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From Technoscience Studies to Technoethics: When, Why and How?

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what, when, why, and how?

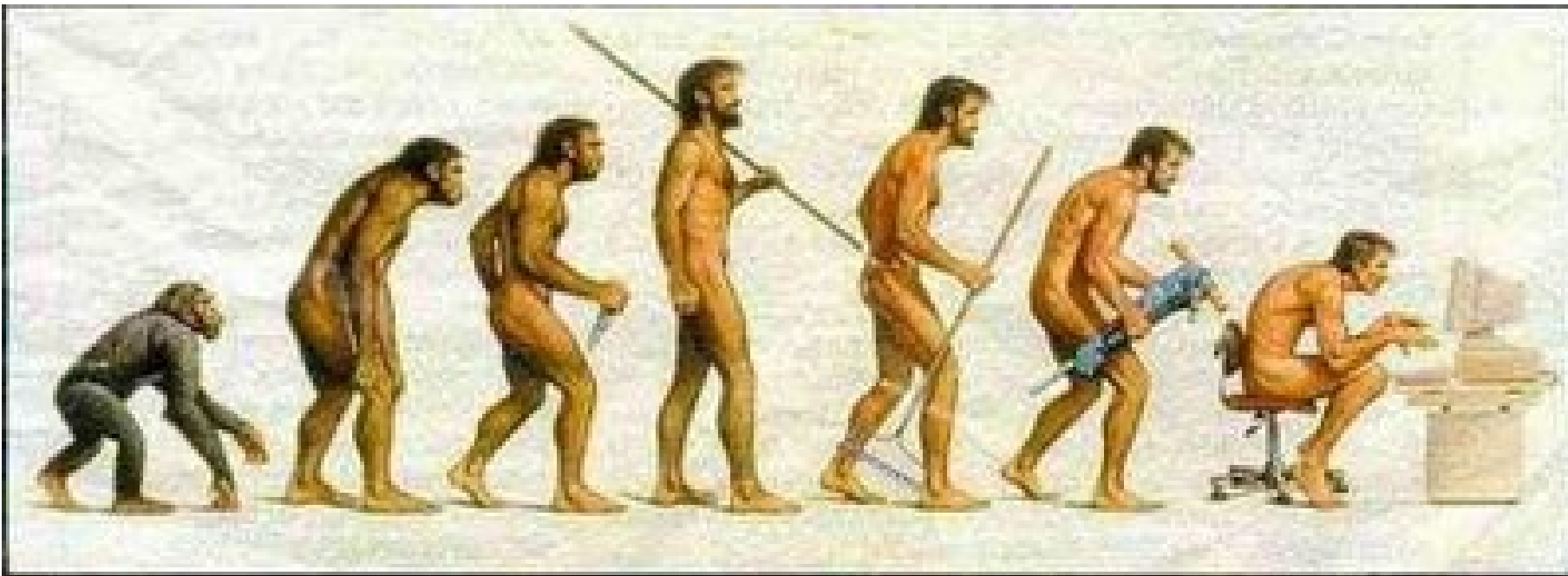
► What?

- philosophy (of technology)
- technoethics
- sustainability



► When?

- technoethics is emerging *right now*
- a structural reason: the overwhelming power of technology on personal and collective life
- a contextual reason: the *ethical vacuum* in our global civilization.



► Why?

- technoethics is emerging as a specific discipline:
- descriptive studies of technoscience → public intervention?
- an “ethical technocracy” manages ethics
 - a takeover
 - an ethical quandary
 - unproductive



▶ How?

