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Cities and the Anthropocene: learning from fiction

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UCA
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Insights from a research program conducted with



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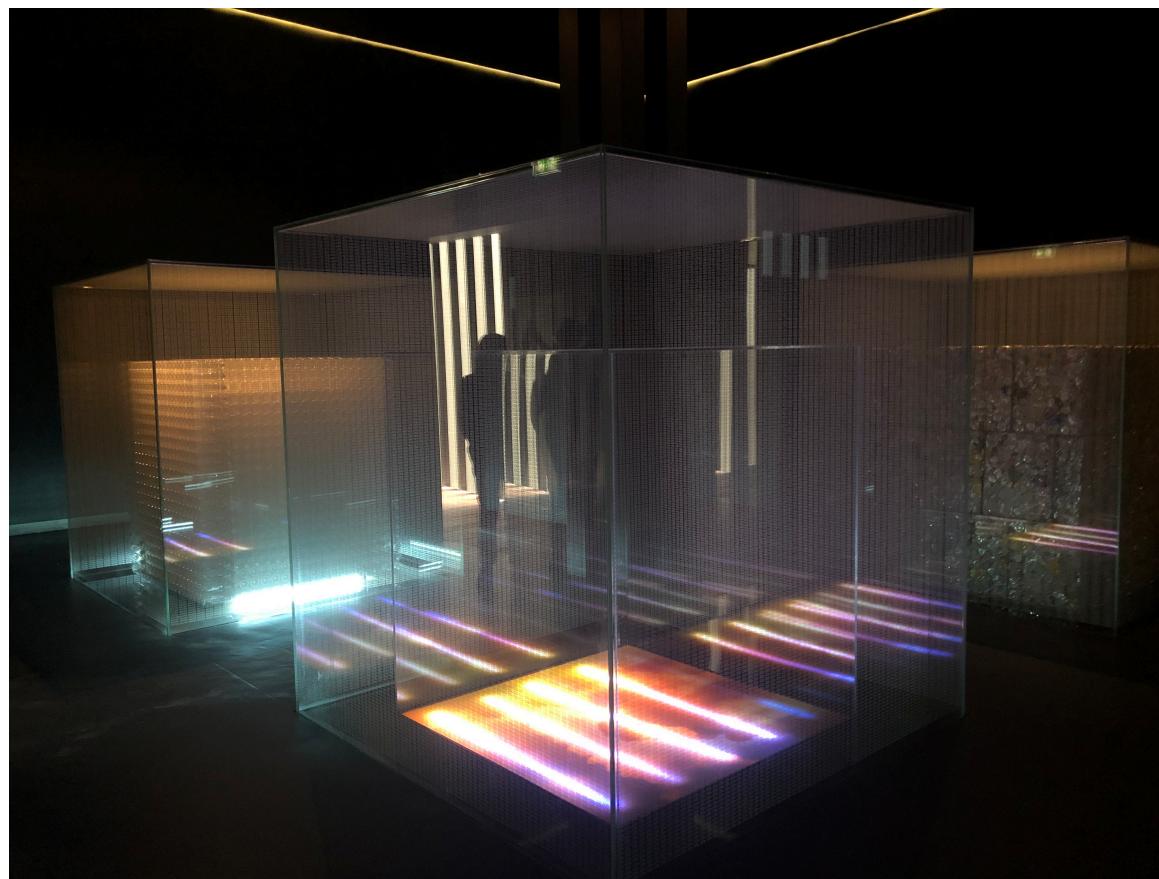


Learning from fiction in business studies?

- *The Anthropocene as an undeniable context*
 - See, define, understand
- *Fiction as a tool for a better future?*
 - Science fiction and Cli-Fi
 - NYC as one of the first victims ?
- *Odds for tomorrow*
 - First research results and perspectives



The Antropocene



Tadao Ando

Four cubes to contemplate our environment (2008-2011)

Château Lacoste, Le Puy Sainte Réparade, France



The Anthropocene

WHAT?

- A **proposition** (Crutzen, 2002)
- To give a new name to current **geological era** (Holocene)
- To illustrate that Human weight so much on Nature that they have **modified** cycles, equilibrium... the **whole system**



The Anthropocene

SUMMER 2021



Belgium and Germany



USA & Canada



California, Turkey, Siberia, Greece, Italy, Australia...



