

SOCIO-TEKNISK TEKNOLOGIFORSTÅELSE

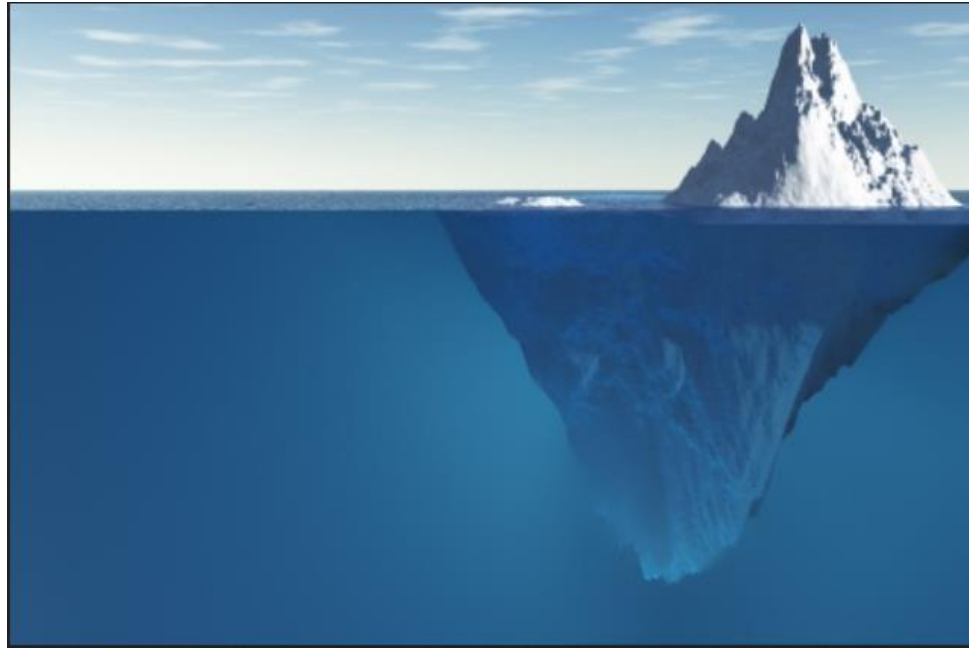
TOM BØRSEN

FORSKNINGSGRUPPEN FOR
TEKNOANTROPOLOGI OG PARTICIPATION



AALBORG UNIVERSITET

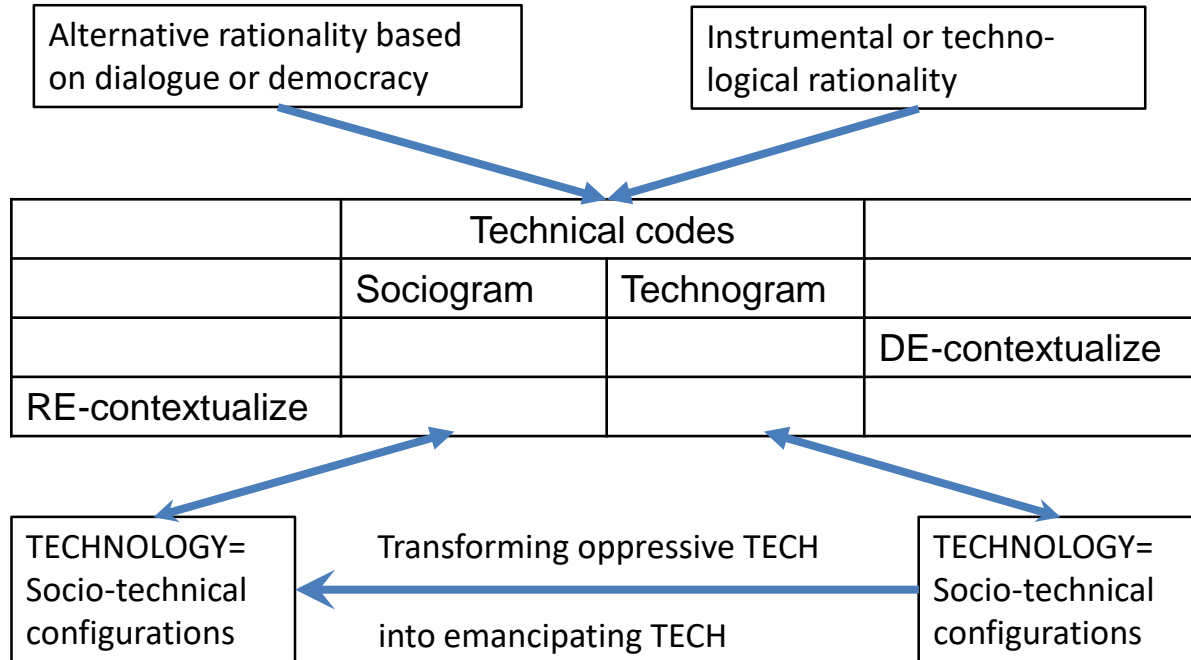
Teknologiske løsninger er socio-tekniske



