Investigating Information Systems research through the lens of feminist epistemology: The case of MIS Quarterly

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Outline

1. Why feminist epistemology?
2. The four dimensions of feminist epistemology
3. Feminist epistemology in IS research: the case of MIS Quarterly
4. Results
5. Conclusion
1. Why feminist epistemology?

- **Science**
  - Knowledge produced by scientific disciplines
  - Set of principles and techniques ensuring the validity of research outcomes
  - Social institution: people, norms, decisions-making processes (funding, recruitment etc.)

- **Critical view on science from a gender equality perspective**
  - Practices discriminating women: peer-review, funding, glass-ceiling (*ETAN report, 2000*), exclusion (Grace Hopper and 1968 NATO Conference on software engineering; Marie Curie and *French Academy of sciences*)
  - Methodological biases: researchers are socially and historically embedded (prejudices, value judgments, interests)

production of “androcentric” knowledge, particularly in human and social sciences (e.g. female initiation rites, role of women in History)
Method, methodology, epistemology (S.Harding, 1987)

- **Method**: technique for gathering evidence
  - No feminist research method, but a feminist approach to research (e.g. choice of interviewees)

- **Methodology**: theory of how research should proceed
  - Marxist, constructionist, structurationist, positivist methodology etc.
  - Feminist use of methodologies: includes a gender perspective

- **Epistemology**: theory of knowledge production process
  - Who can be a “knower”? How do beliefs become knowledge? What is considered worthy of interest?
  - Feminist approach: questioning processes and options to legitimate knowledge

« Feminist epistemology » in this presentation

- All **three aspects** (method, methodology, and epistemology) are generally present in all research (more or less implicitly)
  - However do not always refer to Harding's definition of terms
  - Sometimes what Harding calls “methodology” is referred to as ‘epistemology’ or “theoretical foundations” (e.g. Denison, 1996),
  - Sometimes all the methodological aspects of research design are referred to as “epistemology”

- We use the expression « **feminist epistemology** » to refer to Harding’s three methodological aspects
  - Considering gender when using a method;
  - Including gender when defining an object of study;
  - Being aware of gendered aspects in the knowledge production processes

2. The four dimensions of feminist epistemology

a) Employing the “gender” concept

b) Unveiling gender aspects

c) Recognizing knowledge as “situated”

d) Including an emancipatory objective
a) Employing the “gender” concept

- Gender: different meanings
  - Biological
  - Assignment to a social category

- No causal link between biology and gender categories
  - “one is not born but, rather, becomes a woman” (S. de Beauvoir)
  - “doing gender” (West & Zimmerman, Butler etc.)

- Analysing social arrangements based on gender categories
  - gender division of labor
Gender as a tool for research

- Rejecting essentialist beliefs
  - Characteristics associated with men and women (cognitive, psychological, behavioral) are socially constructed (norms, upbringing, stereotypes etc.)
  - Rejecting the so-called « eternal feminine »

- Relational perspective
  - Social co-construction of masculinity and femininity
  - These are not separate spheres (no « real man » or « real woman »)

- Power perspective
  - Social relationships between women and men often include inequality interactions
b) Unveiling gender aspects

- **Object of study**
  - Giving women a voice
  - Relationships of domination

- **Historical construction of common sense notions**
  - « feminine culture »

- **Gaining legitimacy as a female expert in IS-IT field**
  - « Being perceived as an expert is then more crucial than being one »
    - (Robertson et al., 2001)
c) Recognizing knowledge as “situated”

- **Critical view on scientific objectivity**
  - Production of knowledge is not impermeable to the researcher’s social position
  - Partial views
  - Self-reflexivity

- **Understanding the structuring power of metaphors**
  - Way of thinking that provides an understanding of reality using elements found in another sphere
  - Relies on common sense, obvious and unquestioned knowledge
  - Can have insidious effect (e.g. “violation”, “abort”, “kill”, “chaining”, “execute”, “divide-and-conquer”)

d) Including an emancipatory objective

- Different types of interests guiding human inquiry (Habermas, 1970)
  - technical (controlling the environment, searching for general laws)
  - practical (understanding reality, searching for meaning)
  - emancipatory (increasing human autonomy, searching for human progress)

- Link with Critical Management Studies (CMS)
  - To advance practices towards increased social justice

