Feminist Geographic Information Sciences (FGIS)

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VirginiaTech
Invent the Future

SANREM CRSP
Sustainable Agriculture and Natural Resource Management
Collaborative Research Support Program

USAID
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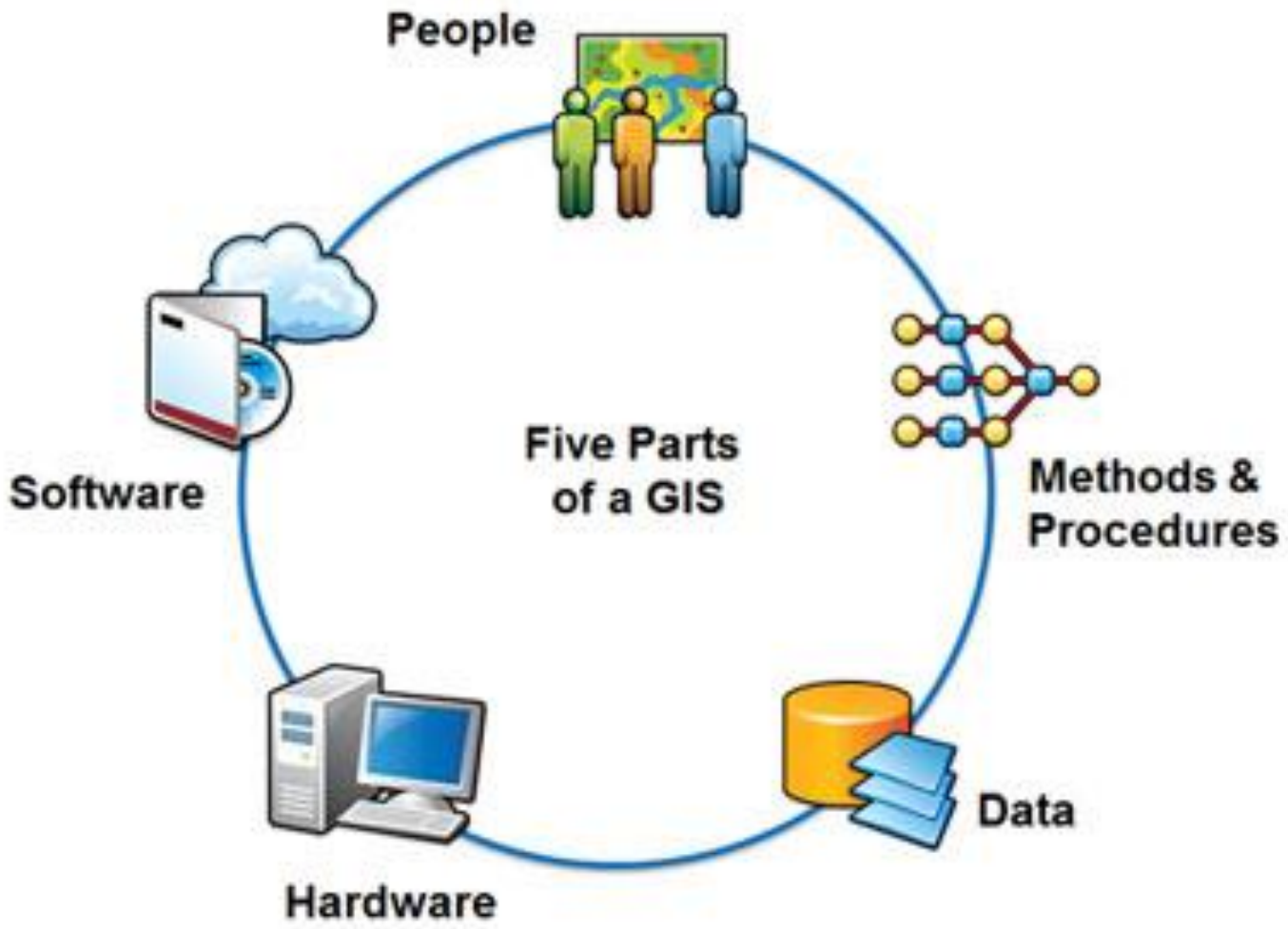
For those not familiar with GIS…



