

A?

Aalto University
School of Arts, Design
and Architecture

Knowledge-making for sustainability (MUO-E8016)

Aalto Creative Sustainability
Spring 2019
Eeva Berglund

To be getting on with

- **Look briefly at the posters**
 - What impression do they give you?
 - What kind of knowledge do they plan to produce? How could you classify the different types of information being communicated there?
- **Find a seat and make way for the others and think to yourself or with a neighbour about:**
 - Anything the course has introduced & you are unsure about
 - What else you expect from the course

Outline of the rest of the session

- **Presentations**

BREAK

- **Introduction to debates on politics, policy and science**
 - Rise of participation
 - 'Inventive methods' for knowledge making
- **On assignments (and missing one-pagers from some of you)**

Today's and next week's presentations

15.5.

3) In support: Karelia, Ilona, Sonja, Anni, Yu, Jinwook

4) Opposing: Harri, Reetta, Chen, Julie, Belen, Anneliina

5) Neutral: Katri, Liangyan, Dian, Mauricio, Jukka-Pekka, Kaja

6) Opposing: Elisa, Delphine, Otso, Ulpu, Natalia

22.5.

1) In support:

Blinera, Lassi, Beda, Raffaella, Luis

2) Neutral:

Laura, Eva, Riina, Roosa, Anumaria

Art? Babakolade?

Thinking analytically about knowledge making for sustainability

Binaries, opposites and other kinds of pairs

Local, techno-scientific and other types of knowledge

Risk, uncertainty

Problems in society or problems in science/disciplines

BREAK

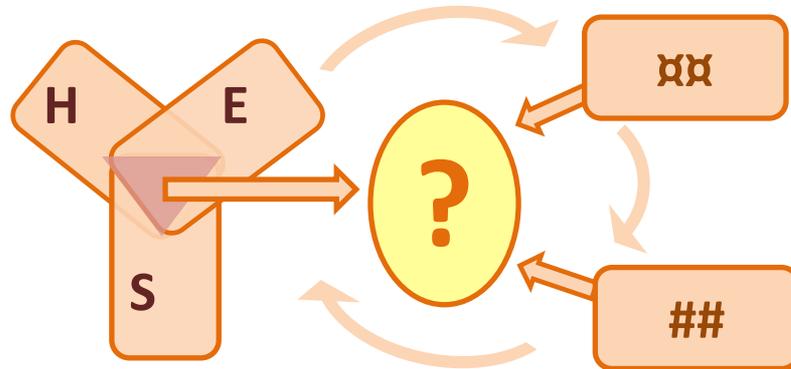
Politics, policy, science



From Marko Keskinen

TRANSDISCIPLINARITY:

Collaborative, dynamic problem solving approach crossing both disciplinary boundaries & different forms of knowledge production



'DISCIPLINARITIES' @ AALTO?

From Marko Keskinen

Aalto University's old strategy recognised both multi- and inter-disciplinarity, while new strategy talks about 'multidisciplinary collaboration'

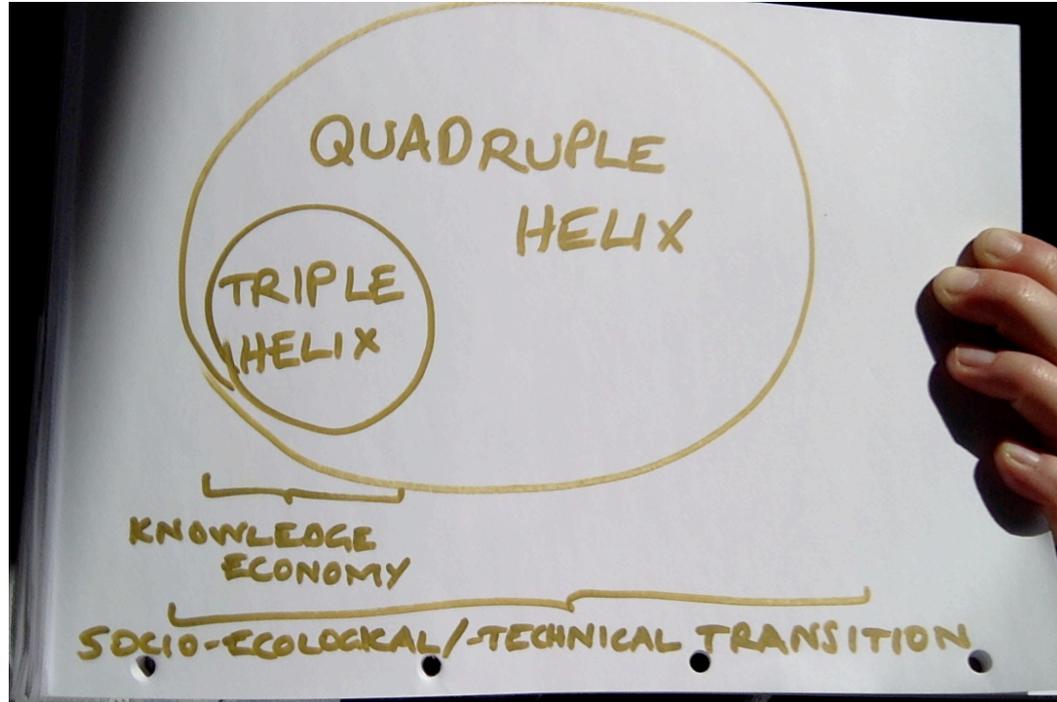
→ interdisciplinarity ... could be what makes Aalto unique!

