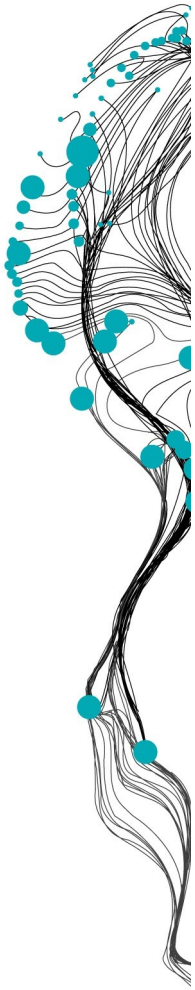
UNIVERSITY OF TWENTE.

Scientific ethics etc.
CHANGES workshop
16-Jan-2012 CE

D G Rossiter

www.itc.nl/personal/rossiter/



Topics

- Scientific ethics
- Scientific attitude
- professional leadership
- scientist's role in civil society
- research collaboration
- cultural sensitivities and gender

Scientific ethics

- see presentation “MSc Research Skills, Topic: Ethics & professionalism in science”
- discussion

Scientific attitude

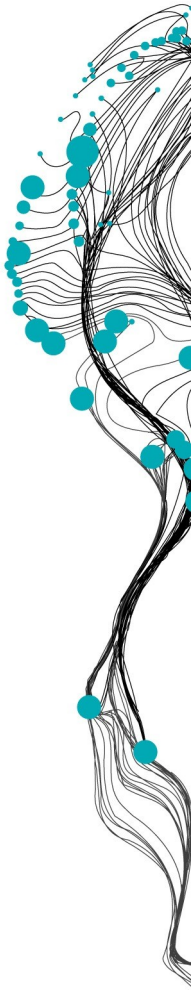
- Towards the natural/built/social world
- Towards problem-solving
- A manner of working / investigating / knowing
- Note: the scientist is also a human and embedded in a culture / has a history / has (often unconscious) biases
  - scientists should try to make these explicit to themselves
  - and correct for them (examine them critically)

Professional leadership

- The scientist as a responsible member of a profession
- Responsibilities to society / profession

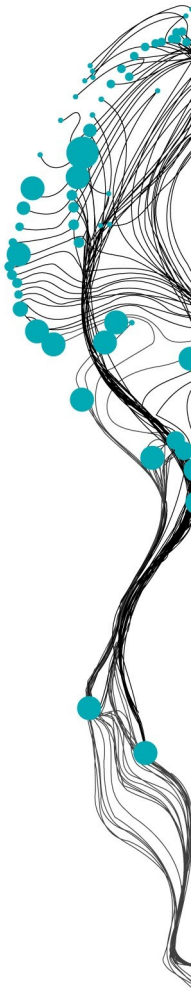
Scientist's role in civil society

- Presumed to have special expertise in knowledge field
- Presumed to have a “scientific” approach to problem solving
- Two hats: scientist and (ordinary) citizen
- A PhD does not make a scientist an expert on everything
  - e.g. PhD 9/11 deniers, William Shockley (Nobel prize 1956 for inventing transistor) on “race” and IQ
- But the citizen-scientist has citizen-values / world view; these influence choice of research topic and expected influence on society



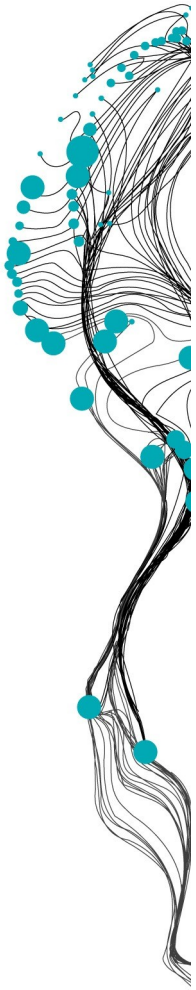
Choice of research topic

- Who decides?
- Who benefits?
- How much should scientist's own values determine?
- Where is the line between independent researcher / mercenary soldier / prostitute?



Research collaboration

- Look for win-win
- Reputation as collaborator
- Establish and follow clear guidelines (e.g., authorship and other credit)
- Funding mechanisms must facilitate
- Understand others' expertise enough to see how it all fits in
  - can't be expert in everything but can follow others' reasoning

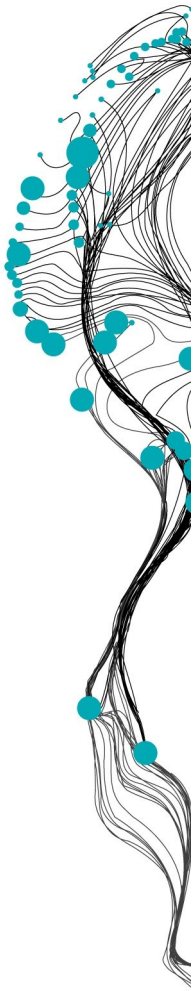


Cultural sensitivities

- Between scientific collaborators
  - scientific culture is more universal than general culture
  - still “residuals” of general culture
  - there are variants of scientific culture, not necessarily due general culture
    - hierarchy, deference, initiative
- Between scientists and government officials / funders / project leaders
- With research subjects

Gender

- Within the scientific community
  - equal opportunity or affirmative action?
  - how much to account for gender-specific issues?
- Between scientists and government officials / funders / project leaders
  - who is the PI? respect
  - gender as a research topic
- Between scientists and research subjects
- Cultural attitudes towards gender roles
  - within science (e.g., vs. child-rearing)
  - in society as it views professionals, e.g. scientists



Final thoughts

- Science is a human activity
- Within the scientific enterprise rules are fairly clear
  - when problems arise scientists have the urge to clarify the rules, by extensive discussion and consensus-building
- Relation between science and society is much murkier