- Interesser – magt – politik
- Værdier – etik
- "Infrastruktur" – institutioner – strukturer
- Tekniske elementer



CTT: Overview



AKTIONSFORSKNING -- GRUNDLÆGGENDE ANTAGELSER

INGEN SKARPE SKEL MELLEM

VIDEN OG FORANDRING. VIDEN GENERERES MENS VERDEN FORANDRES. FORANDRINGER KRÆVER VIDEN.

FORSKERE OG BRUGERE, MEDARBEJDERE, LEDELSE, EKSPERTER OG ANDRE DER ER INVOLVERET I DEN SITUATION, DER SKAL FORANDRES. ALLE KAN BIDRAGE MED VIDEN OG TIL FORANDRING. SAMARBEJDE MELLEM DE INVOLVEREDE PARTER

FASER: IDENTIFICER PROBLEM, PLANLÆGNING INTERVENTION, KVALIFICER INTERVENTION, GENNEMFØR INTERVENTION OG REFLEKTER OVER INTERVENTION.

HANDLER OM AT SE UD OVER BARRIERER, OG VENDE DEM TIL FÆLLES FORDEL. AT TÆNKE PÅ NY.

BENYTTER FREMTIDSVÆRKSTEDER OF FORSKNINGSVÆRKSTEDER

FREMTIDSVÆRKSTEDER

...GRUPPEARBEJDSMETODE, SOM SÆTTER DELTAGERNES ERFARINGER OG DERES ØNSKER TIL FREMTIDEN I CENTRUM FOR PLANLÆGNING AF FORANDRINGER PÅ FX ARBEJDSPLADSEN, I BOLIGKVARTERET, I FORENINGEN ELLER I ET HELT LOKALSAMFUND.

ARBEJDSMETODEN BESTÅR AF TRE FASER:

INDLEDNINGSVIS BESKRIVER DELTAGERNE PROBLEMET, DE NEGATIVE ELEMENTER, I EN *KRITIKFASE*.

DERPÅ FØLGER EN *UTOPIFASE*, HVOR FANTASIER OG ØNSKER OM FREMTIDIGE FORHOLD BRINGES FREM.

ENDELIG LAVES DER I EN *VIRKELIGGØRELSEFASE* PLANER FOR AT REALISERE ØNSKERNE

FORSKNINGSVÆRKSTEDER

ARBEJDSGRUPPER NEDSAT PÅ ET FREMTIDS-VÆRKSTED GÅR I DIALOG MED ANDRE FORSKERE, INTERESSEORGANISATIONER, MYNDIGHEDER OG ANDRE RELEVANTE AKTØRER.

KVALIFICERER FREMTIDSVÆRKSTEDETS HANDLEPLANER GENNEM INDDRAGELSE AF FLERE PERSPEKTIVER.

