The Gender Imbalance in the IT Field: What do we know? How do we think about it?

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Agenda

• My standpoint
• What we know about the gender imbalance
  – Common thoughts
  – Not so common thoughts
• How we think about the gender imbalance
  – Common mental models to understand the data
  – My theorizing of the data
Standpoint

• Human capital in the information economy
  – IT skills and knowledge
  – IT work and economic development
  – Underrepresented groups in the information economy
Standpoint

• Career enacted on the margins
  – Gender
  – Research topics
  – Research methods
Standpoint

• Researcher
• Writer
• Teacher
• Administrator
The IT Gender Imbalance: What we know

• Women are not underrepresented in the population, universities, workforce

• Women are paid less than men

• Evidence of a gender backlash in society
The IT Gender Imbalance: 
What we know

• Gender imbalance has changed in some other historically male-dominated fields
• Women are not proportional entrants into the IT workforce
• Women are disproportionately leaving the IT workforce
• Women are not proportionally represented in IT power structure
Common Explanations: Recruitment

• Low technical self-efficacy

• Absence of role models

• Gender role conflict

• Gender differences in technological ability and apparent interest
Common Explanations: Retention

- Career breaks during parenthood years
- Work-life balance and work commitment
Other Explanations: Recruitment

• Educational experiences

• Educational climate

• Support from significant others

• Competition from more welcoming fields
Other Explanations: Retention

• Hostile workplace climate

• Exclusion from sponsors

• Greater opportunities in more welcoming fields
The IT Gender Imbalance: How we think about it

• Common theories
  – Gender essentialism
  – Gender constructivism

• Assumptions
  – Gender binary
  – Focus of interest is between-gender differences
Individual Differences Theory of Gender & IT

• Theoretical position
  – Some factors are bio-psychological (but not based on biological sex)
  – Some factors are environmental (but vary by environment)
  – Some factors and individual

• Focus of interest: within-gender, not between-gender variation
Individual Differences Theory of Gender & IT

Participation of women in IT explained by:

• Varied individual *exposure to* institutional & societal gendering

• Varied individual *experience of* institutional & societal gendering

• Varied individual *response to* institutional & societal gendering
Individual Differences Theory of Gender & IT

• Individual Identity

  – Demographic characteristics
    • Gender identity
    • Ethnicity
    • Age
    • Parental status
    • Religion

  – Type of IT Work
Individual Differences Theory of Gender & IT

• Individual Influences
  – Personal characteristics
    • Personality
    • Interests
    • Abilities
  – Personal influences
    • Mentors
    • Role models
    • Significant others
    • Significant life experiences
Individual Differences Theory of Gender & IT

• Environmental Influences
  – Culture
    • Position of women in society
    • Attitudes about women working outside the home
    • Attitudes about women work in technological fields

  – Policy
    • Affecting gender
    • Specifically about gender equality
Individual Differences Theory of Gender & IT

• Environmental Influences
  • Economy
    – Overall economic health
    – Size of IT economy

• Infrastructure
  – Child care availability
  – Store hours
  – Transportation
Individual Differences Theory of Gender & IT

• Environmental Influences
  • Geography
    – Location
    – Population
    – History
Gender & IT Research Agenda

• Field Studies of Women in IT (200)
  – Domestic:
    • MA
    • NC
    • PA
  – International:
    • Australia
    • New Zealand
    • Ireland
Gender & IT Research Agenda

• Gender Intersectionality Projects
  – Gender, ethnicity, class & IT career choice (5000+)
    • Predominately White Institutions
    • Historically Black Colleges & Universities
    • Hispanic Serving Institutions
  
  – Gender, military, disability & IT career choice
Gender & IT Research Agenda

• Graduate Students
  – Dr. Jeria Quesenberry, Carnegie Mellon University
    • Career values of women in IT field
  – Dr. Allison Morgan, Howard University
    • Race/gender influence on information seeking behavior
  – Curtis Cain, PSU Ph.D. Candidate, NSF Fellow
    • Black males in STEM education
  – Kayla Booth, PSU Ph.D. Student
    • Gender minorities & IT use
Gender & IT Research Agenda

• Communicating Research to a Public Audience
  – iDream
  – www.iDreamtheplay.com
Examples & Interventions

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Gender & IT Research Findings

• Environmental factors
  – Culture & economic influences
  – Cross-cultural influences
  – Gender stereotypes about IT skills and knowledge

• Individual identity factors
  – Gender, race, class
  – Motherhood
  – Career decisions

• Organizationalal influences
  – Social networks
  – Organizational support & climate
References