SOCIETAL: solving the major challenges of our society requires out of the (disciplinary) box –thinking

ACADEMIC: new scientific innovations (and even new disciplines) emerge often from scientific boundaries

EDUCATIONAL: students should be given broad, systemic view + complement that with specific expertise

Who and what is involved?



Some challenges: politics

“As soon as we begin to turn our attention toward the practice of ecological crises, we notice at once that they are never presented in the form of crises of ‘nature’. They appear rather as *crises of objectivity*, as if the new objects that we produce collectively have not managed to fit [into our existing categories]”

Bruno Latour: *Politics of Nature: How to bring the sciences into democracy*, 2004, p. 20



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What is the course about?



See e.g. www.lrb.co.uk/v41/n06/jeremy-harding/among-the-gilets-jaunes

Photo: <https://www.europe1.fr/faits-divers/gilets-jaunes-a-strasbourg-un-policier-renverse-par-un-vehicule-hospitalise-3802322>

Accueil > Editorial > Entretien >

Bruno Latour : « Les Gilets jaunes sont des migrants de l'intérieur quittés par leur pays »

16 février 2019 / Entretien avec Bruno Latour



Qu'est-ce que le mouvement des Gilets jaunes révèle de l'épuisement de l'organisation politique et économique de notre société ? Quel est le rôle de l'État ? De la société civile ? Quelle place occupe l'écologie dans la transformation de la société ? Dans cet entretien, Bruno Latour livre ses réflexions sur ce moment politique « enthousiasmant ».

DOSSIER Gilets jaunes
THEMATIQUE Culture et Idées

Tribune
13 mai 2019
Le nombre d'animaux sacrifiés pour l'expérimentation continue d'augmenter, et c'est anormal

Info
13 mai 2019
Les climatologues s'inquiètent : les



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Vol. 41 No. 6 · 21 March 2019

pages 3-11 | 8336 words



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Among the Gilets Jaunes

Jeremy Harding



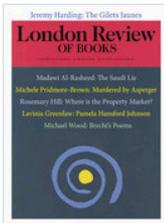
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Audio: Listen to this article. To hear more, download the Audm iPhone app.

When they gathered at roads and roundabouts at the end of last year, the French government was caught off guard. Within a week of their first nationwide mobilisation, they were turning out regularly at intersections across the country to slow up traffic, and marching through Paris and the big provincial cities. Hasty polls announced that 70 or 80 per cent of the population, including many in France's largest conurbations, supported this massive show of impatience. Yet the gilets jaunes first came together beyond the margins of the major cities, in rural areas and small towns with rundown services, low-wage economies and dwindling commerce. They were suspicious of the burgeoning metropolitan areas, which have done well on a diet of public funding, private investment, tourism and succulent property prices. Among them are people who grew up in city centres but can no longer afford to live in them: these barbarians know where they are when they arrive at the gates. Parading in central Paris and the new, carefully massaged hubs of French prosperity – Toulouse and Bordeaux especially – they end proceedings with a show of violence and destruction. After 15 weeks of costly protest, public sympathy in the big metropolitan areas has only recently begun to fall off. That is one of many puzzles.

Another is the pace at which a provincial revolt about fuel prices and speed limits broadened into a radical rejection of Macron, the office he holds, the National Assembly and the political parties, including Marine Le Pen's Rassemblement National – formerly the Front National – and Jean-Luc Mélenchon's La France Insoumise. State expenditure and tax rates for rich and poor alike were also called into question: public services in the hinterlands (schools, doctors' surgeries, childcare, care for the elderly, job creation) and local government institutions were felt to be poorly resourced and staffed, while cities flourished as immense enclaves of prosperity.

