

Management sciences and the Anthropocene: The case of fablabs

RITM Management Seminar, Université Paris-Saclay, February 13, 2020

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WHY THIS PAPER?

- Firms' environmental behaviour (PhD)
- ICT & the environment (EcoInfo [book](#), [Rebound](#) effects)
- Rockstrom,
Steffen & al.



[ICT Innovations for Sustainability pp 435-448](#) | [Cite as](#)
Rebound Effects and ICT:

A screenshot of a Nature journal article. The title is "FEATURE" in red. The main heading is "A safe operating space for humanity". Below it, a subtext reads: "Identifying and quantifying planetary boundaries that must not be transgressed could help prevent human activities from causing unacceptable environmental change, argue Johan Rockström and colleagues." The journal information at the top right is "Vol 461 | 24 September 2009".

A screenshot of an AMBIO journal article. The title is "INVITED PAPER" in grey. The main heading is "The Anthropocene: From Global Change to Planetary Stewardship". Below it, a list of authors is provided: Will Steffen, Åsa Persson, Lisa Deutsch, Jan Zalasiewicz, Mark Williams, Katherine Richardson, Carole Crumley, Paul Crutzen, Carl Folke, Line Gordon, Mario Molina, Veerabhadran Ramanathan, Johan Rockström, Marten Scheffer, Hans Joachim Schellnhuber, Uno Svedin. The journal information at the top left is "AMBIO (2011) 40:739–761 DOI 10.1007/s13280-011-0185-x".

- Gail Whiteman

A screenshot of a Journal of Management Studies article. The title is "JOURNAL OF MANAGEMENT STUDIES". Below it, "Journal of Management Studies 50:2 March 2013 doi: 10.1111/j.1467-6486.2012.01073.x". The main heading is "Planetary Boundaries: Ecological Foundations for Corporate Sustainability". At the bottom, the authors are listed as "Gail Whiteman, Brian Walker and Paolo Perego".

A.S. Tsui

A screenshot of a Management and Organization Review article. The title is "Editorial The Spirit of Science and Socially Responsible Scholarship". Below it, the author is listed as "Anne S. Tsui^{1,2,3,4}". The journal information at the top left is "Management and Organization Review 9:3, November 2013, 375–394 doi: 10.1111/more.12035". At the top right is a logo with Chinese characters: 理组织研究管.

A word on the context

COMMENT A-T-ON OCCUPÉ NOTRE ESPACE VITAL ?

-300 000



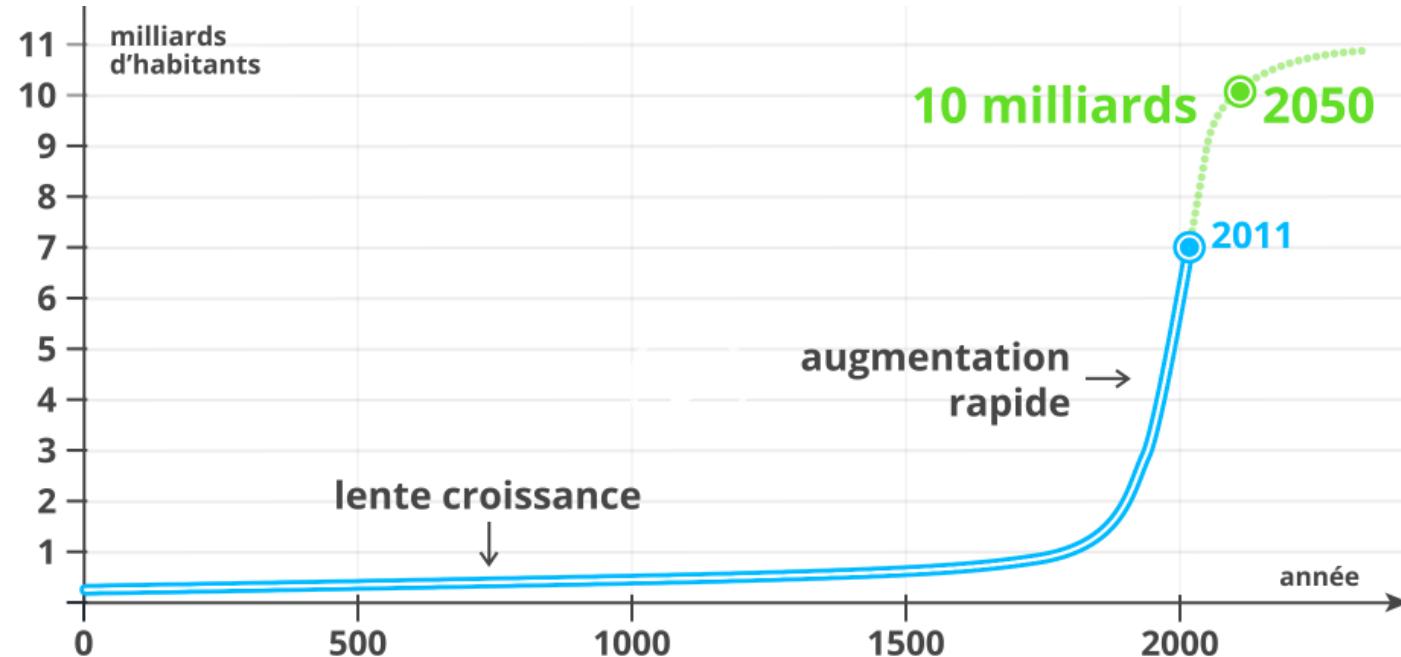
<https://fr.wikipedia.org/wiki/Chasseur-cueilleur>

-10 000

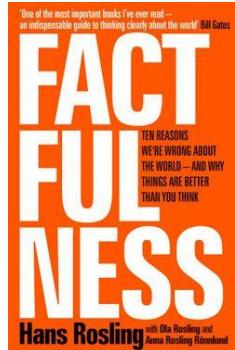
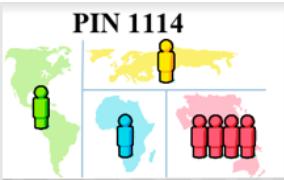