http://www.polkcitymaps.org/GIS-Day.html

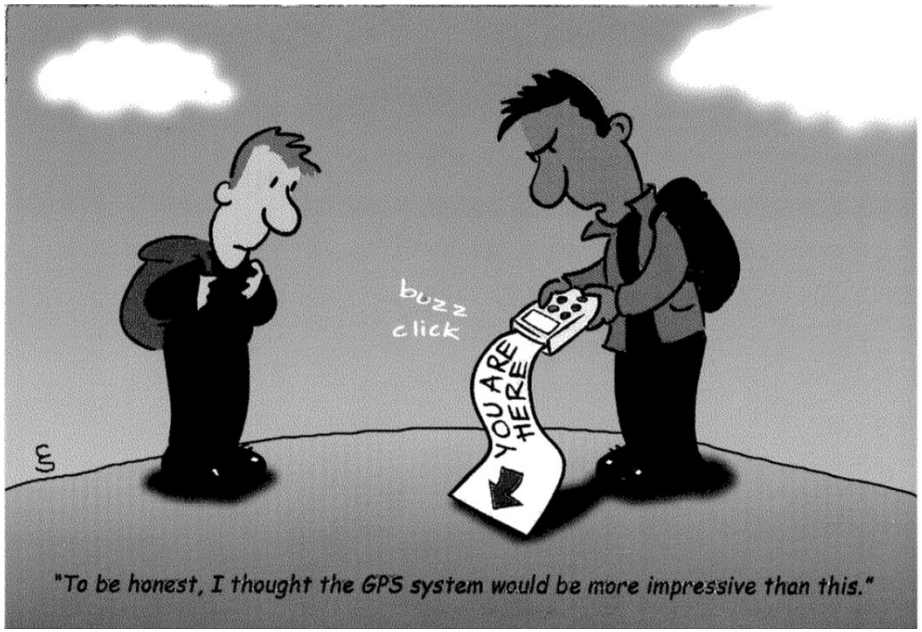
GIS in Development

- GIS allows researchers to share ideas on how to meet resource needs, plan land use, and protect the environment to improve lives and support the survival of future generations.

- Common research areas for GIS in development:
  - Land conservation
  - Agricultural development
  - Health and nutrition
  - Economic development

GIS and Theoretical Developments

- **Conventional GIS**: space= precise, locational measurements
- **Critical Geography**: space=relation of areas
- **Feminist GIS**: space=location + social processes