Austral Africa



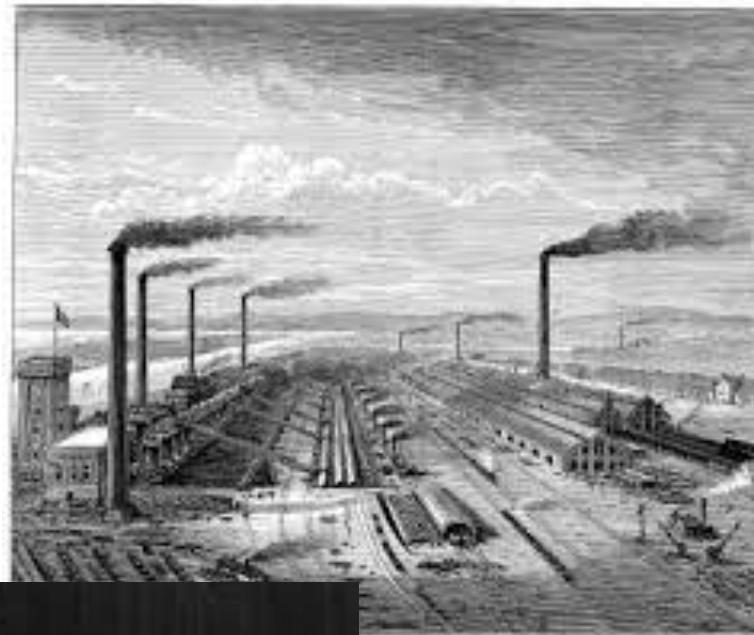
France



The Anthropocene

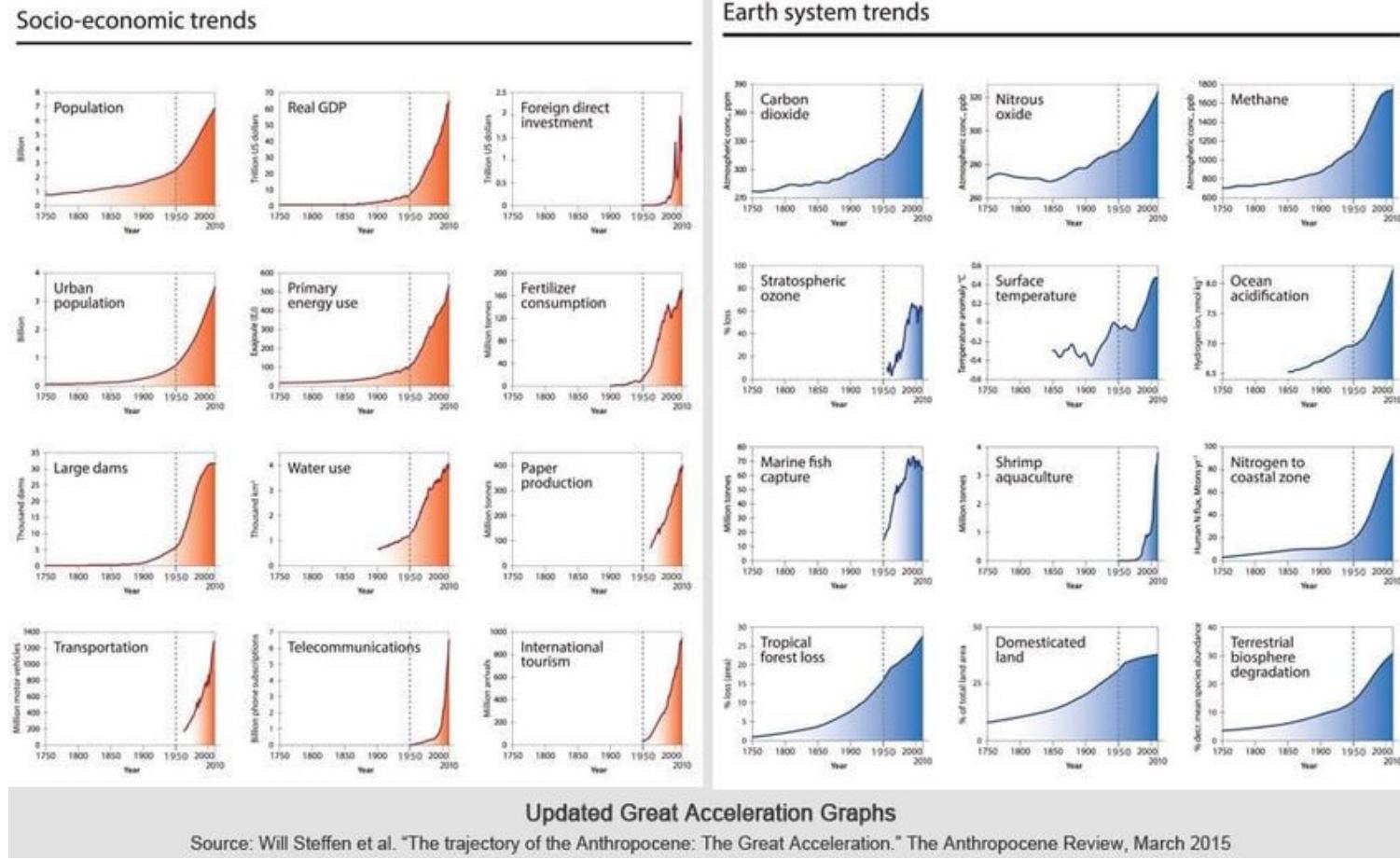
WHEN?