<https://en.wikipedia.org/wiki/Hunter-gatherer>

BOULEVERSEMENT DÉMOGRAPHIQUE

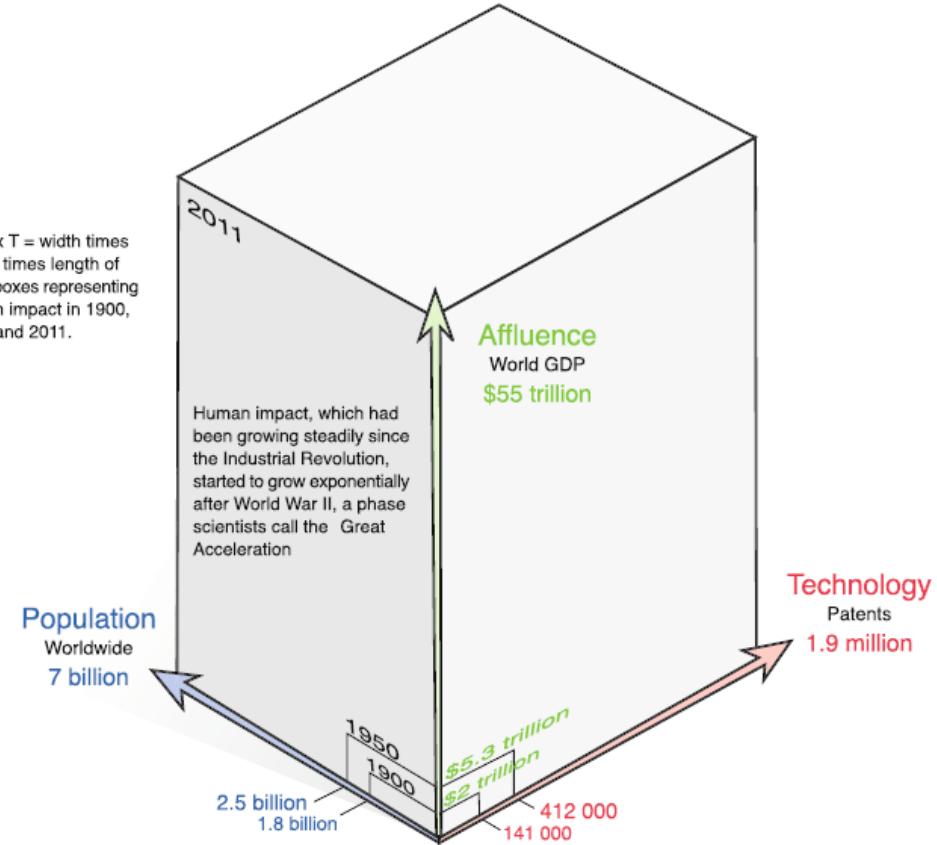


BOULEVERSEMENT DES MODES DE VIE : LA GRANDE ACCÉLÉRATION



<https://www.gapminder.org/factfulness>

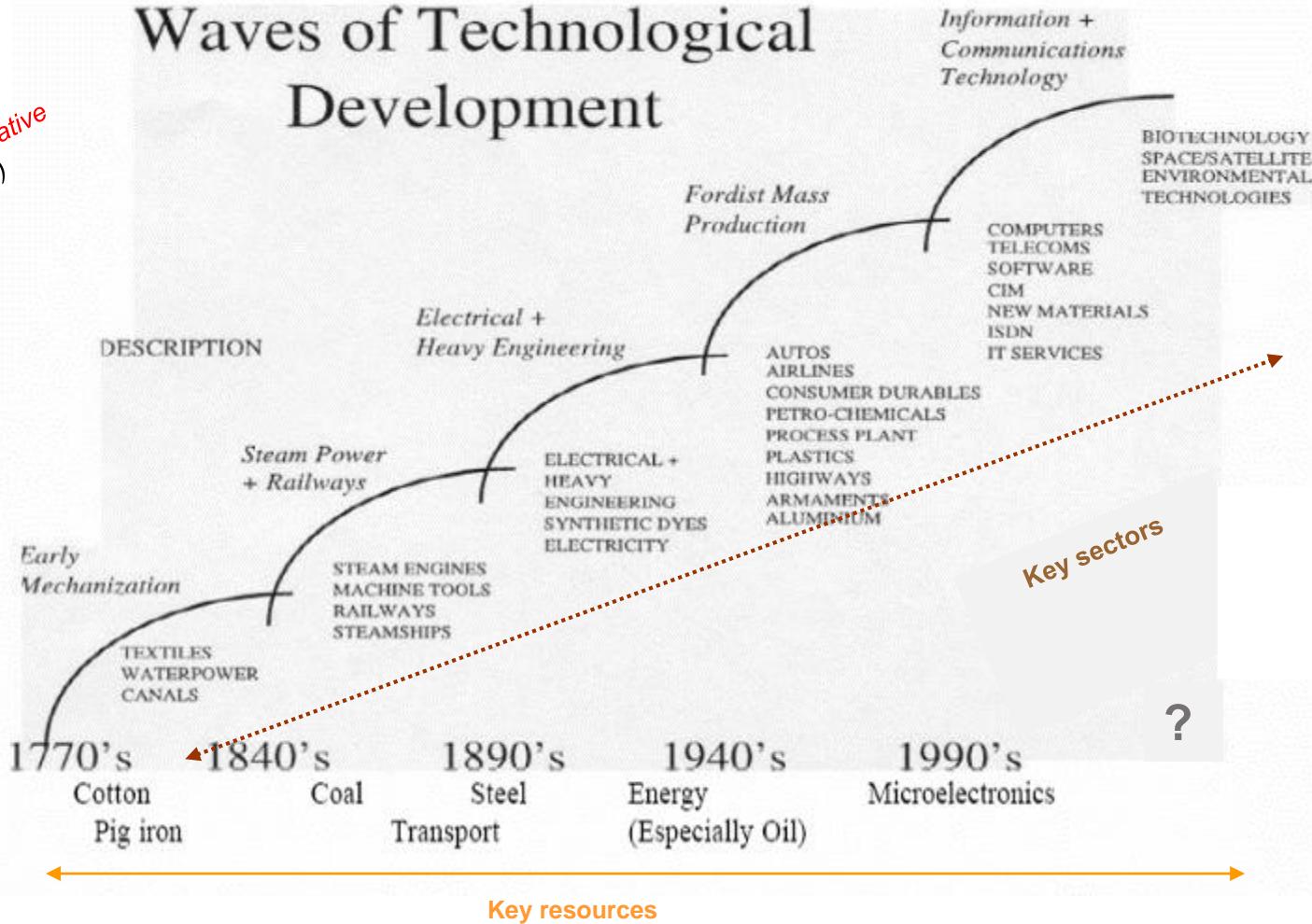
$P \times A \times T = \text{width times height times length of three boxes representing human impact in 1900, 1950 and 2011.}$



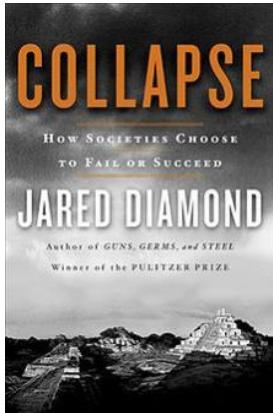
Source : Steffen W. et al. (2011). The anthropocene: from global change to planetary stewardship. *Ambio* 40(7): 739-761.

