

# STEPWISE

SCIENCE & TECHNOLOGY EDUCATION PROMOTING WELLBEING FOR INDIVIDUALS, SOCIETIES & ENVIRONMENTS

<http://stepwiser.ca>

Studies of students' educated, researched & negotiated actions to overcome harms (e.g., the climate crisis) linked to science technology.

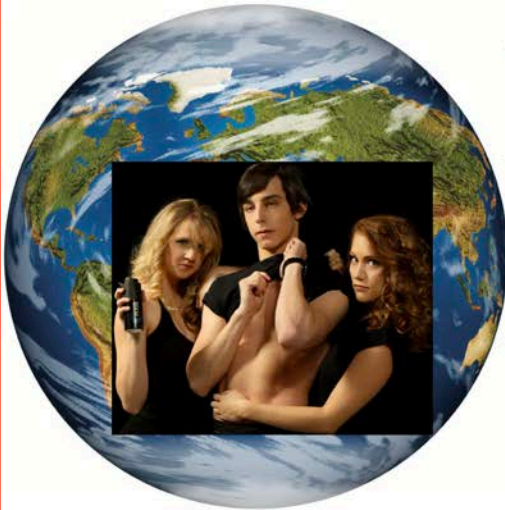
*New!*

Studies of uses in science education of findings from Science and Technology Studies (STS) involving adverse effects of influences of powerful people (e.g., financiers) and groups (e.g., corporations, governments, think tanks, etc.) on fields of science and technology (and engineering & mathematics, etc.).

Research-informed & Negotiated Actions to Address Possible Harms in Relationships Among Fields of Science & Technology and Societies & Environments

## PHENOMENA

e.g., Objects, Energy & Events



Earth (and universe) are complex and still not fully known or understood. In them, relationships among fields of science & technology and societies & environments ('STSE') may change - and, so, are worth studying and perhaps revising.

Some different actions may be:

- Personal behaviour changes
- Lobbying powerful people/groups
- Developing more just & sustainable inventions/innovations
- Educating people, locally & globally

← Action(s)



ONTOLOGICAL & IDEOLOGICAL GAPS



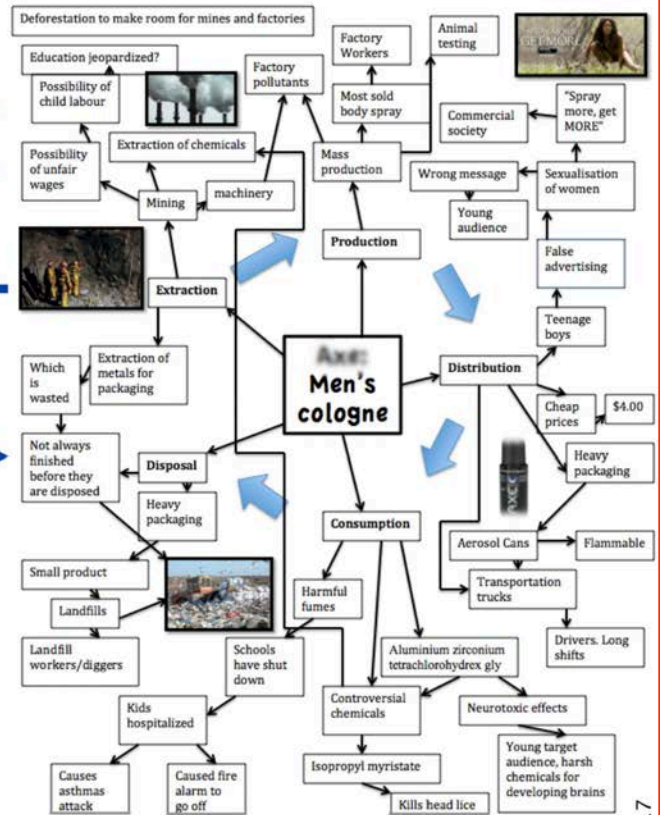
Research-->

Secondary Research  
e.g., Internet searches  
e.g., Library searches

Primary Research  
e.g., experiments  
e.g., correlational studies  
e.g., surveys, interviews, etc.

People learn from many others, and personal logic & social negotiations occur throughout

## REPRESENTATIONS e.g., Photos, Sketches, Stories



Humans can represent 'phenomena' in different ways:  
e.g., STSE Relationships  
e.g., STSE Issues & Harms  
e.g., STSE Action Plan(s)

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As shown above, students may use their education to conduct research to learn more about commodities like cologne and, then, develop actions to influence users' choices about them.



To learn more about this study and/or to get involved in it, contact: [larry.bencze@utoronto.ca](mailto:larry.bencze@utoronto.ca).