice. It simply implies that it is time for a new approach.*

*[We see that] science is eminently perfectible, and that each theory has constantly to give way to a fresh one. – Jules Verne, A Journey to the Centre of the Earth*

Without a doubt the topic of attraction, promotion and retention of females in technology has attracted voluminous research over the past decades and continues to do so. von Hellens, Trauth, and Fisher (2012) note “Accompanying the increase in volume and visibility of gender and ICT research has come a broadening of the methods used in the conduct of this research. While the 1990s introduced the use of interpretive epistemology for the conduct of gender and ICT research, the 2000s have witnessed the introduction of critical theory into gender and ICT research.”

Essentialist Theory, Social Construction Theory, Individual Differences Theory, Theory of Reasoned Action and their resulting Gender Modeling, Leaky Pipeline, Life Course Approach and Critical Mass Models have all been used over time to frame researchers’ discussions regarding the lack

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and decline of females in technology studies and careers. In Chapter Three: *Transitioning To The Future*, we discussed the importance in the #SocialIT era of greater engagement between researchers and the wider community. Perhaps we can express the problem in #SocialEra terms as these topics are not “trending on Twitter” and as such are almost invisible to that community.

More specifically, the frequently changing technology landscape makes it difficult for a traditionally developed and distributed research framework to keep up with the rate of change and incorporate the current influencing factors. Technology and industry game changers are introduced that impact the relevancy of a modeled theory. We are in an era where “trending” and following the latest technology craze is fast becoming not only the norm, but the main source of information for society.

There is some discussion in the literature about a disconnect between researchers, their publications and the mainstream public. Of particular interest here is the disconnect between the frameworks and models proposed in the literature and the people who design and implement intervention programs.

The following comments from personal interviews reflect this disconnect:

1. “My feeling is that there could and should be much closer relationships amongst all people involved, and engender a spirit of co-operation. Ideas should be shared and people assisted and encouraged to run/adopt programs. There are too many individual groups running programs in isolation from other groups but sharing the same aims. This leads to duplication of effort (i.e. wasted time and money), replication, and competition for funding which is in short supply. I haven’t seen strong on-going relationships with researchers so their valuable information is not leveraged when new initiatives are developed.” – Madeleine Sanders; co-founder of Women are IT (Victoria, South Australia, Western Australia) founding board member Australian Women in IT, Science and Engineering (AWISE) (personal communication, August 12, 2013).
2. “I have found Researchers are statistically driven which is necessary for the activists and advocates however there has often been a dis-connect because the advocates and activist are normally at the Coal Face and have a more complete picture.” – Barbara Tobin; industry participant, ex President of Women in Technology (WiT) (Qld), ex Chair of Australian Women in IT, Science and Engineering (AWISE) (personal communication, August 5, 2013).

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