eprints.ncrm.ac.uk/1488/1/ESRC%20RMF.ppt

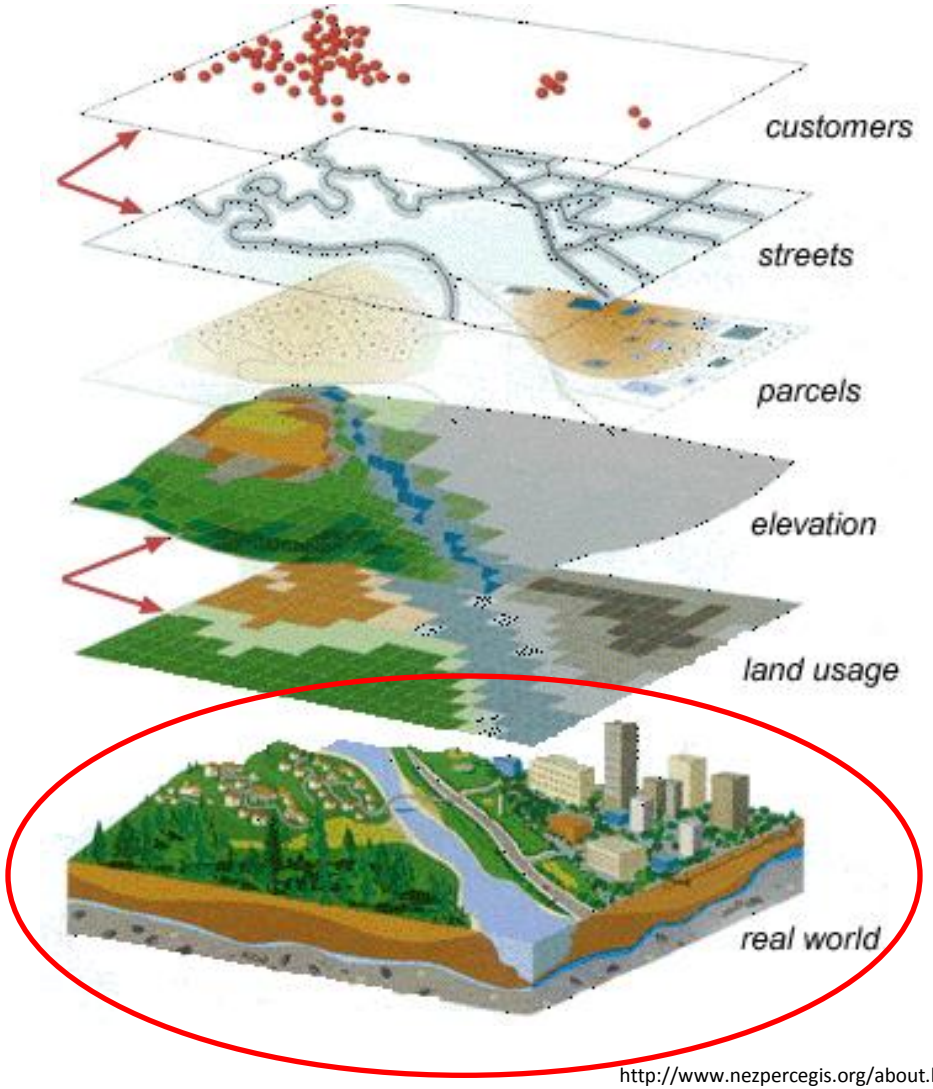
Feminism and GIS: An unlikely couple

- Feminism in GIS concerns equality, marginalization, distribution of wealth, social justice, allocation of power.
- Geographic knowledge is partial & situated.

http://www.southsouth.info/profiles/blogs/advocacy-and-knowledge-management-empowering-building-capacity-of

Feminism and GIS: An unlikely couple

- GIS to study spatial problems
  that involve women and
  marginalized communities
- GIS visualization to
  integrate qualitative material
  to express social relations
  in different ways
- GIS maps and public policy, redistribution of social and political power



http://www.nezpercegis.org/about.htm

Feminism and GIS: An unlikely couple

- Way to investigate data in a more qualitative manner- Qualitative GIS
- Space-time relations of women-activity patterns over time and space (Kwan 2002).