Waves of Technological Development

(JAS: "gales of creative destruction")



RISK OF ECOLOGICAL COLLAPSE



Source:

http://en.wikipedia.org/wiki/Collapse:_How_Societies_Choose_to_Fail_or_Succeed

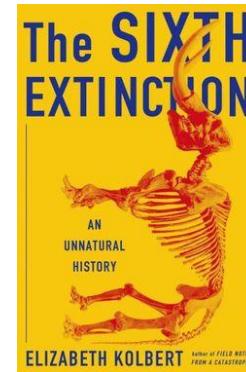
A screenshot of a New Yorker magazine article. The header says 'THE NEW YORKER'. Below it are navigation links: News, Books & Culture, Fiction & Poetry, Humor & Cartoons, Magazine, Crossword, Video, Podcasts, Archive. A comment section says 'COMMENT MAY 20, 2019 ISSUE'. The main title is 'CLIMATE CHANGE AND THE NEW AGE OF EXTINCTION'. A quote below it reads: 'People easily forget "last of" stories about individual species, but the loss of nature also threatens our existence.' A photo of Elizabeth Kolbert is at the bottom left, with the caption 'By Elizabeth Kolbert May 13, 2019'.

<https://www.newyorker.com/magazine/2019/05/20/climate-change-and-the-new-age-of-extinction>

A screenshot of a TED talk page. The header has 'TED' and links for Watch, Read, Attend, Participate, About, and a search bar. The video thumbnail features Jared Diamond speaking, with a play button icon. The title of the talk is 'Jared Diamond: Why do societies collapse?'. Below the title are details: 'TED2003 - 18:21 - Filmed Feb 2003' and 'Subtitles available in 29 languages'. There is also a link to 'View interactive transcript'.

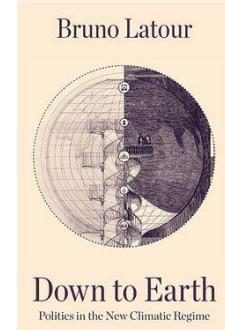
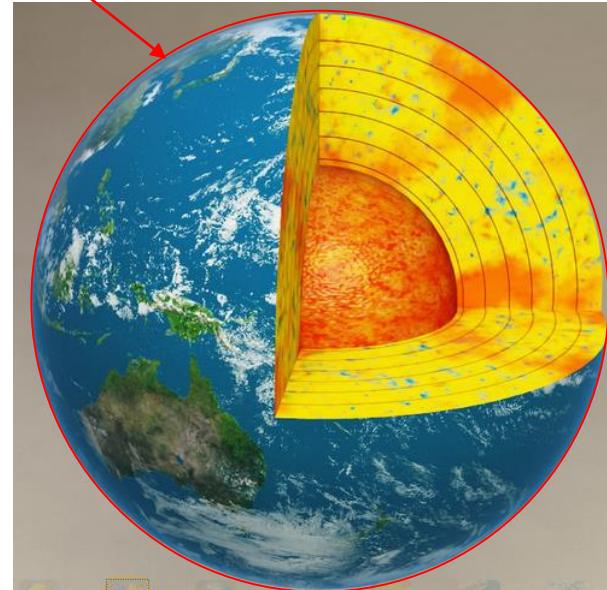
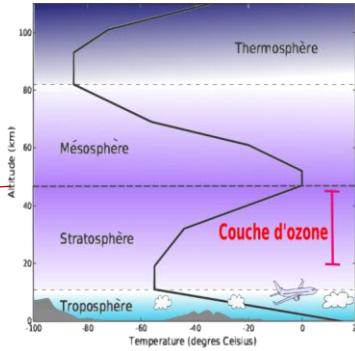
Source: http://www.ted.com/talks/jared_diamond_on_why_societies_collapse
(18 minutes; 2,5 million views)

https://en.wikipedia.org/wiki/Elizabeth_Kolbert



THE THIN LAYER OF LIFE ON EARTH...

Where we find the **biosphere** [-11000 m. → +6000 m.]
(V. Vernadsky, 1929)



<http://www.bruno-latour.fr/node/754>

Bienvenue dans l'anthropocène ?

