SciencesPo

Science and Society, 2021

A Politics of Things

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Rethinking the relations between techniques and society

2.1 // Stakes of a social study of techniques

2.2 // From social impact to technological determinism

2.3 // The social construction of technology : a non-linear model

2.4 // Beyond the technique/society dichotomy : a symmetrical anthropology

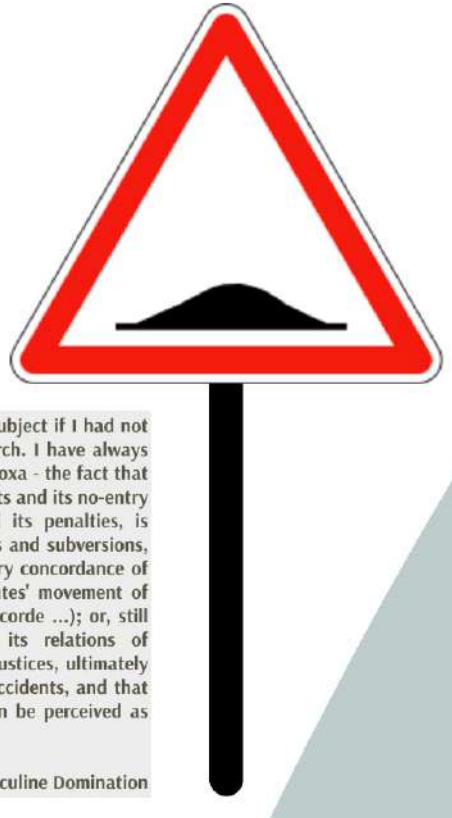
2.1 //

Technical objects are black boxes

Let us first clarify what this intellectualist rationalization, created by science and by scientifically oriented technology, means practically.

Does it mean that we, today, for instance, everyone sitting in this hall, have a greater knowledge of the conditions of life under which we exist than has an American Indian or a Hottentot? Hardly. Unless he is a physicist, one who rides on the streetcar has no idea how the car happened to get into motion. And he does not need to know. He is satisfied that he may 'count' on the behavior of the streetcar, and he orients his conduct according to this expectation; but he knows nothing about what it takes to produce such a car so that it can move. The savage knows incomparably more about his tools.

Max Weber, Science as a Vocation



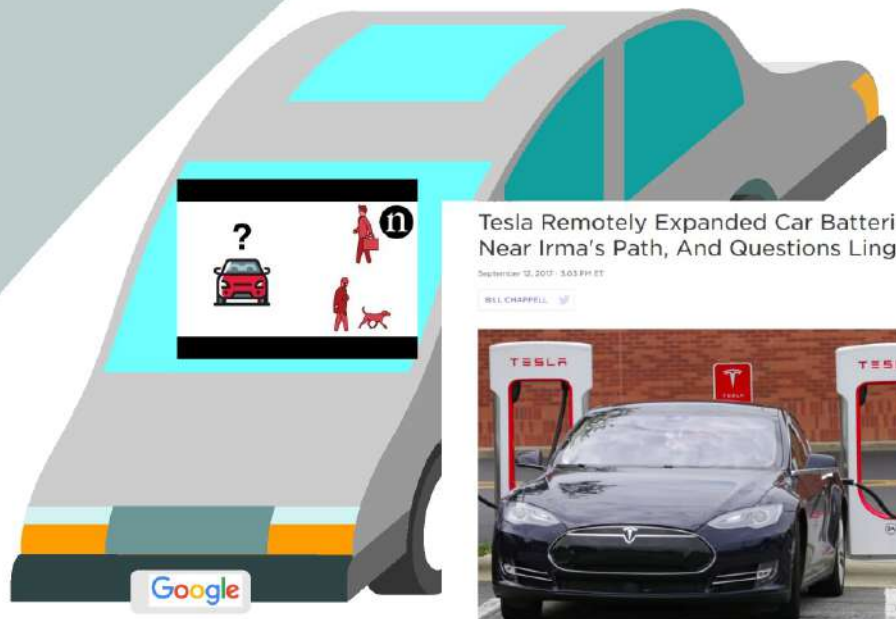
are not neutral

I would probably not have embarked on such a difficult subject if I had not been compelled to do so by the whole logic of my research. I have always been astonished by what might be called the paradox of doxa - the fact that the order of the world as we find it, with its one-way streets and its no-entry signs, whether literal or figurative, its obligations and its penalties, is broadly respected; that there are not more transgressions and subversions, contraventions and 'follies' (just think of the extraordinary concordance of thousands of dispositions - or wills implied in five minutes' movement of traffic around the Place de la Bastille or Place de la Concorde ...); or, still more surprisingly, that the established order, with its relations of domination, its rights and prerogatives, privileges and injustices, ultimately perpetuates itself so easily, apart from a few historical accidents, and that the most intolerable conditions of existence can so often be perceived as acceptable and even natural.