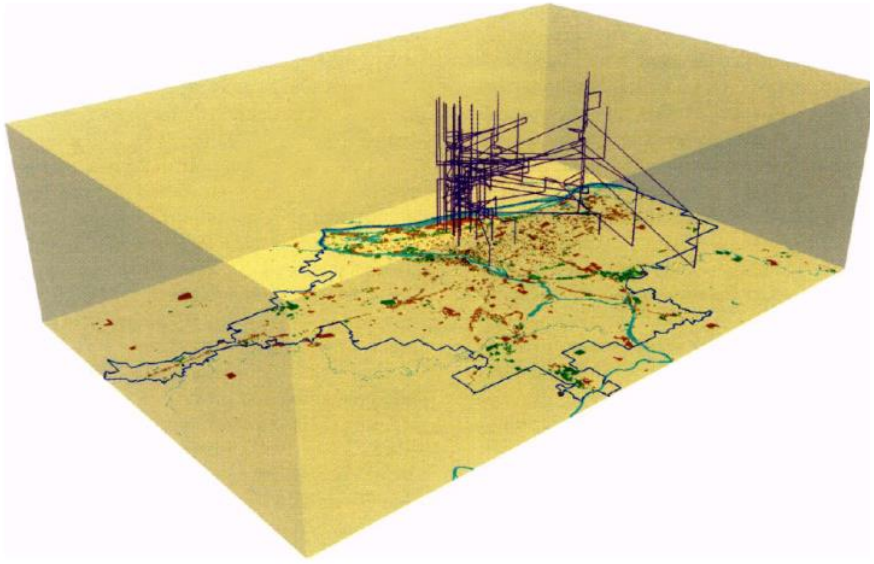


Figure 1. The space-time paths of a sample of African-American women in Portland, Oregon.

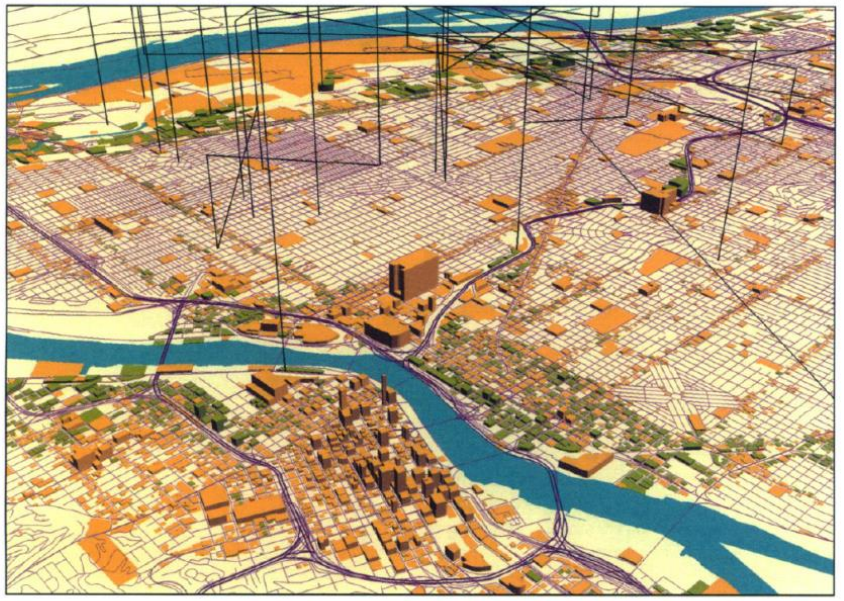
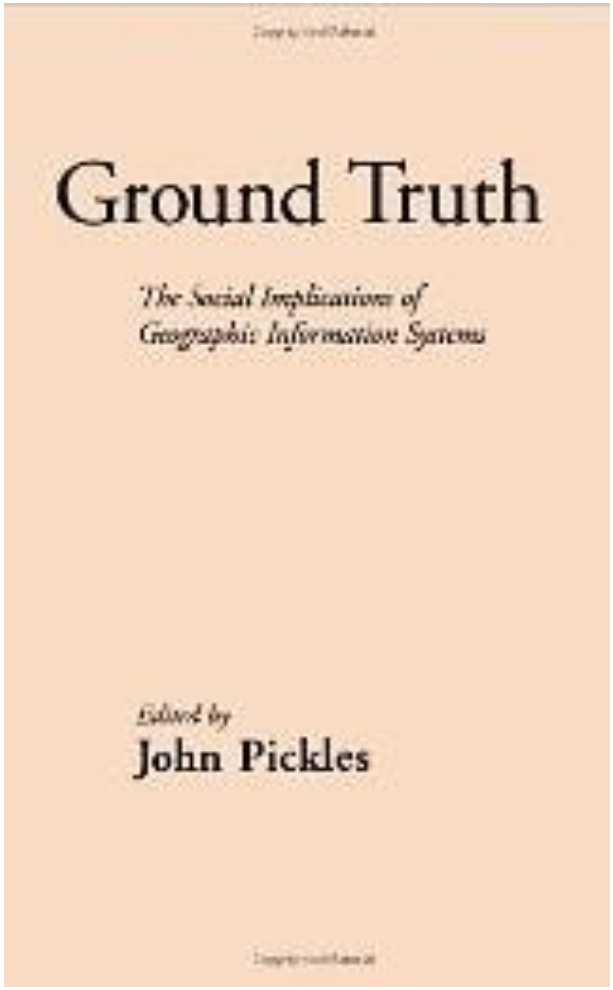