On 17 November last year, a Saturday, a motorcade of bikes and cars swept down the



Jeremy Harding is a contributing editor at the *LRB*.

MORE BY THIS CONTRIBUTOR

Bristling Ermine
R.W. Johnson

No One Leaves Her Place in Line
Martha Gellhorn

At the Pompidou
David Goldblatt

At Quai Branly
Jacques Chirac's museum

i could've sold to russia or china
Bradley Manning

Candidate Macron
The French Elections

Disaffiliate, Reaffiliate, Kill Again
Régis Debray

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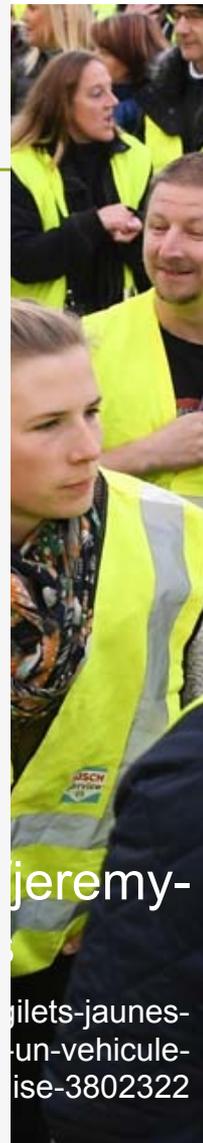


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Politics

Abstract knowledge

My Back Yard

None of these are Bad Things!



All science is historical

Mid-20th C

Robert K. Merton, Thomas Kuhn, Michael Polanyi

Science is progressive

Progresses in phases/paradigms (Kuhn)

Practical and theoretical work ALWAYS go together

Scientific research is co-ordinated activity best left to those who are engaged in doing it

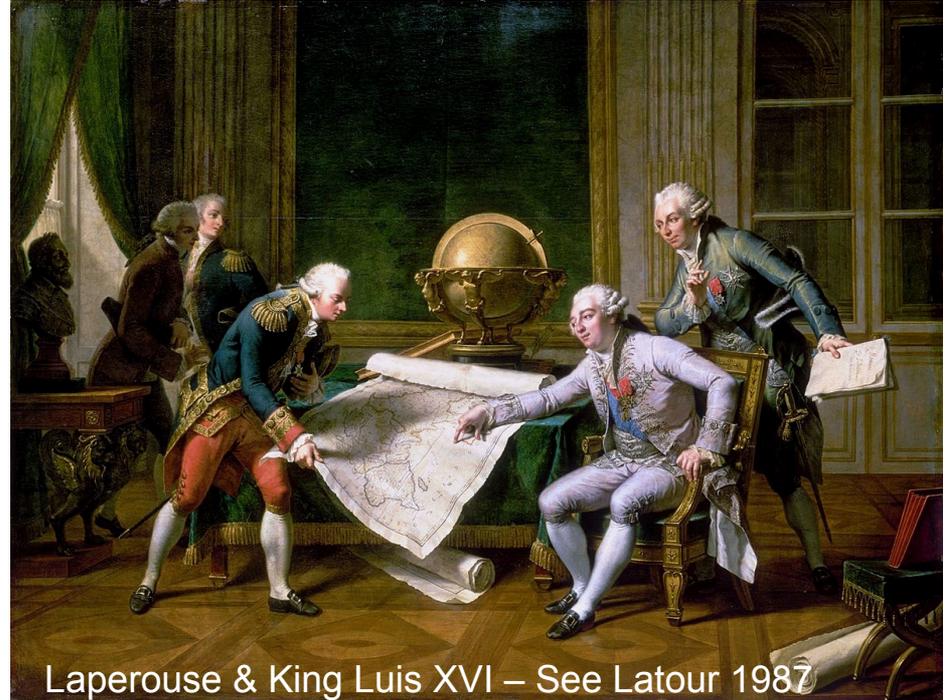
Pure science and applied science are different.



Early modern explorers found that knowledge is power

BUT:
Science is not magic

we must study the “concrete work of making abstractions”
centres of calculation and
networks of abstract and
concrete things
that help the centre dominate
the periphery



Laperouse & King Luis XVI – See Latour 1987

Millstone 2015: 'Invoking "science" in green transformations

OK, knowledge IS power, but...