- 1850 ? Industrial revolution
- 1945 ? Atomic bomb



The Anthropocene

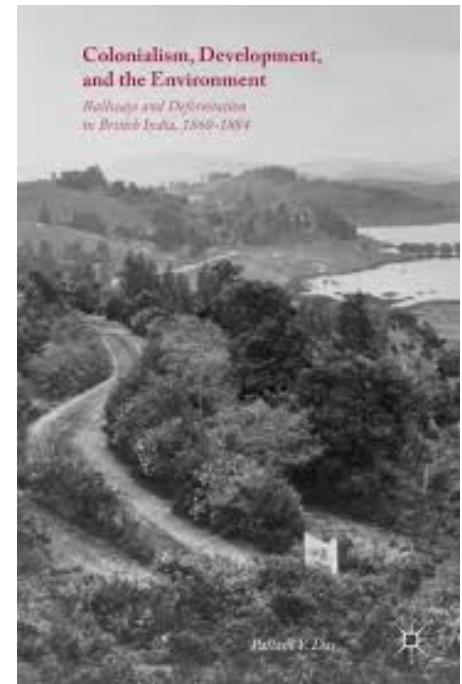
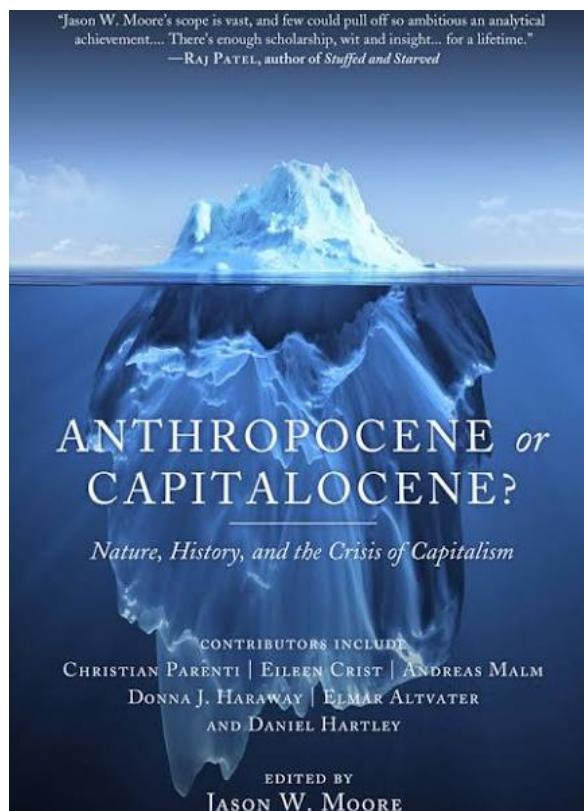
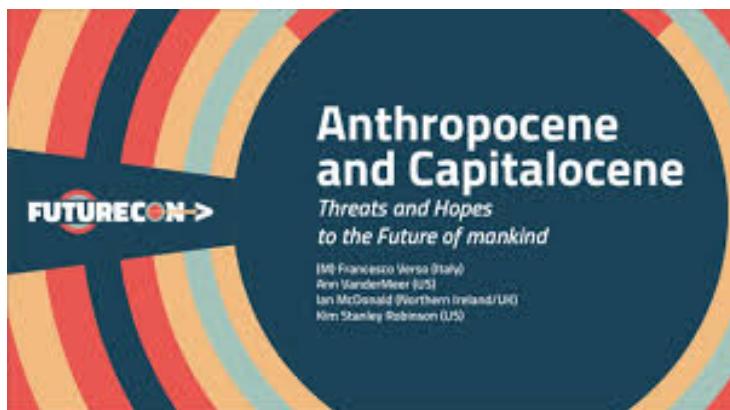
HOW?