Figure 2. A detailed view of an area close to downtown Portland, Oregon.

Critical GIS

- Began in the 1990's
- Concerns of social & political implications
- Assumed characteristics:
  - Positivist
  - Fixed
  - Empirical
  - Oppressive
  - Strictly quantitative
  - Top down approach
  - Masculinist



Critical GIS

- God's Eye View
  from nowhere
  (Haraway 1991)

- Unable to show
  "space in terms of relations, networks, connections, emotions, and other nonstandard patterns or movements" (Pavlovskaya 2007)

http://www.creativereview.co.uk/cr-blog/2007/december/the-bible-according-to-google-earth

Critical GIS

- Technological limitations
  - Tools, functions, imagery do not visualize social spaces (e.g. gendered space)
- Disempowerment
  - Digital divide
    - Women are not mapped
    - Women are not mapping
- Leads to Feminist GIS (FGIS)

http://homepage.usask.ca/~mmw819/Geography.html

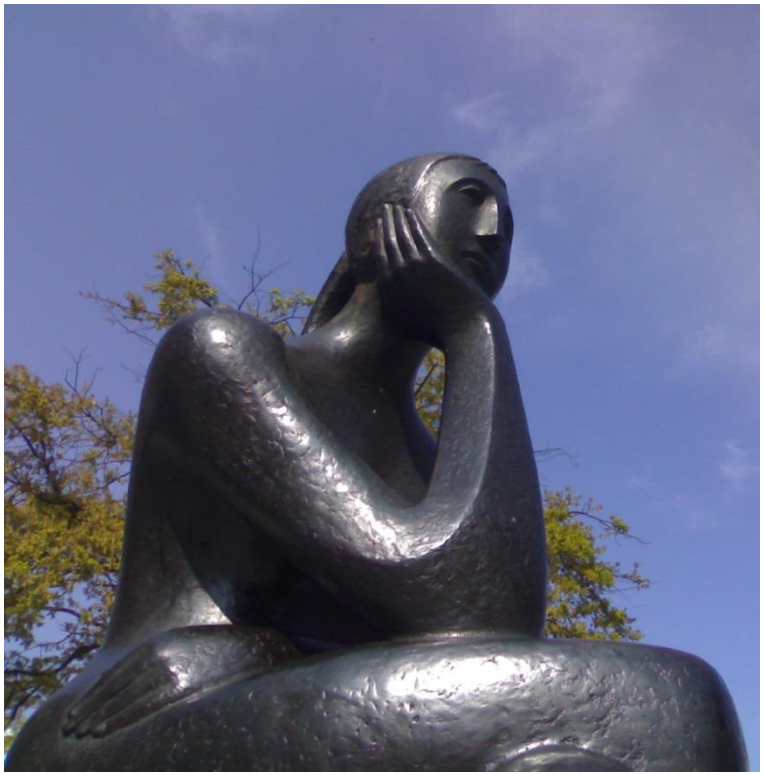
Challenges in FGIS

- Re-visualization of maps as subjective and situated
- Re-visualize visualization as method for analysis rather than conclusions
- Favor partiality
- Redefine the relationship between the "mappers" and the "mapped"
- Deconstruct the assumed power of GIS

(Pavlovskaya 2006)