"power can often be exercised by controlling the creation, diffusion and portrayals of scientific evidence"

Transparency and being in the public domain are essential.

Public domain = state agencies such as the EPA

Berlin University established 1810

The 'Humboldtian' model

Richard Grove: 'Origins of Western Environmentalism' *Scientific American* 1992

Forest reserves established on Tobago	American Revolution	French Revolution	British take back Tobago	Charles Lyell publishes <i>Principles of Geology</i>	Bad drought in South India	Madras Forest Department founded	Darwin publishes <i>The Origin of Species</i>	South African drought	Bird protection laws established in Britain
1764	1776	1789–92	1802	1830–33	1835–39	1856	1859	1862	1868
ENLIGHTENMENT					ROMANTICISM				
1769	1780–85	1791	1810	1835	1852	1858	1860s	1864	1877–78
French pass conservation laws in Mauritius	Severe famines in India	Kings Hill Forest Act passed in St. Vincent	British take Mauritius from French	Charles Darwin lands in Galápagos	British scientists report on deforestation in India	Forest and Herbage Preservation Act passed in South Africa	Drought in India; bird protection laws enacted in Tasmania	Indian Forest Service established	Drought in India

Academic / scientific research:

SHOULD:

- **Contribute to existing debates**
- **Aim for universalism, openness ('communism'), disinterestedness, organized scepticism – the classic *Mertonian* ideals**
- **Maintain and challenge authority**

Universities were expected to have corporate autonomy despite being funded by the state.

Uphold the notion of academic freedom

Classic MODERN view: Science exists for its own sake

Science is a community that knows much more than it knows it knows.

- Self-organised, decentralised, “overlapping neighbourhoods”

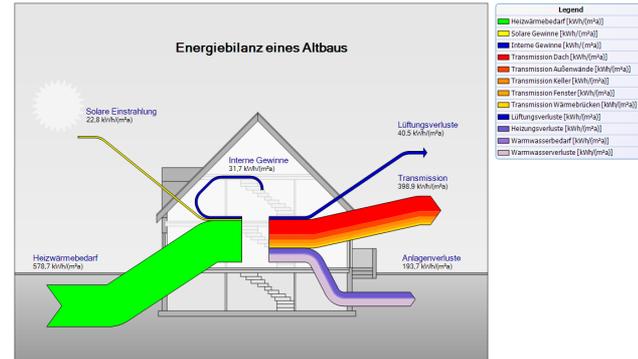
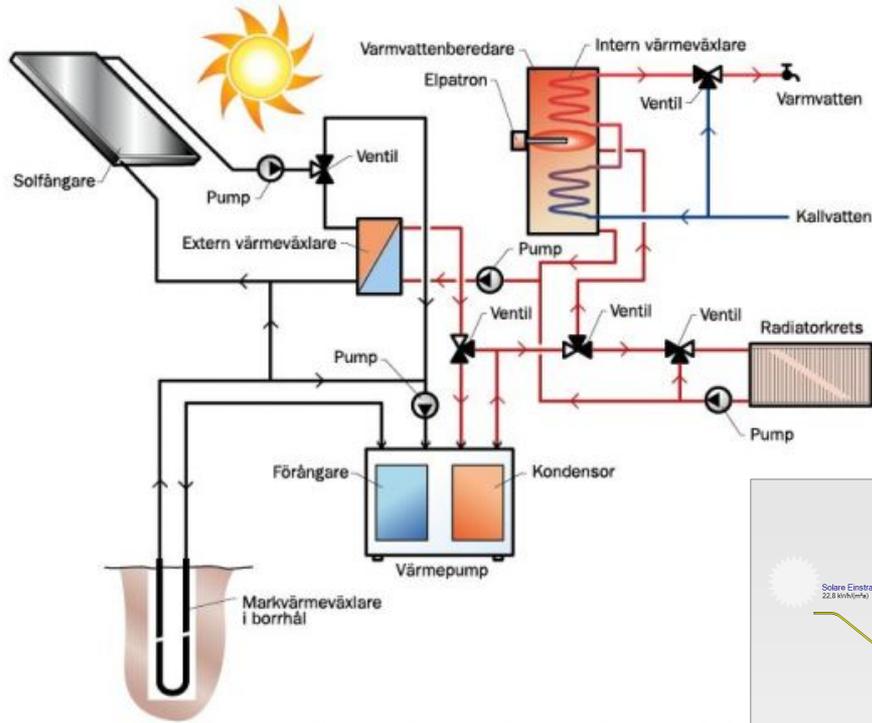
“You cannot shape science” – though you can “kill or mutilate it”

Yet it increasingly shapes our outlook on life

Fragments! Becomes a political question how to make use of it.