The Anthropocene

WHO?

- Not every man but some of them...
(oliganthropocene, Eryk Swyngedou)
- **CAPITALOCENE**
- **ENVIRONMENTAL COLONIALISM**



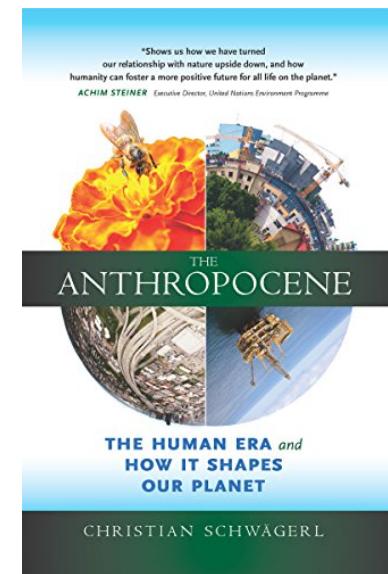
The Anthropocene

AND THEN?

- We cannot **differentiate** anymore **earth history** from **human behaviour** (Larrère, 2021)

→ End of nature/culture dichotomy

→ A call for more and more transdisciplinary science?



The Anthropocene

AND THEN?

- Different answers and behaviours emerge:
 - Keeping on with previsions and control
 - Trying to transform our way of life

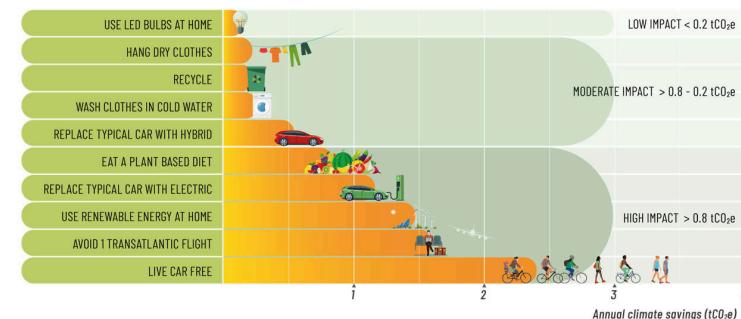


**UN CLIMATE
CHANGE
CONFERENCE
UK 2021**

IN PARTNERSHIP WITH ITALY



PERSONAL CHOICES TO REDUCE YOUR CONTRIBUTION TO CLIMATE CHANGE
Average values for developed countries based on current emissions.



This graph was developed by GreenFaith and is adapted from Wynes and Nicholas, 2017, Environmental Research Letters.



The Anthropocene

WHAT ABOUT BUSINESS?

- From the main cause...

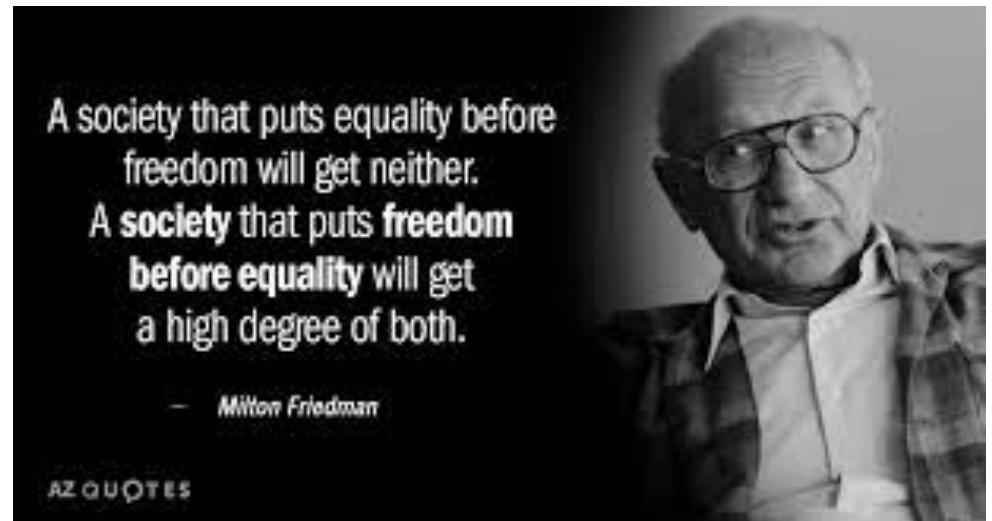
« Natural resources are infinite and inexhaustible, because, without this property, we would not get them for free. As they cannot be multiplied, renewed nor exhausted, they are not an issue for economics »