Reflexivity

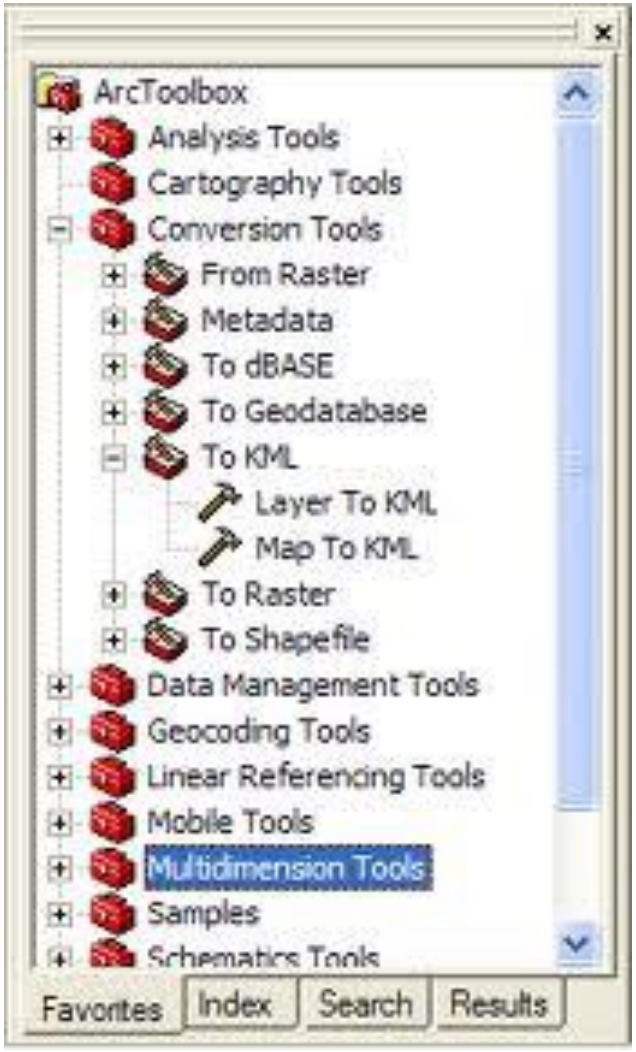
- “Feminization” of GIS
- One main question emerges: Is GIS inherently masculinist?
- Masculinism in methodology and knowledge production as defined by Schuurman (2000) and Kwan (2002): being positivist/empirical science or quantitative methods



How masculinist is GIS really?

- Several conceptual frameworks in GIS
  - Geography, remote sensing, census admin, etc.
- Tools/functions are not necessarily scientific or positivist

(Pavlovskaya 2006)

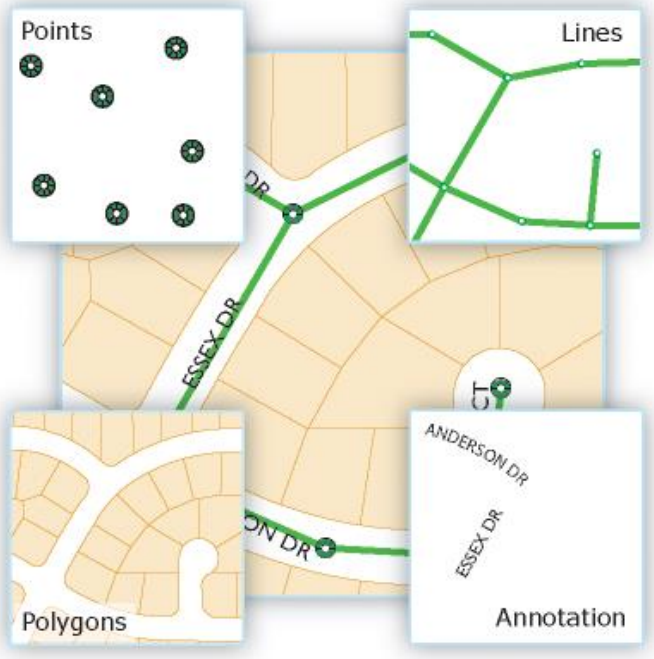


How masculinist is GIS really?