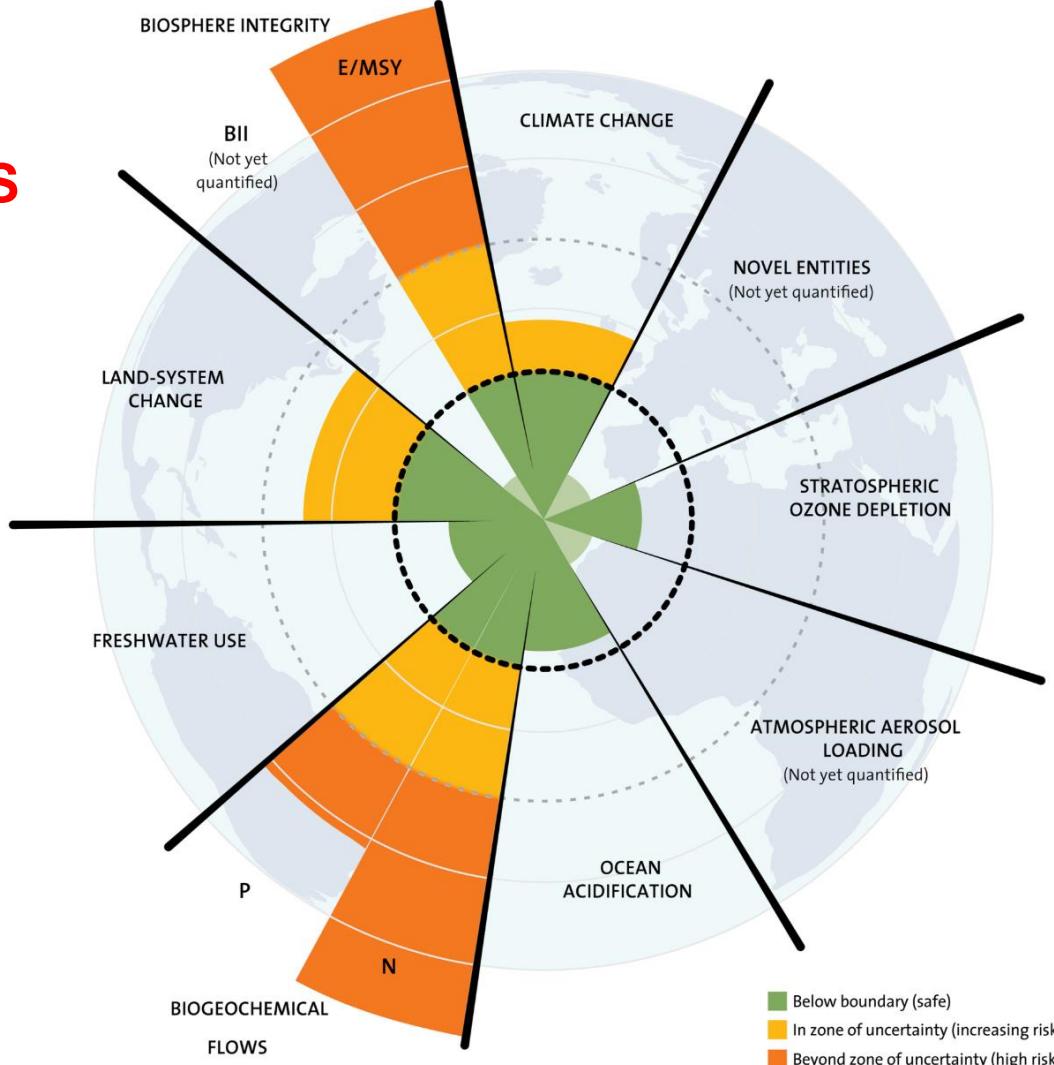


"L'anthropocène est la période, dans la chronologie géologique, où **les humains ont sorti la planète de ses limites écologiques**".

<http://www.metropolefilms.com/index.php/filmlink?id=30638a26-6f1d-e811-9449-0ad9f5e1f797>

L'URGENCE : LES LIMITES PLANÉTAIRES

“The **planetary boundaries** framework defines a safe operating space for humanity based on the intrinsic biophysical processes that regulate the stability of the Earth System.”

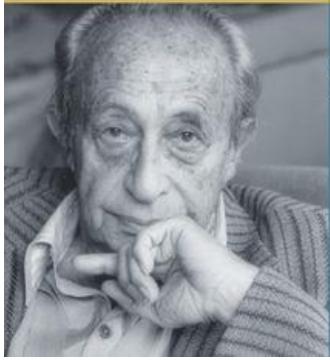


QUELLES STRATEGIES FACE AUX GRANDS ENJEUX ?