FOUR STEP MODEL – TOOL FOR QUICK AND PROPER ETHICAL TECHNOLOGY ASSESSMENT

1. IDENTIFICATION OF INTENDED BENEFICIAL CONSEQUENCES, POTENTIAL MISUSE, UNINTENDED ADVERSE SIDE-EFFECTS AND LONG-TERM CONSEQUENCES FOR CULTURE AND SOCIETY.
2. LINKAGE OF INTENDED CONSEQUENCES, MISUSE, ADVERSE EFFECTS AND CULTURAL IMPLICATIONS TO APPROPRIATE ETHICAL VALUES.
3. IDENTIFICATION OF ETHICAL DILEMMAS RELATED TO A SPECIFIC USE OF THE CHEMICAL COMPOUND UNDER ASSESSMENT.
4. FORMULATION OF APPROPRIATE TECHNOLOGICAL AND INSTITUTION DESIGN CRITERIA THAT CAN TRANSCEND THE IDENTIFIED ETHICAL DILEMMAS.

Appendix 1: Definitions of Ethical Values in the Quick and Proper Technology Assessment Model

Ethical value	Description
Authenticity	Authenticity can be defined as the right to pursue one's own authentic perception of oneself. This includes the right to follow one's ethical orientation system, rather than blindly reproducing the norms of society. Authenticity is an ethical value because every person has a right to unfold herself by pursuing what she finds valuable.
Autonomy (or 'informed consent')	Everyone has a right to self-determination as long as it does not prevent others from their right to self-determination. Autonomy can be deduced from Kant's categorical imperative: No one must be treated only as a mean and not also as an aim in themselves. Autonomy requires information and is often called 'informed consent'. It requires mental abilities and freedom to choose what one considers best. No external pressure must be put on the autonomous individual.
Compassion (and 'vulnerability')	This ethical value states that a person is obliged to help another person who is suffering, e.g. if the person is ill or in pain. Compassion is related to vulnerability that obliges a person to help another person to withstand a hostile environment if this person is not able to do it herself.
Humility	This ethical value is the anti-thesis to committing Hubris. One commits Hubris when one <i>looses</i> contact with reality and over-estimates of one's own competencies, does not listen to criticism and thinks one-dimensionally without giving alternatives any consideration. According to a Greek myth one will be punished by Nemesis if one commits Hubris. One is humble when one is self-restrained.
Inclusion (or 'the normative stakeholder principle')	This value requires i/ simultaneous attention to the interests of all legitimate stakeholders, and ii/ a balance between this <i>multiplicity</i> of interests (including self-interests).
Justice (or 'fairness')	Here is included two different definitions: 1) Just actions are to generate the greatest benefit to the least-advantaged members of society. 2) Everybody must be treated according to merit and effort; two people can only be treated differently if their merits or efforts are different. Discrimination and stigmatization are in direct conflict with the ethical value of justice. One sometimes adds words to specify different aspects of the value, e.g. 'global justice' – to indicate an unjust distribution between the North and the South – or 'intergenerational justice' – to indicate unjust distributions between current and future generations.
Precautionary principle (or simply 'precaution')	This principle states that an action should not be undertaking if there are reasonable grounds for concern, though no scientific evidence, for it having dangerous effects on the environment, humans, animals or plant health.
Privacy	Everybody has a right to personal privacy, which means to have control of one's personal (digital) information. The value of privacy limits external and inappropriate access to private information and derived social control exercised by e.g. governments, public organizations, corporations, and others.
Respect for nature	According to this value all forms of life have intrinsic or inherent value and are to be respected for their own sake. Humans are part of nature and the wellbeing and flourishing of human beings are not considered more important than the wellbeing and flourishing of other forms of life. Diversity of different life forms are contributing to the wellbeing of both individual species and individuals. This value derives from the notion of environmental rights.