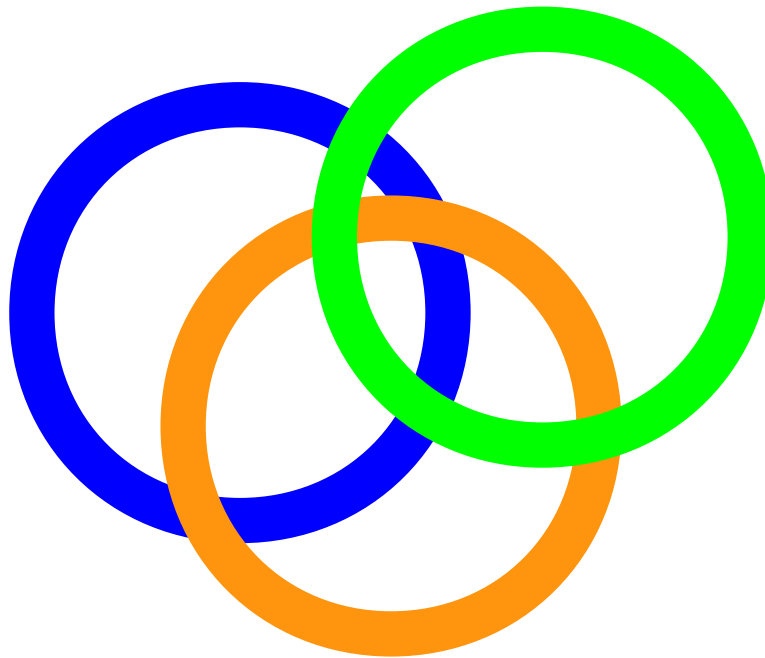
- start anew
- from an inventive combination of
 - the Social Studies of Science
 - the newest approaches in Philosophy of Technology
- reinvention of Applied Ethics
 - genuinely “applied”



technoscience studies and the ethical turn

► my research:

- intersection between three relatively independent disciplines

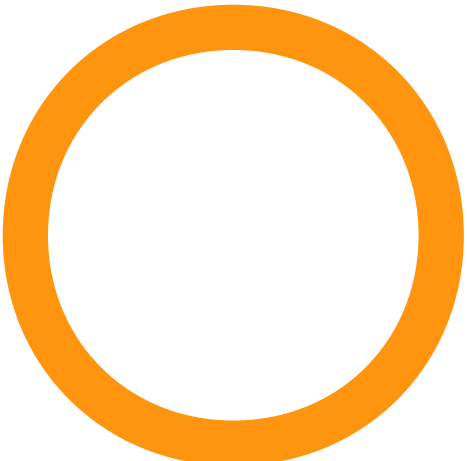


- a specific approach from each one:

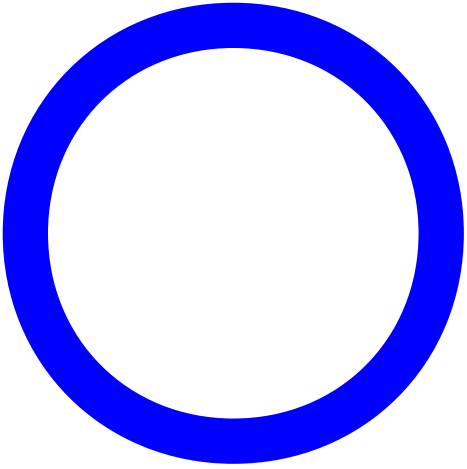
▶ (1) Science Studies:

- not only the social studies of science
- but also non-positivist philosophy of science
 - Ian Hacking
 - Larry Laudan
 - ...
- and not much institutional sociology



- 
- ▶ (2) Philosophy of Technology:
 - not the European/technophobic way
 - but the US/constructive approach
 - Albert Borgmann, Don Ihde, and Carl Mitcham for instance





▶ (3) Applied Ethics:

- not the scholastic (“analytic”) concept
- but really *applied*,
 - a direct relationship to human actions, to the personal *ethos*
 - factual, usual, and deliberate ways of acting

- ▶ technoethics can encompass the *ethical turn* in modernity as a whole
 - not a specialized field ethic
 - technology today:
 - not an *environment*
 - but an *ethos*,
 - = a way of life and a frame of reference for personal values
 - ⇒ requires an *ethical* approach.



- ▶ the term “technoethics” was coined in the 1970s
 - (Bunge 1977, Luppicini 2008)
 - stress on engineers and designers of technology
 - an extrinsic moral regulation of technological progress

- ▶ reinvented technoethics
 - will be on the side of the *user* of technology
 - will aim at an *intrinsic* valuation system

inputs and beyond

- ▶ what are the most important theoretical inputs for technoethics and how can technoethics take advantage of them?