- Spatial analysis:
  - "Overall, spatial analysis in GIS today is largely qualitative, visual, and intuitive…"
  - Requires cognitive ability
  - Conclusions are not always quantitative
  - Cannot produce "objective" quantitative results

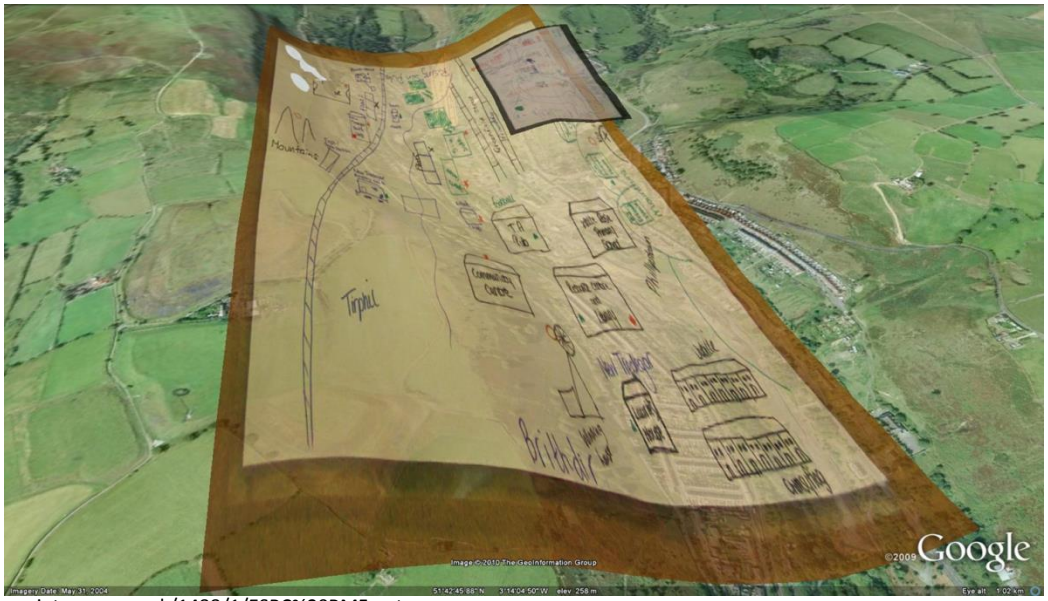
(Pavlovskaya 2006)

How masculine is GIS really?



http://webhelp.esri.com/arcgisserver/9.3/java/index.htm#geodatabases/feature_class_basics.htm

- Representation:
  - Limitations
  - Advances



eprints.ncrm.ac.uk/1488/1/ESRC%20RMF.ppt

How masculine is GIS really?

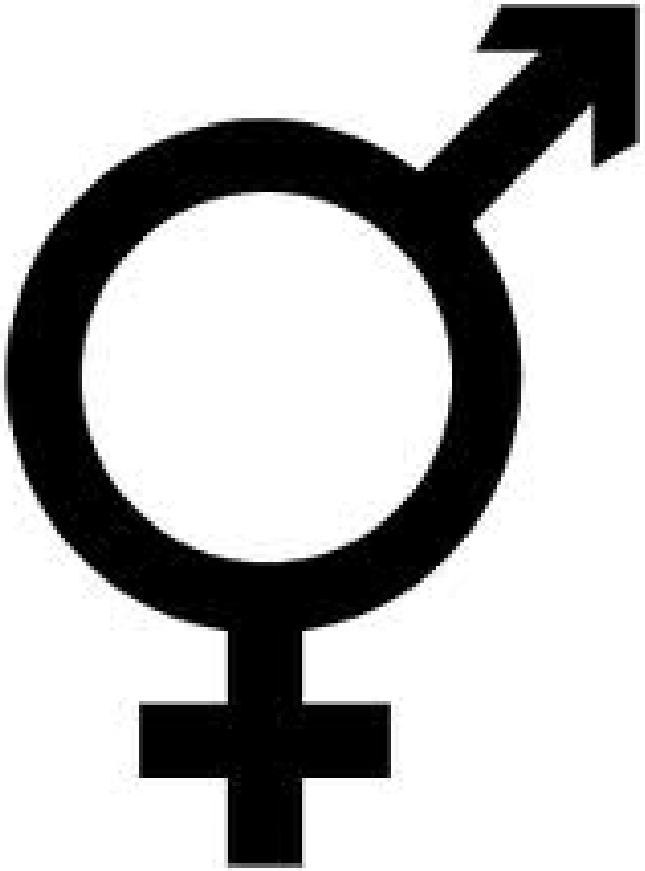
- Visualization:
  - Requires digital data models