Safety and security (taken together they form the 'no harm principle').	The no harm principle states that everybody has the right to be protected from harm, and safeguarded from illness, hunger, accident, and other dangers. This value encompasses protection from undesirable events and malicious actions. Sometimes a distinction between safety and security is made where safety refers to the right to be safeguarded from unintentional harm, and security refers to the right for protection against intentional harm (e.g. from terrorism)
Social stability	This ethical value focuses on how the various parts of society fit together, and strives for establishing equilibrium by balancing different aspects and interests, and as a last resort forcing out extreme ideas and individuals that disagree with popular opinion.
Stewardship for the earth	This ethical value claims that humans are responsible for the world, and therefore are obliged to take care of it by shaping trajectories of social-ecological change at local-to-global scales to enhance and balance ecosystem resilience and human well-being. This ethical value has religious origins, as it can be derived from the <i>beljewe</i> that humans are guardians of God's creation. Nature and natural resources are considered as a gift.
Transparency	Transparency requires one to operate in such a way that it is easy for others to see what actions are performed and what decision are made. It also commits visibility of the underpinning foundation with which actions and decisions are justified. Transparency implies openness, communication, and accountability.
Trust	Trust is about the elimination of doubt in oneself, in other persons and in technologies. This ethical value commits a person to act in a reliable way so that other people can trust in her, and other persons to treat the first person as a person to be entrusted. A person must not say one thing and do something different. Similar reflections regard technologies. A technology should enact according to specifications, information material and advertisement.
Utility (or 'more good than harm')	This ethical value has the foreseeable consequences in focus, and states that the ethical correct action is the one that generates the maximal well-being for the highest number of people. Well-being can be defined in different ways: as the feeling of hedonistic pleasure, realization of personal potential, a prosperous life etc. This value sometimes is called 'more good than harm' because a harmful action can be justified if it generates more good than harm.
Ubuntu	Ubuntu means humanity towards others, and can be defined as a commitment to establish stable and viable human relations on different levels – the micro, <i>meso</i> and macro levels. This value is central in African philosophy.

The table shows and defines a list of ethical values that can be used in the Quick and Proper Ethical Technology Assessment model. The values are listed alphabetically in the table. New values can be added to the list.

VALUE-SENSITIVE DESIGN

Aims at inscribing ethical values into technological solutions

VALUES ARE INSCRIBED IN TECHNICAL DESIGN

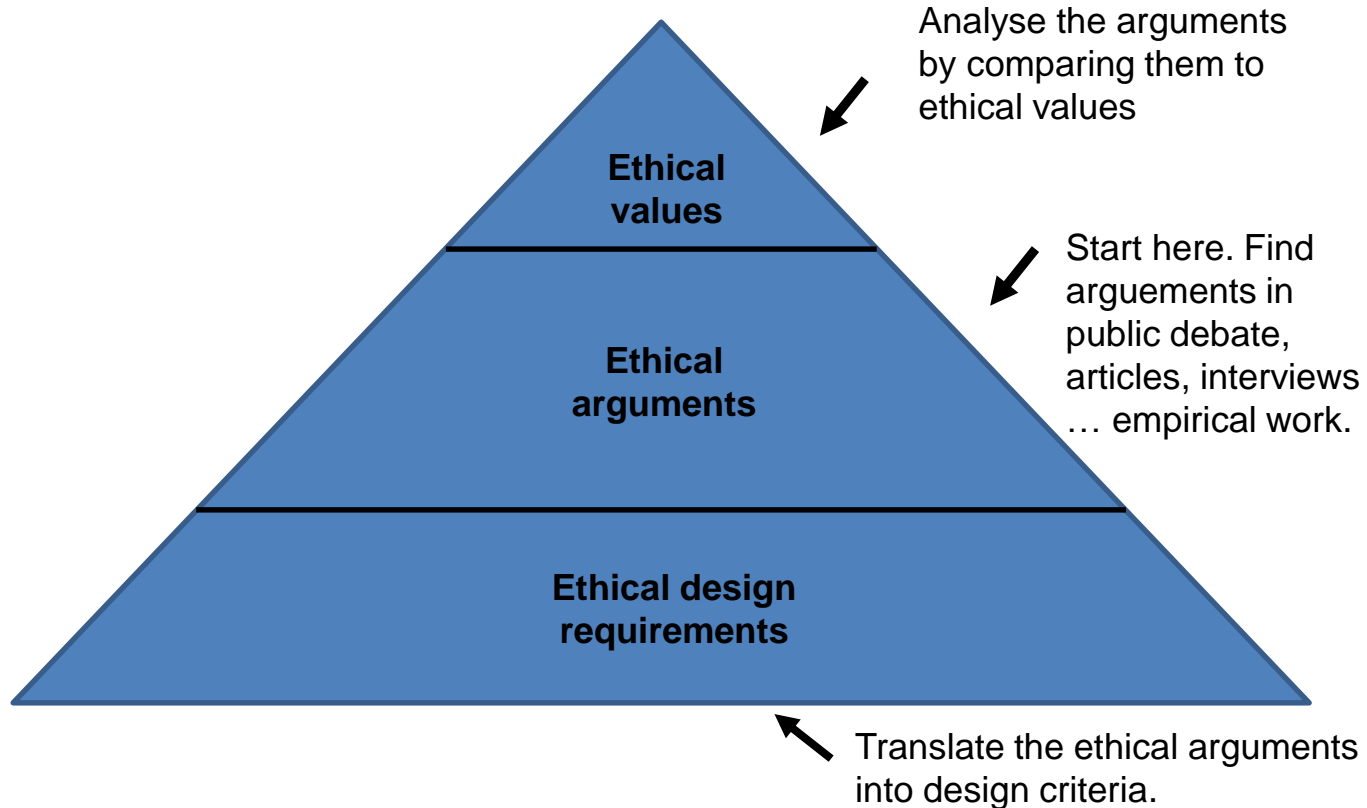
VALUES ARE SOMETIMES *HIDDEN* AND NEED TO BE *REVEALED*