► (1) From Science Studies: technoscience

- the very idea of technoscience
- its consequences on the *status* of science and technology
 - STS: that technology does not impartially provides us with the fallout of an autonomous and intensely progressive rational description of the world...
- the ethical challenge for technoscience:
- the determination of ends in the realm of means.
 - not only the search for limits in the practical applications of an ever-growing pure knowledge.
 - philosophers of modernity, from John Dewey to Richard Rorty → what are our projects and our hopes?
 - Larry Laudan on the aims of science (Laudan 1984)

- ▶ (1) From Science Studies: contexts
 - Social Studies of Science have contextualized *science in the making*.
 - technoscience is even more contextualized
 - today, it is investigated
 - not only as *born in context*
 - but also as *context-creating*,
 - = a pervasive background social actor
 - → technoscience is an *ethically non-neutral context-creating activity*

▶ (1) From Science Studies: the STS-fabric

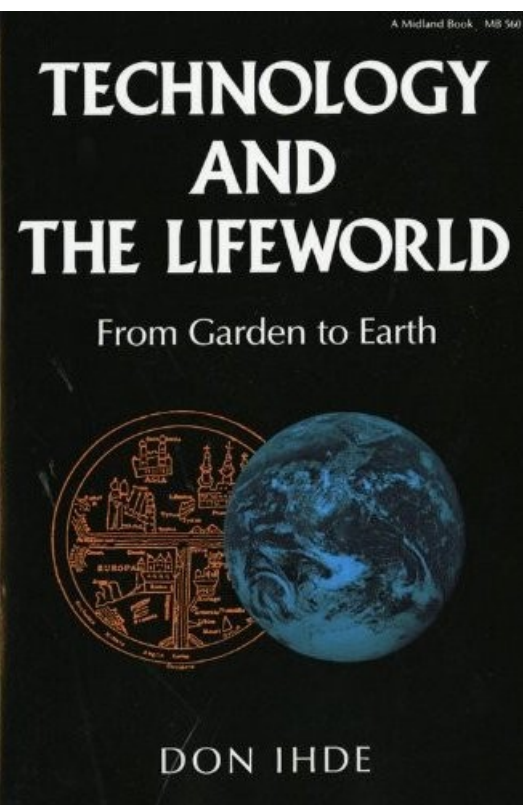
- *negotiation* and renegotiation processes
 - most of them informal
 - between society and technoscience
 - between science, technology and society (STS).
- → more than a web:
- *a fabric*
- constantly woven and rewoven
 - by a large range of actors
 - from institutions to individual behaviors
- → *continuity of the STS-fabric*
 - a major input to start with in the transition to technoethics

► (2) From Philosophy of Technology

- Martin Heidegger: technology is the fundamental anthropological and ontological feature of modernity
- a mystical way of escaping it...?
- a rational and sensitive way of coping, instead