Pierre Bourdieu, Masculine Domination

2.1 //

Incidents and controversies re-open black boxes



Tesla Remotely Expanded Car Batteries Near Irma's Path, And Questions Linger

September 12, 2017 · 3:03 PM ET

BILL CHAPPELL

Tesla owners who were in Hurricane Irma's path recently got a temporary battery upgrade during the massive evacuation.

Tesla owners who were in Hurricane Irma's path in the Southeast recently got an unexpected boost to help them, after the carmaker remotely upgraded vehicle batteries to their highest capacity.

The boost gave customers' cars an extra 30 to 40 miles, but it's also temporary: The batteries will lose their extra juice this weekend.

The move came at the request of a customer who was worried about traffic and the range between charging stations during a massive evacuation that saw millions of Americans leave

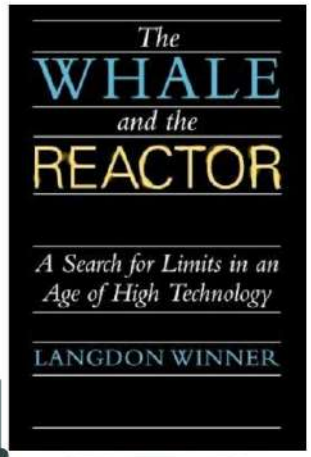
THE SIMPLE ANSWERS TO THE QUESTIONS THAT GET ASKED ABOUT EVERY NEW TECHNOLOGY:

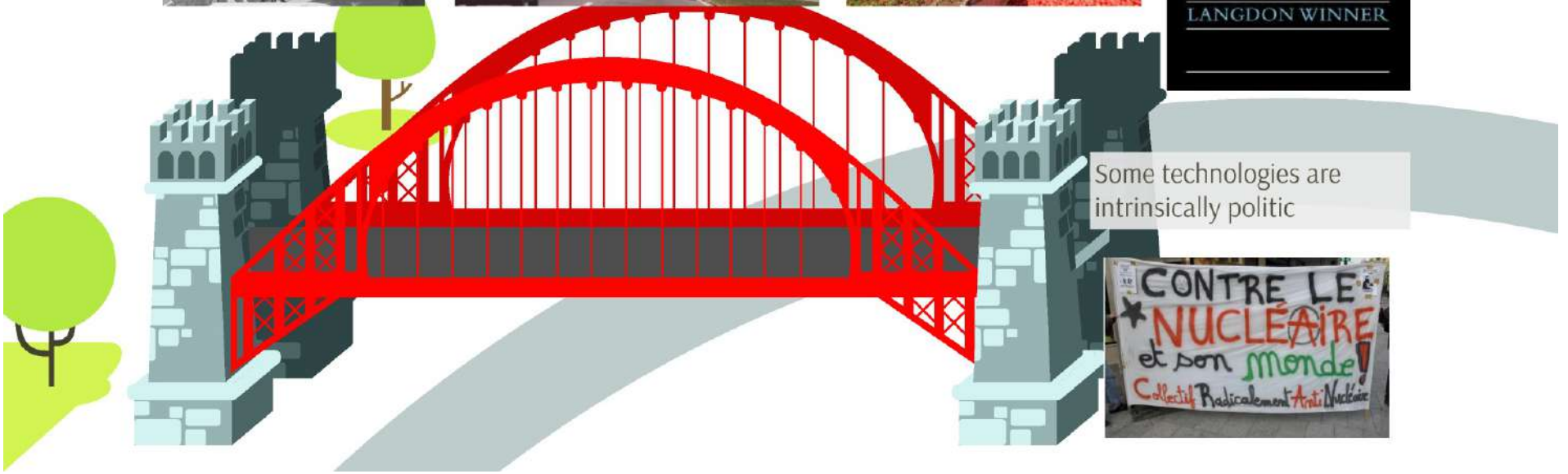
WILL [ ] MAKE US ALL GENIUSES?	NO
WILL [ ] MAKE US ALL MORONS?	NO
WILL [ ] DESTROY WHOLE INDUSTRIES?	YES
WILL [ ] MAKE US MORE EMPATHETIC?	NO
WILL [ ] MAKE US LESS CARING?	NO
WILL TEENS USE [ ] FOR SEX?	YES
WERE THEY GOING TO HAVE SEX ANYWAY?	YES
WILL [ ] DESTROY MUSIC?	NO
WILL [ ] DESTROY ART?	NO
BUT CAN'T WE GO BACK TO A TIME WHEN—	NO
WILL [ ] BRING ABOUT WORLD PEACE?	NO
WILL [ ] CAUSE WIDESPREAD ALIENATION BY CREATING A WORLD OF EMPTY EXPERIENCES?	WE WERE ALREADY ALIENATED