TECHNOLOGIES INCLUDES VALUE CONFLICTS AND ETHICAL DILEMMAS

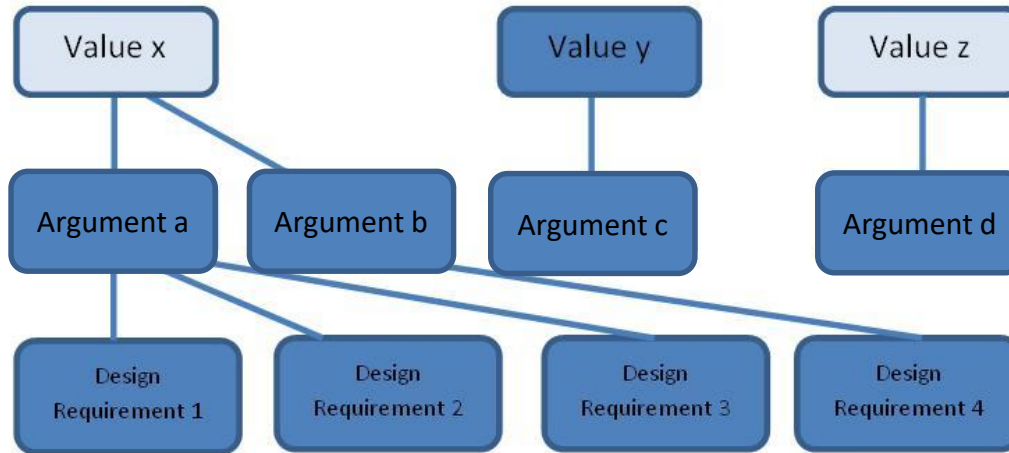
VSD TRIES TO SOLVE VALUE CONFLICTS BY DESIGN IF POSSIBLE

AND/OR REFLECT ON THE ETHICAL DILEMMA

Value hierarchy and public debate



The value hierarchy



Building on (Van de Poel 2014)

A value hierarchy can be constructed top-down or bottom-up

KONKLUSION

EN TEKNOLOGISK INTERVENTION PÅ TAN5 KAN TAGE UDGANGSPUNKT I EN TEKNOLOGISK LØSNING DER ENTEN OVERSER INVOLVEREDE GRUPPERS INTERESSER ELLER OVERSKRIDER ETISKE VÆRDIER.

INTERVENTIONEN KAN BESTÅ I AT OM-ARRANGERE DEN TEKNOLOGISKE LØSNING SÅ DEN INKLUDERER ALLE CENTRALE INTERESSER ELLER TILGODESER DE ETISKE VÆRDIER.

NYTTIGE TEORETISKE OG METODISKE TOOLS ER KRITISK TEKNOLOGITEORI, AKTIONSFORSKNING, ETISKE VURDERING, VÆRDI-FØLSOMT DESIGN