    and intuitive, cognitive abilities
  - Analytical tool for understanding
  - Arouses our emotions
  - Concerned with pattern

    recognition

Can it be both?

- Need to think of GIS as a masculinist and feminist continuum.
  -rational and non-rational
  -easy and complicated
  -biased and precise
  -theoretical and analytical
  -quantitative and qualitative



Qualitative GIS

- Mixed-methods approach
  - GIS & participatory methods
- Supports grounded knowledge
- "By incorporating women and participatory methods into GIS, we can show and represent the excluded interests, priorities, and needs with the environment and associate those with specific locations and areas. This allows researchers and locals to make progress towards a better understanding of social and environmental issues as well as representing diverse perceptions of space and place."

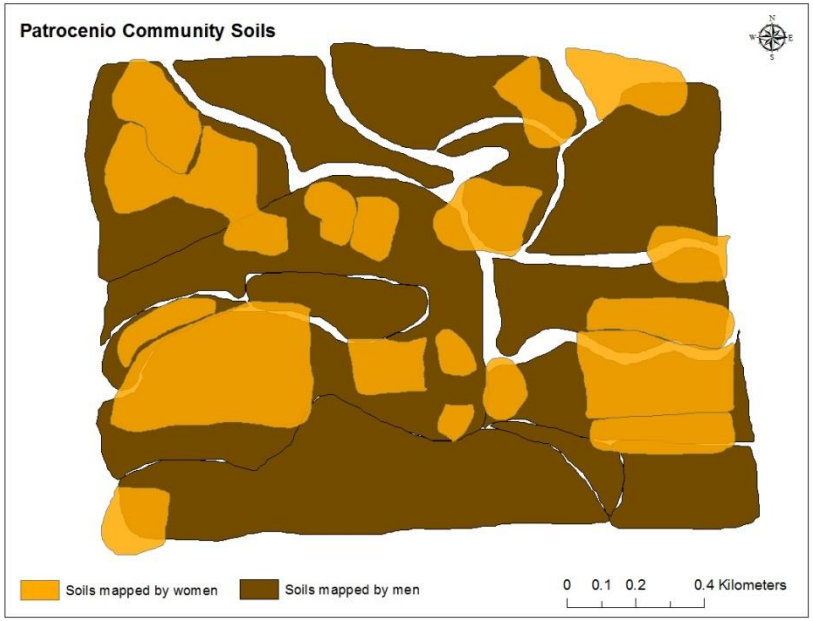
(Pavlovskaya 2006)

QGIS & Gender

- Use GIS to map:
  - Gendered identities and knowledges
  - Geographies of everyday life
  - Women's activism
- Examples:
  - Kwan (2002): daily paths of women
  - Kwan (2002b): experiences of Muslim women
  - Cope & Elwood (2009): Gendered territories
  - Harman Parks et al. (2014): Gendered soil knowledge

QGIS, Gender, and Development

- FGIS & QGIS emphasize the incorporation of gendered data into GIS and GIS research.
- Incorporating GIS into gender and development research can show gendered spaces, access to resources, roles, and knowledges (Harman Parks et al. 2014).



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