FIRMS' CONTRIBUTION THROUGH CSR

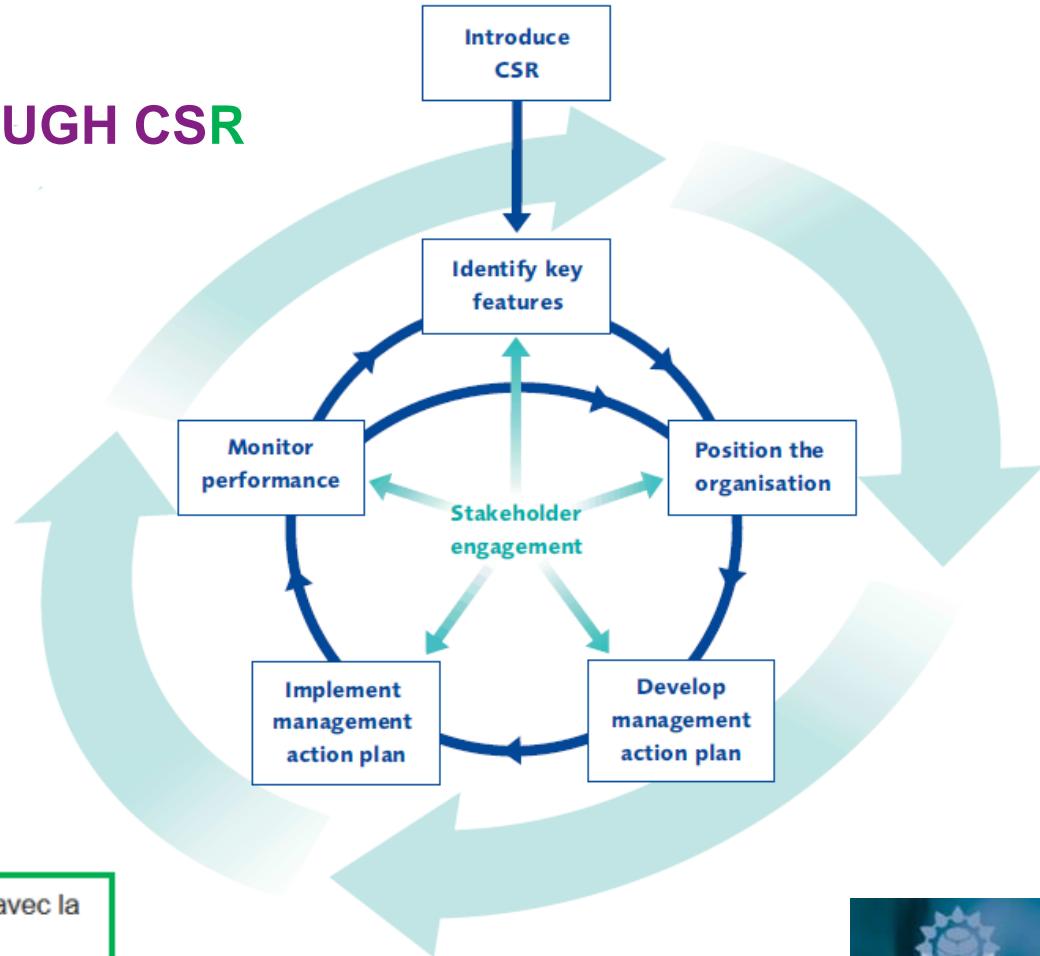
Hans Jonas
Das Prinzip
Leben



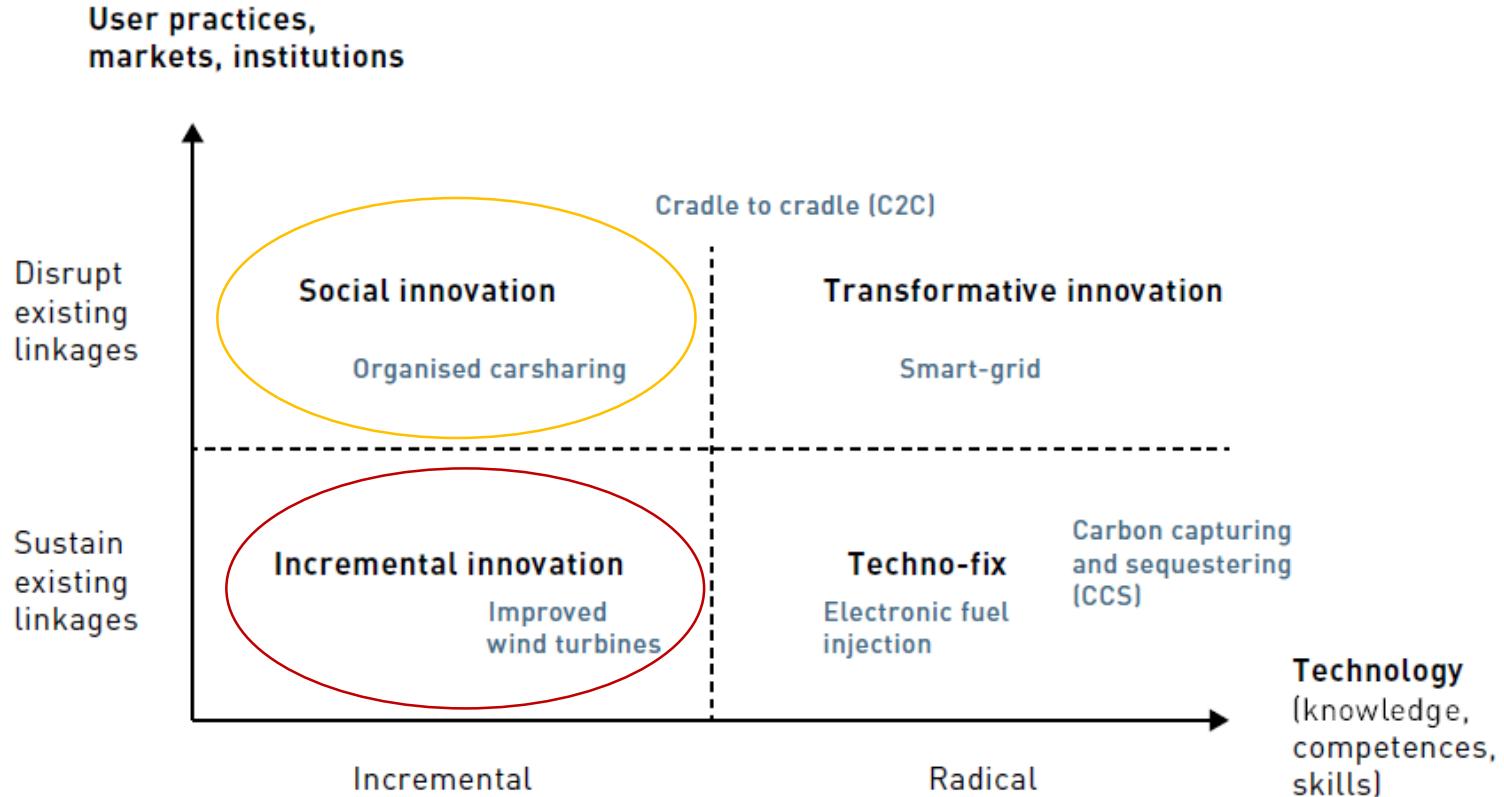
Suhrkamp

Responsabilité ?

« Agis de façon que les effets de ton action soient compatibles avec la permanence d'une vie authentiquement humaine sur Terre. »



OTHER CONTRIBUTIONS OF ORGANISATIONS



THE CASE OF ECO-INNOVATIONS

Rennings (2013):

“Environmental innovations consist of new or modified processes, techniques, practices, systems and products to avoid or to reduce environmental harms.”

J Evol Econ
DOI 10.1007/s00191-014-0381-5

REGULAR ARTICLE

Lock-in and path dependence: an evolutionary approach to eco-innovations

Grazia Cecere · Nicoletta Corrocher ·
Cédric Gossart · Muge Ozman

SOME ECO-INNOVATIONS ... CAN GENERATE LOCK-IN!

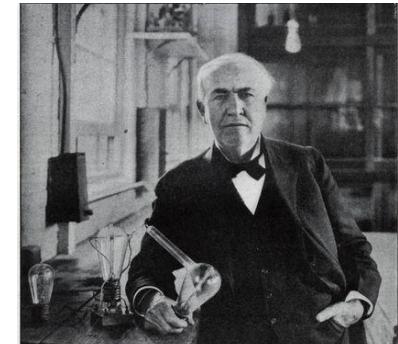
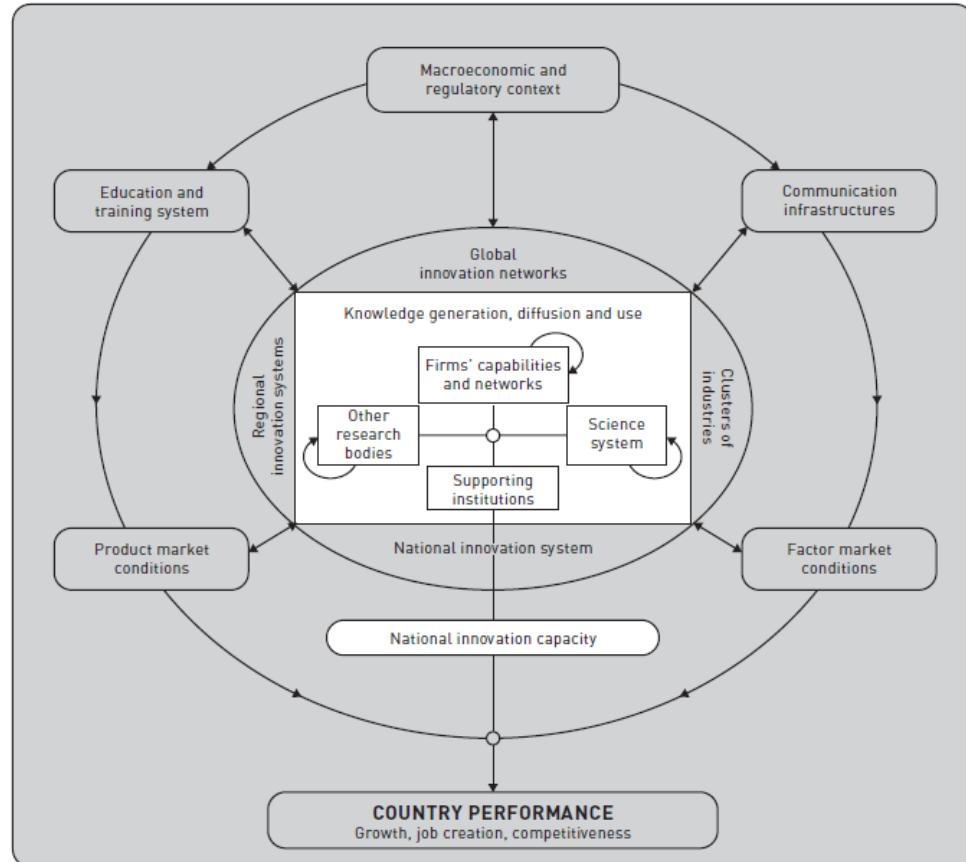
Continuous improvements in a given technology further strengthens their market.