from xkcd.com

2.2 // From social impact to technological determinism

"Artifacts have politics": in their *design* willingly or not

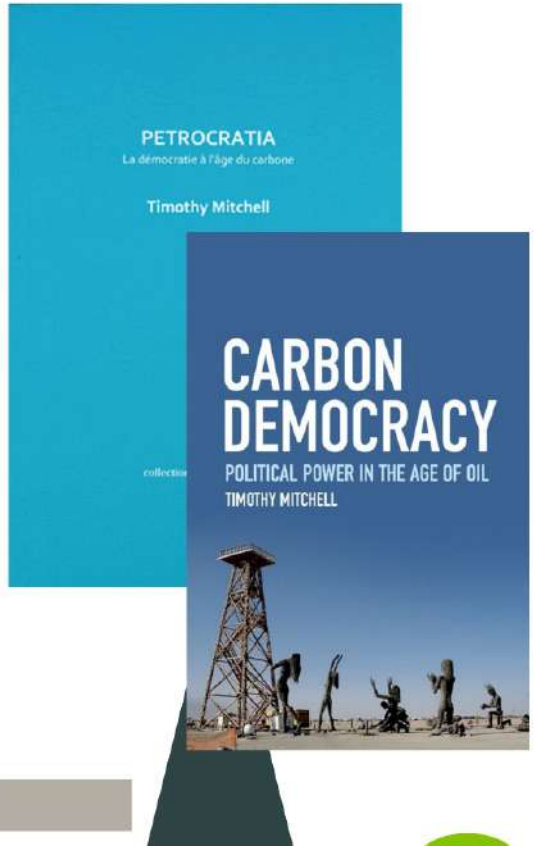


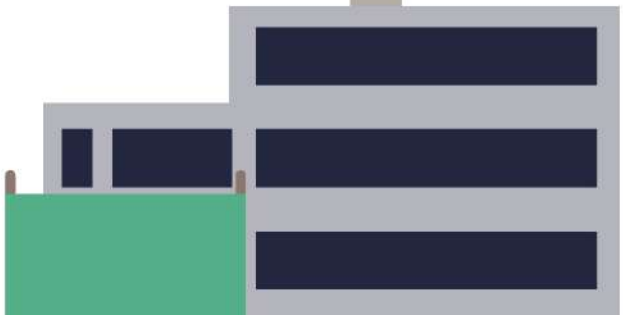


Some technologies are intrinsically politic

Technological determinism

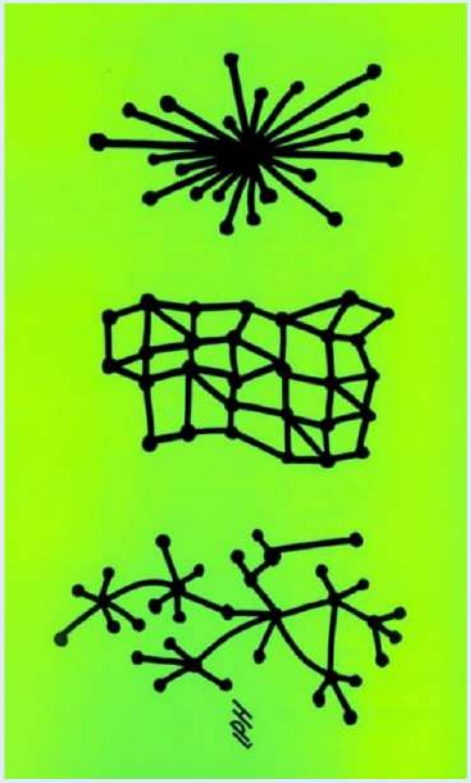
2.2 //

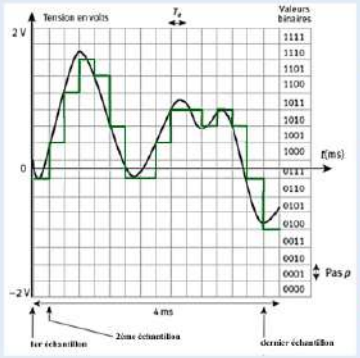


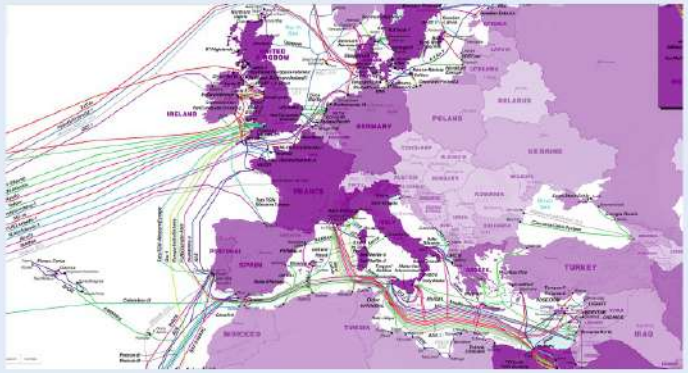


The Internet, a deterministic infrastructure?

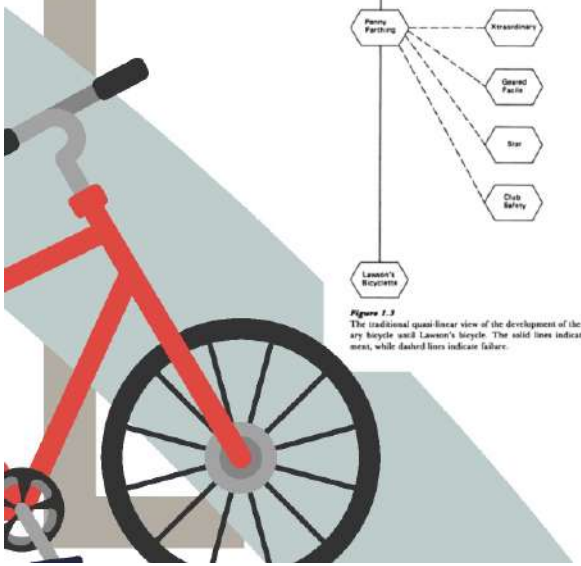
2.3 /