J-B Say, 1804, traité d'économie politique

A society that puts equality before freedom will get neither.
A **society** that puts **freedom before equality** will get a high degree of both.

— Milton Friedman

AZ QUOTES



The Anthropocene

WHAT ABOUT BUSINESS?

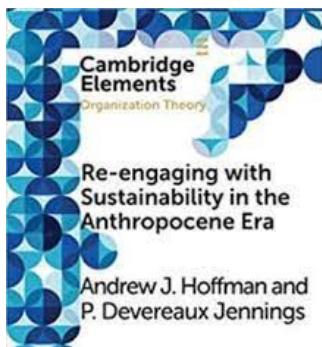
- From the main cause...
- To the power of innovations?



This company meets the highest standards of social and environmental impact



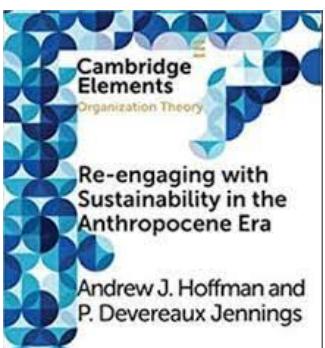
The Anthropocene



	FOUR ARCHETYPES			
	Collapsing systems	Market Rules	Technology Fix	Cultural Re-enlightenment
Organizational fields		Fields are market oriented and often divided by new vs old economy		
Institution and logic		Strong new national and transnational trade institutions linking market to environmental remediation and adaptation		
Disruptive events		Events are framed as market opportunities		
Institutional entrepreneurs		Market entrepreneurs, environmental entrepreneurship		



The Anthropocene



ARCHETYPES?

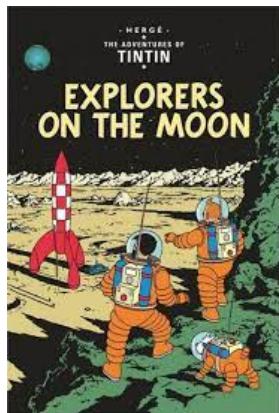
- An ideal form depiction of a social unit's values and actions. They allow for the meaning (intended or not) of the group to be understood. (Weber, 1949)
- A set of structures and systems that consistently embodies a single interpretative scheme (Greenwood and Hinings, 1993)
- The four archetypes proposed here represent a spectrum of possibilities structured from collapse through transitional phases to renewal



The use of fiction



Star Trek, Gene Roddenberry, 1966



Tintin Objectif Lune, Hergé, 1953



Minority Report, Steven Spielberg, 2002



The use of fiction

WHY?

To call for the possibilities of imagination

→ Fiction allows **alternative readings** of reality that can renew academic and managerial practices (Grimand, 2009).



To harness the power of science-fiction

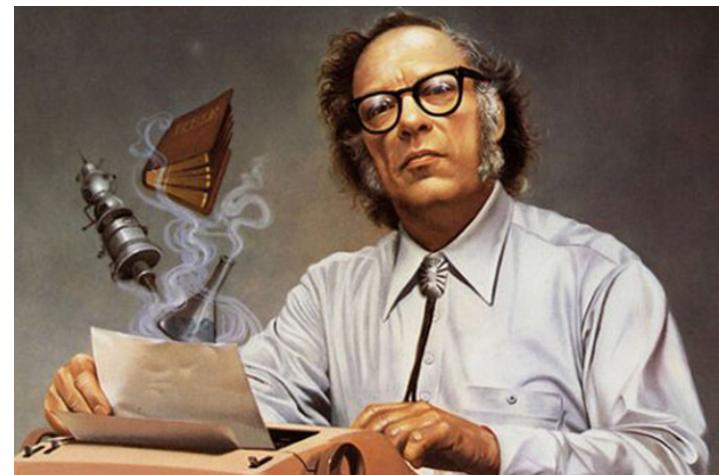
- Science fiction, because it is not attached to social reality, it allows us to think in depth (Roberts, 2000) about the mechanisms **of what is and what could be**.
- Collapsology fictions **show the logics at work** by developing the ambition that **evoking possible futures allows us to act on the present** by creating a form of 'tragic consciousness' (Engélibert, 2020).