E.g., Oltra & Saint Jean (2009): trajectory of **internal combustion engine** (ICE) environmentally improved by **efficiency inventions** (direct fuel injection, particle filters, new combustion concepts).

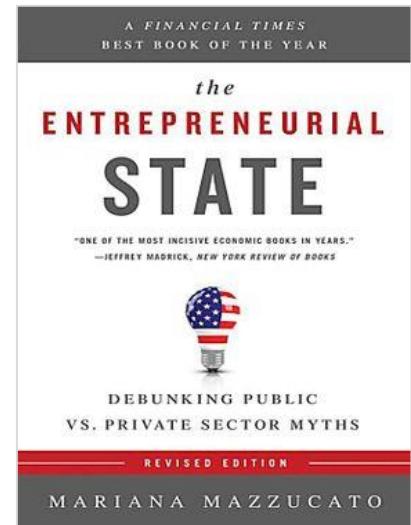
ICE: strong and persistent dominant design, most engine innovations still focused on incremental changes within this design, supported on the consumer side by a demand for incremental changes.

Systemic changes?

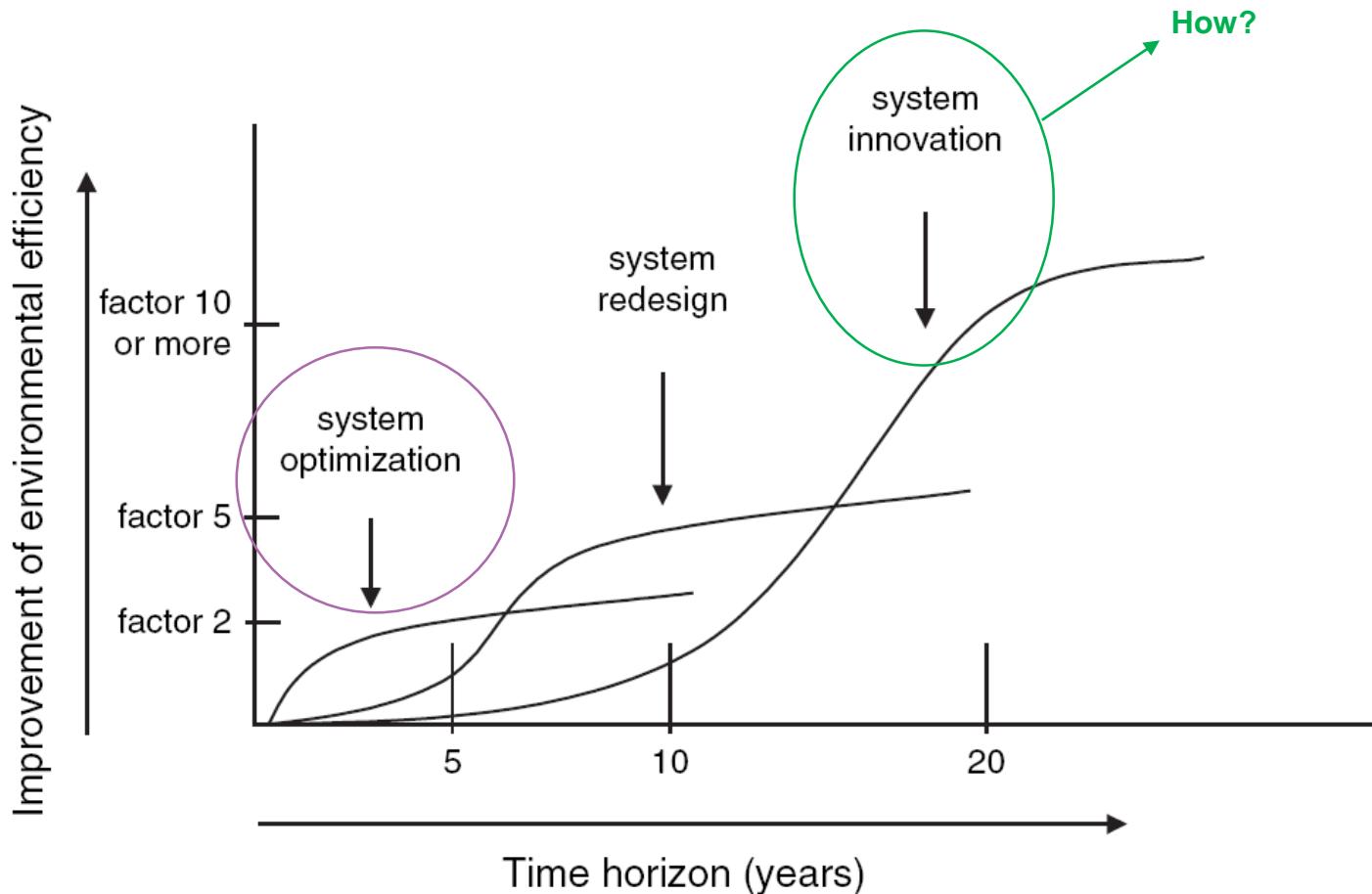
INNOVATION IS SYSTEMIC



innovator in his garage (Edison)