Social construction of technologies: a non-linear model



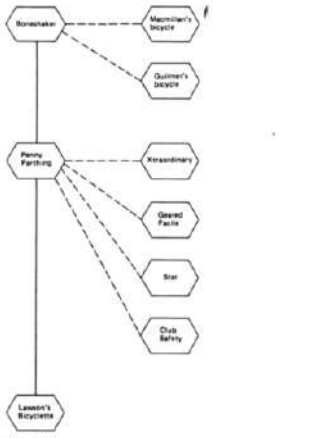


Figure 1.3
The traditional quasi-linear view of the development of the high-wheeled Ordinary bicycle until Lawson's bicycle. The solid lines indicate successful development, while dashed lines indicate failure.

A non-linear representation of
- artifacts
- concerned social groups
- problems
- solutions

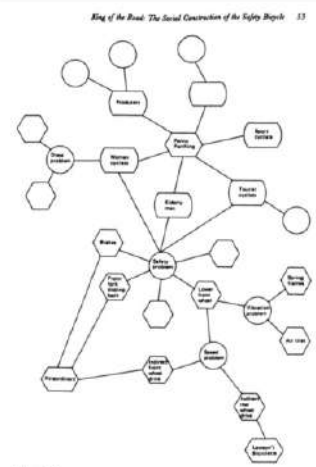
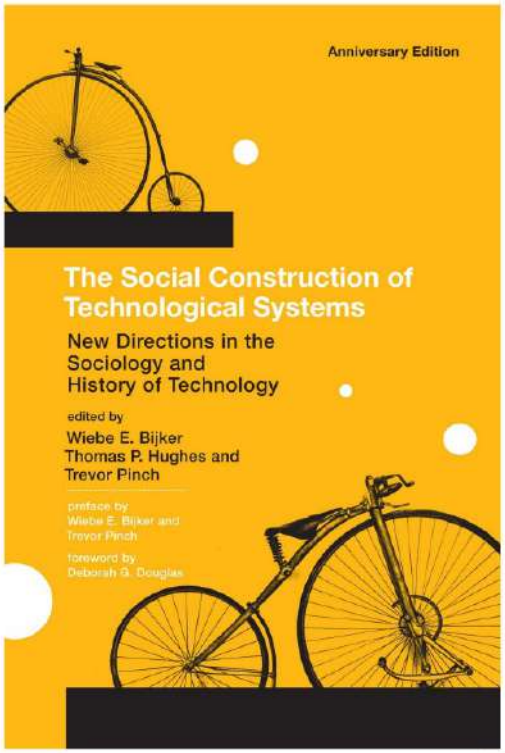
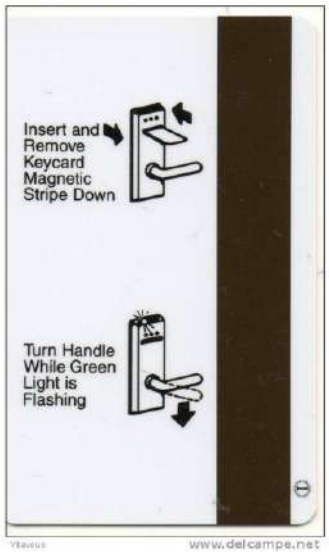