The use of science-fiction

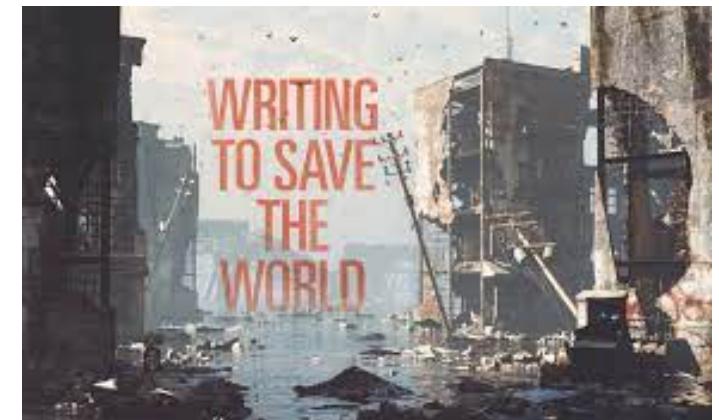
Individual science fiction stories may seem as trivial as ever to the blinder critics and philosophers of today, but the core of science fiction -- its essence -- has become crucial to our salvation, if we are to be saved at all.

Isaac Asimov



The use of science-fiction

- On the **epistemic level**, in science fiction it is not the truth that counts but the importance of method, of coherence which allows the "suspension of disbelief".
→ Partially rational imagination = a powerful tool to explore reality
- In terms of the **objective of knowledge**, SF is in a position to question what is taken for granted. It starts from the **novum**, a novelty anchored in a discourse of possibilities.
→ Through the sense of wonder, it underlines the possibility of seeing the world differently
- In terms of **context**, SF authors define it as part of a culture undergoing strong changes related to production and replacements of techno-industrial modes of distribution / consumption and waste management (Broderick, 1995).
→ Its existence has never been so appropriate...



JARGON WATCH

cli-fi

n. /'kli-'fi/

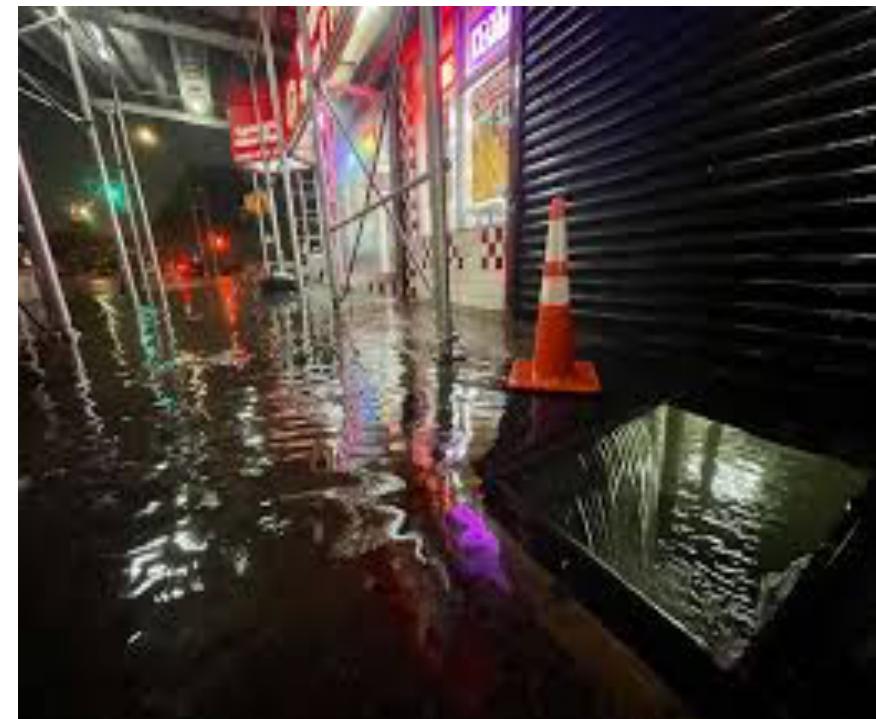
Climate fiction. A subgenre of dystopian fiction set in the near future, in which climate change wreaks havoc on an otherwise familiar planet, cli-fi has attracted literary authors like Ian McEwan and Barbara Kingsolver.