Michael Polanyi, 1962

Technical analysis



Political representatives are accountable to the electorate



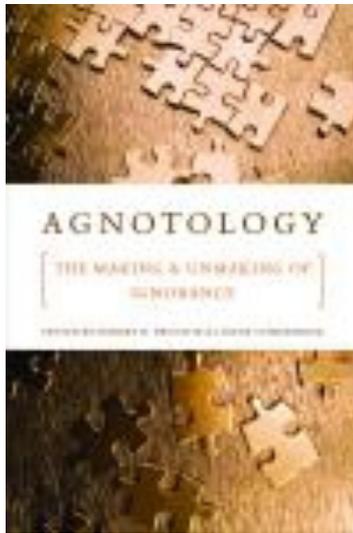
<https://yle.fi/uutiset/3-7503287>

There is a growing need ... for what we may call the ‘technologies of humility’. These are methods, or better yet institutionalized habits of thought, that try to come to grips with the ragged fringes of human understanding – the unknown, the uncertain, the ambiguous, and the uncontrollable.

S. Jasanoff 'Technologies of Humility', *Minerva*, 41: 223–244, 2003.

Are the *scientist's* ethics the same as the *expert's*? Who should make recommendations and based on what?

And still, science's responsibilities to society and to the research community, particularly in an age of "agnotology" cannot be emphasised enough.



Agnotology: The Making and Unmaking of Ignorance

Londa Schiebinger

Robert N. Proctor

May 2008

What don't we know, and why don't we know it? What keeps ignorance alive, or allows it to be used as a political instrument? Agnotology—the study of ignorance—provides a new theoretical perspective to broaden traditional questions about "how we know" to ask: Why don't we know what we don't know?

Different types of knowledge making that have arisen recently

Activist-research

Art-science collaborations

Inventive and experimental (open-ended) enquiry (Noortje Marres, design-anthropology and speculative design

- based on the insight that knowledge changes the world, particularly the social world
- social and design enquiry start from urgent need to intervene in the world
- **creative enquiry is also used to work out better problems**



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Eeva Berglund & Hanna Kaisa Vainio: Walking and talking in Helsinki: a method in search of an impact

Desire Lines, Dawdles and Drifts
RGS-IGB Conference, Cardiff
29th August 2018

15 Events

Events

Calendar

Birthdays

Discover

Kaupunkikävely

Hosting

+ Create Event

Manage Page events

Jane's Walk Helsinki

11



MAY
22

Kaupunkikävely

Public · Hosted by Lapinlahden Lähde and 4 others

✓ Going

Share

🕒 Wednesday, 22 May 2019 from 17:00–20:00
Next Week · 7–13°C Partly cloudy

📍 Lapinlahden Lähde
Lapinlahdentie 1, 00180 Helsinki

Show map

About

Discussion

PATHways to sustainability next week

Sustainability science – what is it and what might its future be?

How have universities been changing in recent decades?
What do these changes mean for efforts to improve sustainability?



Greta Thunberg: Teen activist says UK is 'irresponsible' on climate

23 April 2019



London climate change protests



MPs applauded climate change activist Greta Thunberg

Teenage activist Greta Thunberg has described the UK's response to climate change as "beyond absurd".

In a speech to MPs, the Swedish 16-year-old criticised the UK for supporting new exploitation of fossil fuels and exaggerating cuts to carbon emissions.

She was invited to Westminster after inspiring the school climate strikes movement.

The course will help you

- Identify key features of professional and scholarly knowledge in fields relevant to CS
- Understand how and why inter-disciplinary work contributes to sustainability debates; Learn and work across and between disciplines
- Recognize and work with local, tacit and non-expert types of knowledge
- Develop tools for discussing *socio-technical* change
- Critically evaluate sustainability-related knowledge claims

Learning passport – submit by midnight 31.5. in MyCourses

- 1) Label the document with the relevant identifying information**
- 2) Write a commentary on the two doctoral defenses you have attended.**
 - *See 'Assignments' menu in MyCourses for detail on doctoral defences*
 - *Write up to 600 words about anything you can reasonably understand under the heading 'knowledge making for sustainability'*
- 3) Write a short reflection of a few hundred words about what the course readings have given you. Add a list of references used, formatted in the correct way (see feedback on assignment 1 if you are unsure).**