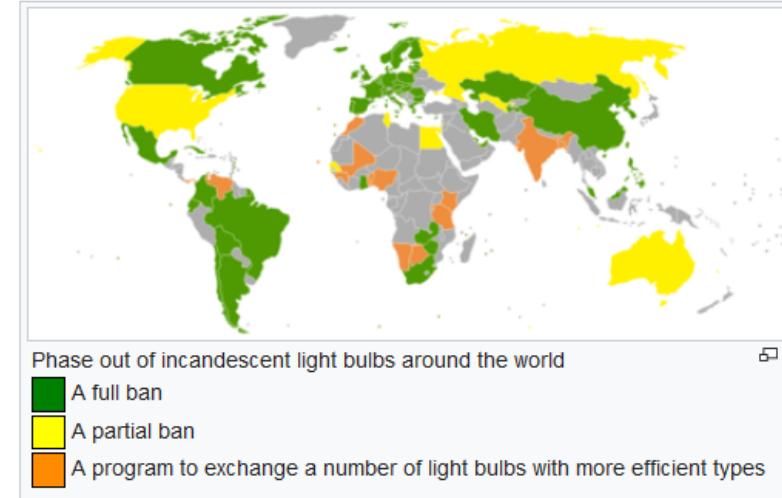
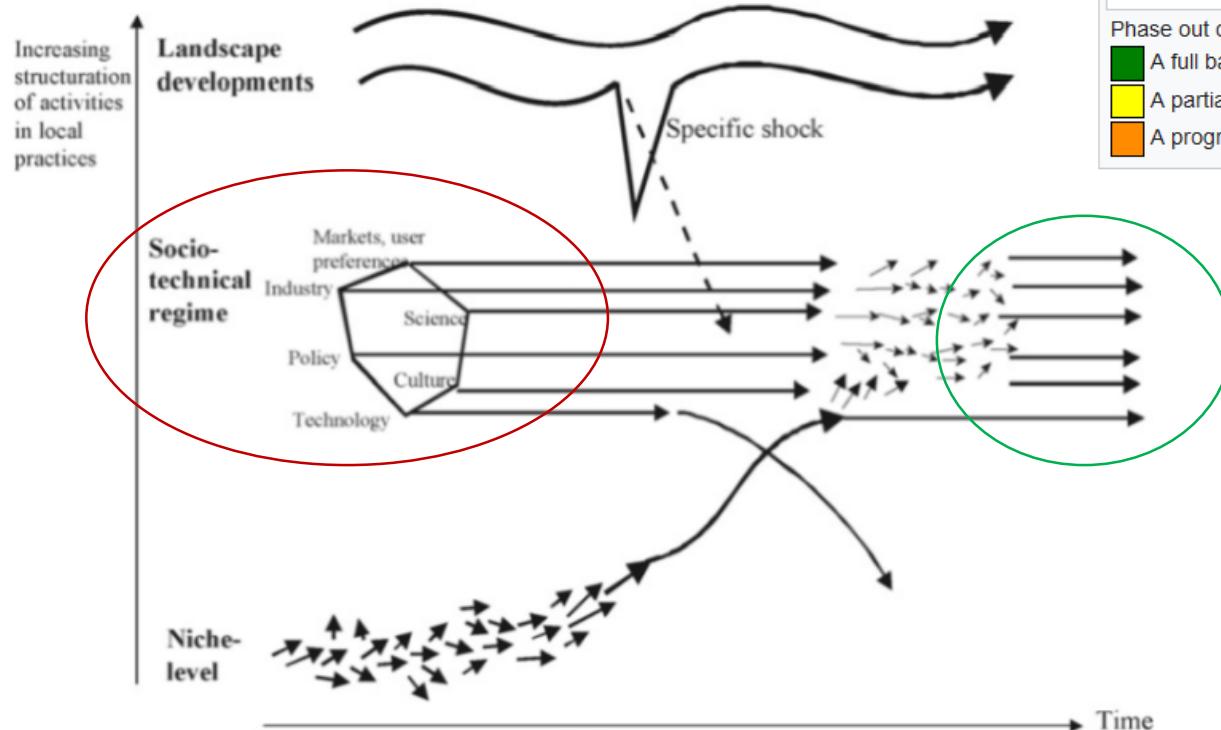
A TYPOLOGY OF SYSTEMIC CHANGES



Source: Tukker, A., and M. Butter (2007). Governance of sustainable transitions: about the 4(0) ways to change the world. *Journal of Cleaner Production* 15(1): 94-103.

EXAMPLE: THE CASE OF LIGHTING

Regime shift following an external shock



https://en.wikipedia.org/wiki/Phase-out_of_incandescent_light_bulbs

Towards a decarbonized lighting system?

Source : Geels, F. and J. Schot (2007). "Typology of sociotechnical transition pathways." Research Policy 36(3): 399-417.

Management sciences?

MANAGEMENT SCIENTISTS & THE ANTHROPOCENE

Business as usual



"In relation to climate change for instance, some corporations uphold an illusion of compromise between the environment and the market by adapting the meaning of concepts such as '**CSR**' and '**sustainability**' to fit existing corporate agendas and expand the capitalist imaginary."

Codes de conduite et systèmes d'alerte éthique : La RSE au sein des chaînes globales de valeur

*Codes of conduct and Whistleblowing: corporate social responsibility in global value chains
Códigos de conducta y sistemas de alerta ética en el seno de las cadenas globales de valor ?*

CORINNE VERCHER, FLORENCE PALPACUER ET SANDRA CHARREIRE PETIT

« au fur et à mesure que la RSE se managérialise – un processus qu'elle qualifie de « RSE-isation » (**CSR-ization**) –, sa composante procédurale et contractuelle se renforce au détriment de sa dimension morale »

Revue de la régulation

Capitalisme, institutions, pouvoirs

Maison des Sciences de l'Homme - Paris Nord

9 | 1er semestre / Spring 2011 :

RSE, régulation et diversité du capitalisme

Dossier : RSE, régulation et diversité du capitalisme



MANAGEMENT SCIENTISTS & THE ANTHROPOCENE: @ GCs

JOURNAL OF MANAGEMENT STUDIES

Journal of Management Studies 50:2 March 2013
doi: 10.1111/j.1467-6486.2012.01073.x

Planetary Boundaries: Ecological Foundations for Corporate Sustainability

Gail Whiteman, Brian Walker and Paolo Perego

67 Critical Organizational Anthropocene Studies

Hervé Corvellec | Alison Stowell | Steffen Böhm



Proposal for a Standing Working Group (2021-2024)
European Group for Organization Studies

New!

ORGANIZATION STUDIES IN THE ANTHROPOCENE:
SYSTEM CHANGE, NOT CLIMATE CHANGE

Paul S. Adler, University of Southern California, USA (Lead Coordinator):
padler@marshall.usc.edu

© Academy of Management Journal
2016, Vol. 59, No. 6, 1880–1895.
<http://dx.doi.org/10.5465/amj.2016.4007>

A Framework for Addressing Grand Challenges

UNDERSTANDING AND TACKLING SOCIETAL GRAND CHALLENGES THROUGH MANAGEMENT RESEARCH

GERARD GEORGE
Singapore Management University

JENNIFER HOWARD-GRENVILLE
University of Cambridge

APARNA JOSHI
Pennsylvania State University

LASZLO TIHANYI
Texas A&M University

© Academy of Management Journal
2016, Vol. 59, No. 6, 1869–1877.
<http://dx.doi.org/10.5465/amj.2016.4006>

Beyond the Published Article

FROM THE EDITORS

MANAGEMENT RESEARCH IN AMJ: CELEBRATING IMPACT WHILE STRIVING FOR MORE

MANAGEMENT SCIENTISTS & THE ANTHROPOCENE : @ GCs

How?

Editorial

The Spirit of Science and Socially Responsible Scholarship

Anne S. Tsui^{1,2,3,4}

¹Arizona State University, U.S.A., ²Fudan University, China

⁴Shanghai Jiao Tong University, China

“From Paper-motivated Research to Context-sensitive Scholarship”

Management and Organization Review 9:3, November 2013, 375–394
doi: 10.1111/morc.12035

Action Research

Volume 1(1): 9–28: 034201[1476-7503(200307)1:1]
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www.sagepublications.co.uk



EDITORIAL

Why action research?