Figure 2.13
Three levels of evolutionary processes may be compiled by superposing figures such as 2.10, 2.11, and 2.12, once figure 1.4



Hotel

2.4 // A symmetrical anthropology of techniques



Programme and antiprogrammes

through associations and substitutions

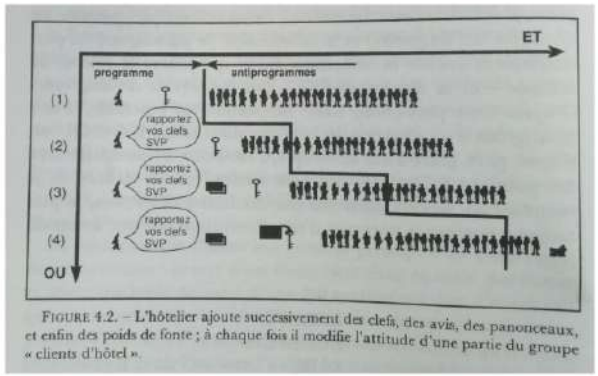
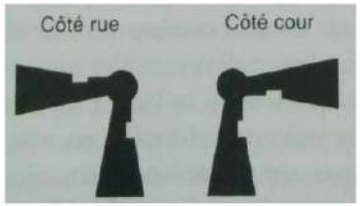
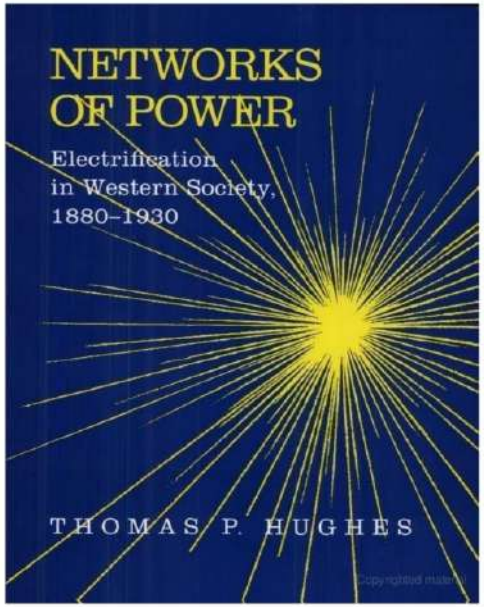


FIGURE 4.2. – L'hôtelier ajoute successivement des clefs, des avis, des panonceaux, et enfin des poids de fonte ; à chaque fois il modifie l'attitude d'une partie du groupe « clients d'hôtel ».



2.4// "Seamless Web", a non-causal model



"The Electrification of America"
by Thomas P. Hughes (1979)

heterogeneous engineering
- gaslighting prices
- copper prices
- Joule's 1st law : P = I^2 x R = IV
- losses = I^2 x length x quality / section of a copper wire
- Ohm's law V = RI

for an efficient lighting at affordable prices, the incandescent lamp designed by Edison is 100 watts, 100 ohms, 1 amp, 100 V

ty, 2021

Sociotechnical perspectives
• Study things, not perceptions
• Describing the stability of our social (political, economical, moral) world cannot be done without technical objects
• There is no dichotomy between social and technical perspectives. Within a controversy, we can often identify diverging sociotechnical configurations

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