New-York City



New-York City



... to reality

From fiction...



New-York City

Table 1.1: Summary of water-related climate changes and impacts in New York City throughout the 21st century	
	Rising sea levels
	Increased flooding
	More frequent and intense storm events
	Increased annual precipitation
	Increased saltwater intrusion
	Increased erosion
	Water supply challenges due to increased droughts

● Highly likely ● Likely ● Possible

Source: NRDC

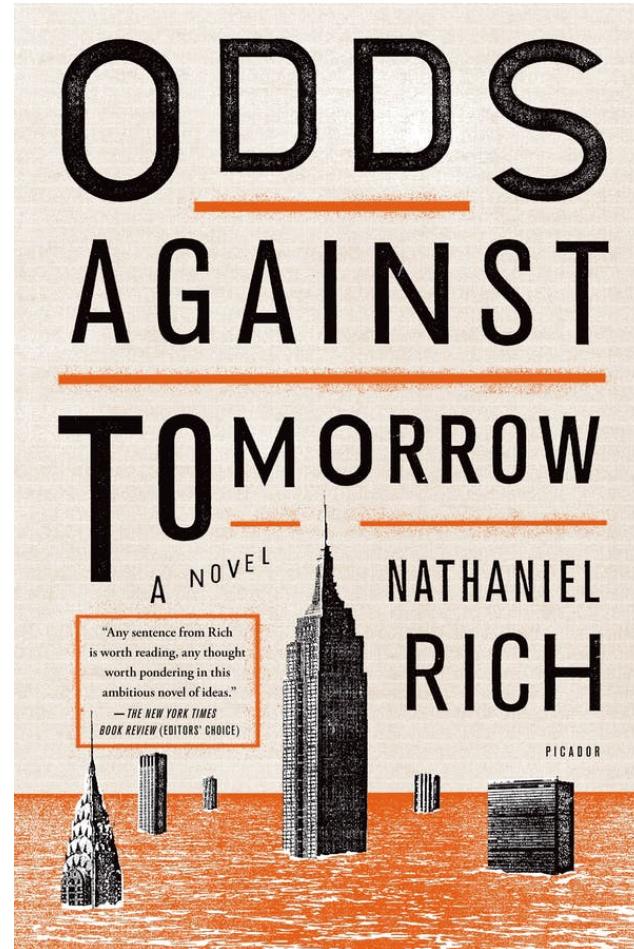
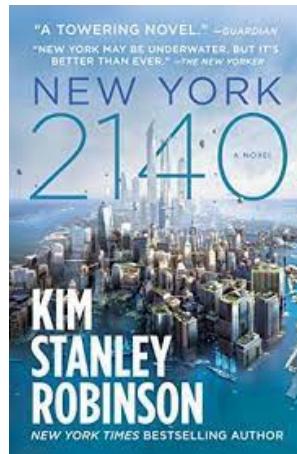
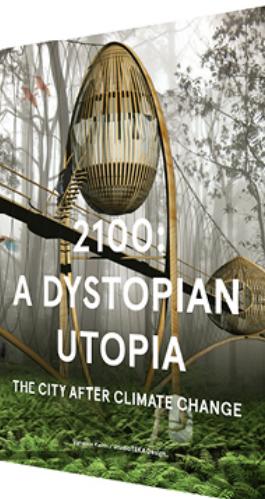
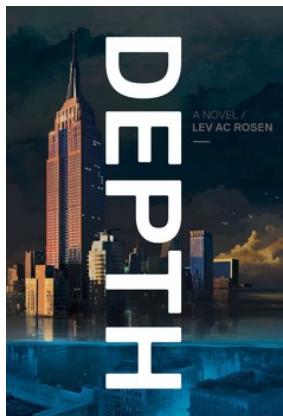
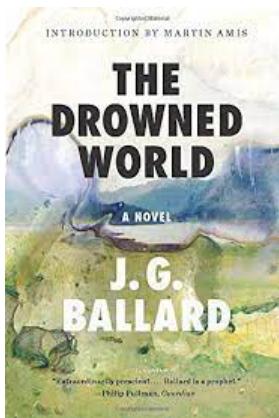
HIGH VULNERABILITY

- Rise of the sea level in NYC port, 44 cm since 1900
- Intensity of hurricanes
- Accommodation in illegal basements
- Soil artificialisation
- Land reclaimed from the sea (Hoboken, NJ..), destruction of wetlands
- Ageing installations

A. Garner, a climate scientist at Rowan University, said that flooding in New York City “has already become more frequent than in the past, and as long as we continue to warm the planet, we can expect more of this, not less”.