Mary Brydon-Miller
University of Cincinnati, USA
Daydril Greenwood
Cornell University, USA
Patricia Maguire

Western New Mexico University, USA
and members of the editorial board of *Action Research*¹

Scholarly Impact: A Pluralist Conceptualization

HERMAN AGUINIS
Indiana University

DEBRA L. SHAPIRO
University of Maryland

ELENA P. ANTONACOPOULOU
GNOSIS, University of Liverpool

THOMAS G. CUMMINGS
University of Southern California

Academy of Management Perspectives

Bridging the Research–Practice Gap

by Pratima Bansal, Stephanie Bertels, Tom Ewart, Peter MacConnachie, and James O'Brien

“researchers doing engaged scholarship must surmount the “**double hurdle**” of scholarly and practical impact, a difficult task that generally requires treating engaged research as a **vocation** or **calling**, not simply an episodic event leading to a publishable outcome”

My 2 ¢...



Fablabs & the Anthropocene

HOW DO FABLABS CHANGE THEIR PRACTICES TO RESPOND TO GRAND CHALLENGES?

Fablabs & ODD

<https://iness.wp.imt.fr/projets-en-cours/fablabs-odd/>

#OctoberMake 2019

⌚ 27 novembre 2019



 **MAKERY** le média de tous les labs [EN](#)

[/ Actus](#) [/ Vie des labs](#) [/ Interview](#) [/ Enquête](#) [/ Chronique](#) [/ Bricole It Yourself](#) [/ Proto](#) [/ Medialab](#) [/ Carte des labs](#) [/ Carte de l'art et des](#)



/ Focus

A l'Ecole de l'Anthropocène : à Lyon, une plateforme citoyenne en action

Publié le 10 février 2020 par Maxence Grugier

A L'Ecole de l'Anthropocène, événement annuel international, proposait à Lyon une semaine de réflexions et d'actions du 27 janvier au 02 février pour faire se croiser chercheurs et grand public.

<https://www.makery.info/>



INESS

Le laboratoire d'idées "Innovations, Numérique, Économie Sociale et Solidaire"

<https://iness.wp.imt.fr/projets-en-cours/fablabs-odd/>

RFFLabs - Le site du réseau FabLab

GT écologie - RFFLabs

C'est quoi, les Objectifs de Développement Durable ?

chat.fablab.fr/rfflabs/channels/gt-écologie

Vos horaires pendant l...

Association Bernard G...

Appel conjoint pour p...

Science-Based Pathwa...

TI

@grossart RFFLabs

My sites DBs Check

CANAUX

- 0. Le bar du RFFLab...
- 1. General
- GT écologie

Plus...

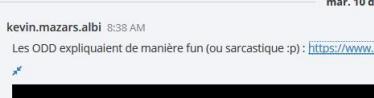
GROUPES PRIVÉS

- kevin.mazars.albi
- volny

Plus...

kevin.mazars.albi 8:38 AM

Les ODD expliquaient de manière fun (ou sarcastique ;p) : <https://www.youtube.com/watch?v=T2kg1TV2qVQ>



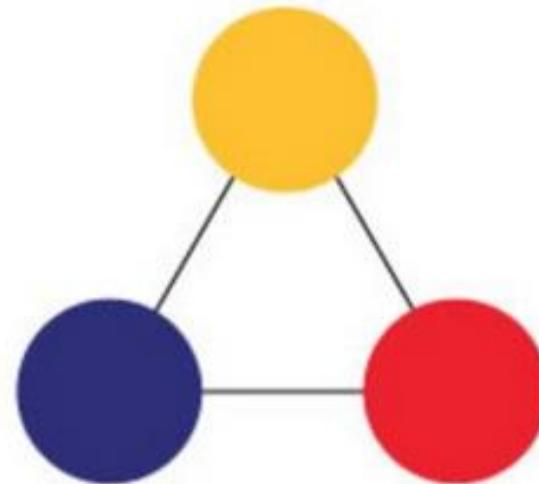
11TH GENEVA FORUM

from Monday 9 Dec. to Friday 13 Dec. 2019
at United Nations Organization, Geneva (Switzerland)

ORGANISATIONAL PRACTICES & THE ANTHROPOCENE?

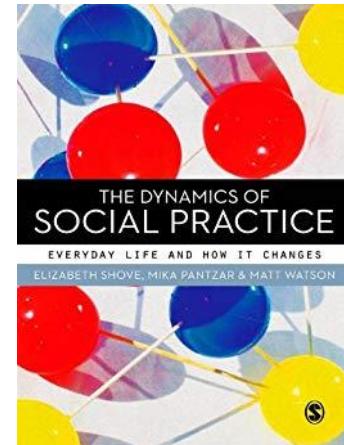
1. Fablabs & SDGs?
2. Current SDG-related practices?
3. Fablabs & Systemic changes?

Meaning: cultural conventions, expectations and socially shared meanings



Material: objects, tools, infrastructures

Competence: knowledge and embodied skills



KEY REFERENCES

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- Linnenluecke, M.K., & Griffiths, A. (2013): "Firms and sustainability: Mapping the intellectual origins and structure of the corporate sustainability field." *Global Environmental Change*, 23 (1), 382–391.
- Whiteman, G., Walker, B., & Perego, P. (2013): "Planetary Boundaries: Ecological Foundations for Corporate Sustainability." *Journal of Management Studies*, 50 (2), 307–336.
- <http://www.anthropocenemagazine.org/>

JOURNÉE INESS

11 MARS 2020



Innovations, Numérique, Économie Sociale et Solidaire

Les grands défis écologiques et sociaux de l'humanité nécessitent une transformation systémique. L'économie sociale et solidaire (ESS) représente une voie prometteuse de transition vers des sociétés humaines plus justes et respectueuses des écosystèmes naturels.

Le laboratoire d'idée INESS de l'Institut Mines-Télécom a l'ambition d'étudier et d'accompagner les acteurs de l'ESS qui innovent par le numérique pour répondre à cette transformation.

Pour lancer les réflexions collectives sur ces questions, INESS invite les chercheurs et les praticiens le 11 mars 2020 à une journée d'échange sur les questions à étudier ensemble (contact : iness@listes.imt.fr).

<https://iness.wp.imt.fr/>



Institut Mines-Télécom
Business School

Thank you.



Cédric GOSSART

Professor, codirector of LITEM

<https://gossart.wp.imt.fr/>

INESS IDEA lab: <https://iness.wp.imt.fr>

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