3. Feminist epistemology in IS research: the case of MIS Quarterly

- Research question

  - *Does information system (IS) research contribute to reducing gender imbalance?*

  - *What is the impact of IS research on gender & IT representations and beliefs?*
Research design

- Applying the 4 dimensions of feminist epistemology
  - Analysis of all articles (mentioning “gender”) in leading IS journal *MIS Quarterly*

- Corpus
  - 1,727 published articles
  - 180 articles using term “gender”

- Analysis
  - Review from feminist epistemology perspective
  - Deeper analysis of two groups of selected articles that make essentialist assumptions
## 4. Results

### Categorisation of articles

<table>
<thead>
<tr>
<th>Category depending on the use of « gender »</th>
<th>Articles</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (demographic characteristic used for checking gender balance in samples)</td>
<td>54</td>
<td>30%</td>
</tr>
<tr>
<td>B (control variable)</td>
<td>101</td>
<td>56%</td>
</tr>
<tr>
<td><strong>B1</strong>: effect on results</td>
<td>26</td>
<td>31%</td>
</tr>
<tr>
<td><strong>B2</strong>: no impact on results</td>
<td>58</td>
<td>69%</td>
</tr>
<tr>
<td><strong>B3</strong>: suggestion to include gender in further research</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>C (other usages of gender in qualitative research)</td>
<td>25</td>
<td>14%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>180</td>
<td>100%</td>
</tr>
</tbody>
</table>
How is gender taken into account?

■ Under theorization
  • Most research in MIS Quarterly does not employ a gender theory (sex variable)
  • Many of the comments that advocate using a gender variable express a stereotyped view of the gender and technology relation

■ If no evidence of a gender effect
  • Differentialist comments are not discussed in the light of contradicting results
  • Taken as a non-result
  • Almost never cited in further research

■ Looking for differences between men and women
  • E.g. V. Venkatesh (Brown & Venkatesh 2004 2005) is presented as an expert in « gender differences in technology adoption and use »
Visibility challenges

■ Research on gender & IT
  • Ignored (apart from a few exceptions)
  • E.Trauth, member of MIS Quarterly Editorial Board, never cited (except by Carter&Grover, 2015 and by herself)
  • A limited number of researches studies providing evidence of a gender effect over-cited their limits or biases never mentioned

■ E.g. Gefen&Straub (1997)
  • Range of stereotyped characteristics
    men: independent, seeking respect, competitive;
    women: network-oriented, focused on creating intimacy, cooperative
  • Research on stereotypes (normative shared beliefs) is used as if they were actual characteristics

■ Work environment and work organisation not taken into account
  • Personal factors explain behavior

■ Power issues
  CIO, open source software communities
Essentialist trend

- « Evolutionary psychology » theory (Kock 2009)
  - Puts forward biological reasons to explain behavior toward technology
  - No scientific evidence
  - Questions the principle of male-female equality
    - Men would be suited for complex and innovative activities
    - Women could execute mechanical and repetitive tasks

- MRI (magnetic resonance imaging) (Riedl & Hubert & Kenning 2010)
  - Capturing the brain activity of 10 female and 10 male participants to study buying decision on eBay
  - Authors rely on common sense to explain results
    - Women enjoy the process of buying (they have a « shopping feeling »)
    - According to a « commonly accepted view », women process more information than men
Risk: Performative effect

- Strengthening gender inequality (concerning gender & IT relation)
  - Repeated stereotyped assumptions
  - Assumptions with little scientific evidence
  - Uncritically relying on neuro-sciences can lead some IS research towards biological determinism

- No concern for male-female imbalance
  - No research in MIS Q on processes that exclude women from IT jobs
  - Few research aiming to changing the situation
Conclusion: contributions to IS research

- **Adopting a gender concept**
  - View gender as a relational concept
  - Taking into account gender relations can lead to questioning social norms and power relations e.g.
    - in ICT projects teams, between professionals and users, etc.
    - In Information systems
    - In technology adoption

- **Including gender in IS management research**
  - IS governance (decision processes, CIO profile etc.)
  - Work organisation and human interactions in IS/IT projects

- **Promoting reflexivity**
  - Question implicit assumptions about men and women
  - Investigate if and how being a man or a woman impacts data collection
Thank you!

Discussion