New-York City



Odds for tomorrow

	COLLAPSOLOGY	BUSINESS AS USUAL	TECHNOLOGY FIX	CULTURAL RE-ENLIGHTMENT
Perception of environmental challenges				
Vision of present times	V p149: The Georges Washington Bridge, thronged with cars and stragglers walking with their heads bent under the punishing rain, rocked gently from side to side, a cradle over the			
Main human behaviour	churning abyss of the Hudson River			
Justification		V p152: Every business needs a bank, a law firm, an insurance company, an advertising firm. I think they're going to		
Regulation		realize soon that they also need a Future consultant. Not just to protect them from lawsuits, but to protect		
Risk		'them from. well. this!' (storm)		
Powerful organizations				
Counterpowers				
Faith in science/technology				
Human-Nature relation				
Vision of future times				



Odds for tomorrow

DESIGN OF OUR FIRST PAPER

Fictional situation

→ Hoffman years from today reads “odds for tomorrow” and compares it with his past research work...

Creative writings

→ We rewrite the whole story according to the four theoretical archetypes to show the methodological process

Back to business studies

→ We draw conclusions about the learning that this diversions through fiction allows



Odds for tomorrow

FIRST RESULTS

Archetypes are embodied

- Relevance of using fiction **to decipher collective action and the reactions of social groups to Anthropocene**

We complement Hoffman's theory

- showing the **interfaces** between the archetypes
- insisting on the **psychological dimension** that makes archetypes more performative by allowing **identification**
- confirming the implicit hierarchy of archetypes

We open up new avenues of research

- Fiction reveals the **limits of the cultural re-enlightenment** vision
- Fiction highlights the **determinant character of the law**



Odds for tomorrow

AND NOW?

A cli-fi novel could also be utopian, and present an optimistic and hopeful future for the readers.

Dan Bloom
Journalist

Cli-fi can act as prose for science. And on the topic of mitigating climate change, there is no such thing as too much prose.

Sarah Perkins-Kirkpatrick
Research Fellow, UNSW

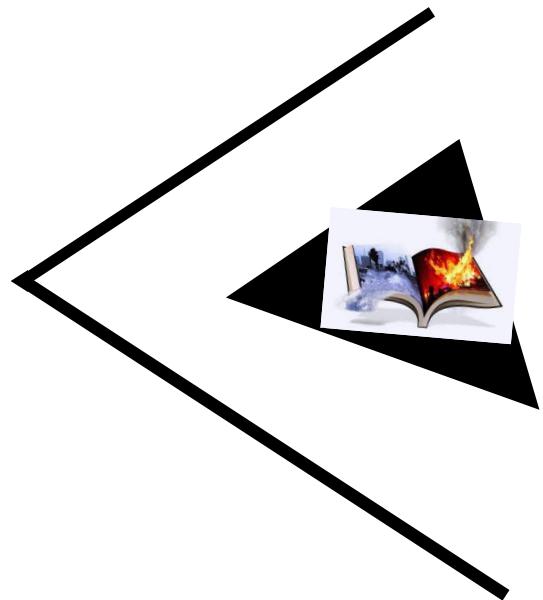
- From science-fiction to design fiction
- From dystopia to utopia via Ustopia
- From research to classes
- From a business studies team to a multidisciplinary one



Ustopia is a world I made up by combining utopia and dystopia – the imagined perfect society and its opposite – because, in my view, each contains a latent version of the other

Margaret Atwood
Author





If we want to create a better future, we need to start with better dreams – infectious, inclusive, optimistic dreams are the vital first step to catalyzing real change of the world.

Hieroglyph: Stories and Vision for a better future,
2014, *Ed Finn & Kathryn Cramer*,
Center for Science and the Imagination
Arizona State University, 560 p.