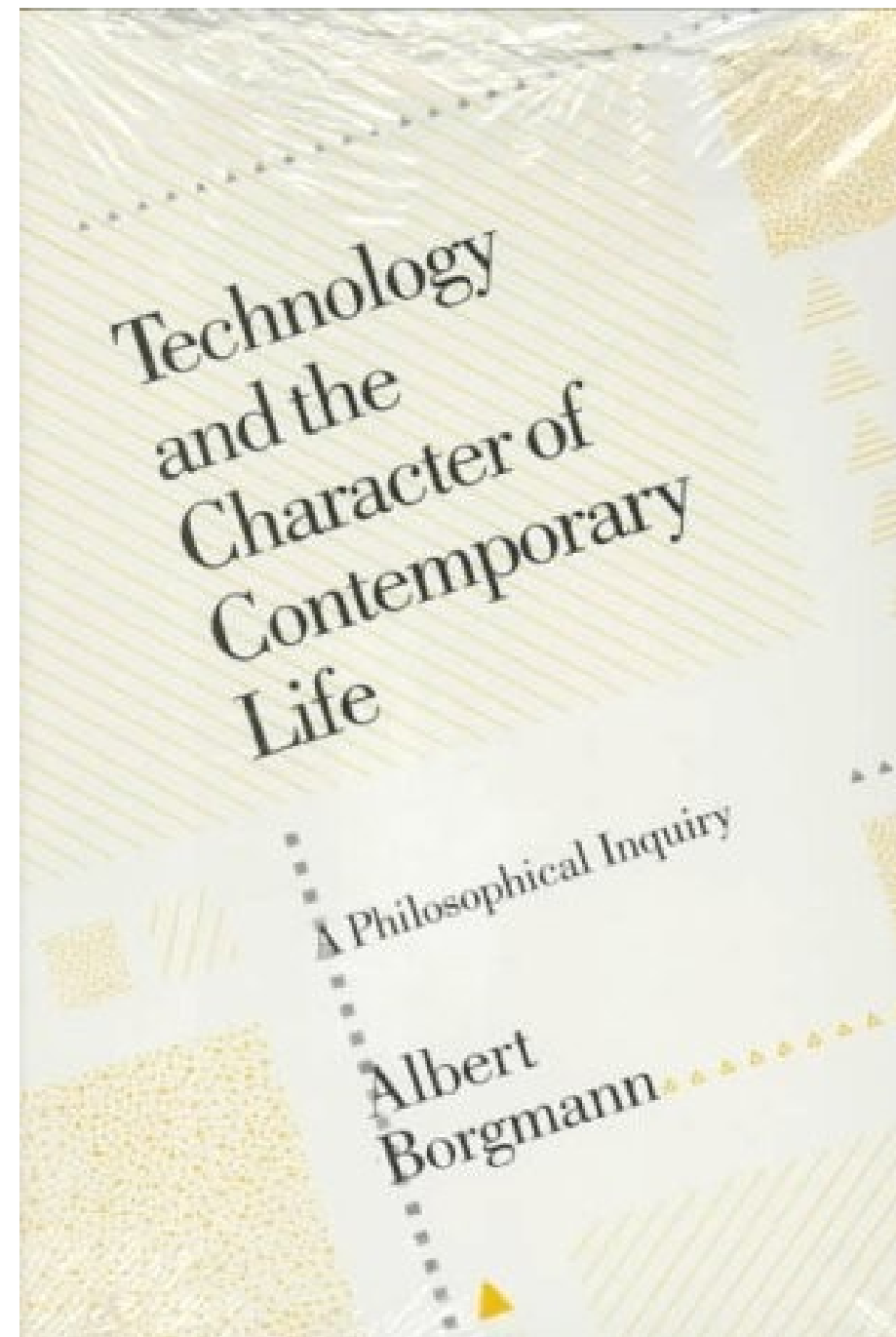


- ▶ (2) From Philosophy of Technology
 - Don Ihde's phenomenological analyses of the human experience with technology
 - a corpus of methods and case studies for technoethics
 - a technological *lifeworld* in which technoethics make sense.
 - the *existential texture* of our life
 - which is definitely a technological texture.
 - descriptive and non-foundational phenomenology of technology → the technological ethos in a *non-normative* approach

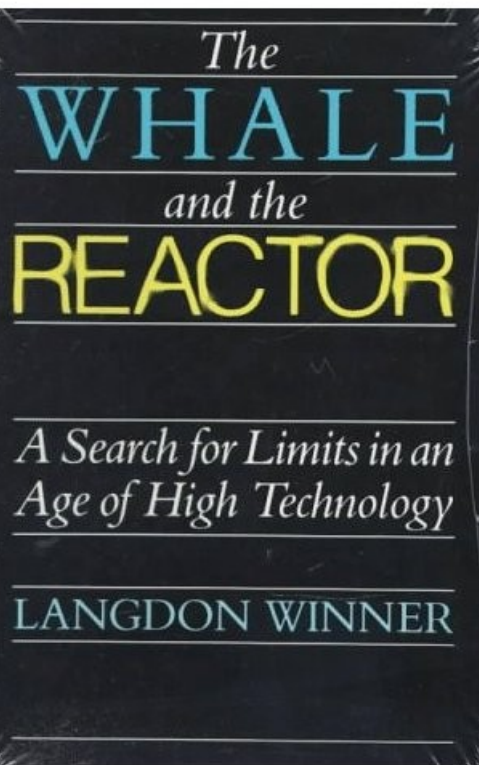


▶ (2) From Philosophy of Technology

- Albert Borgmann's existential approach
- more focused on the ethical pregnancy of artifacts
 - an ethics
 - Heidegger's insights
- “focal objects”
 - with meaning, value, importance
- “devices”
 - bare tools

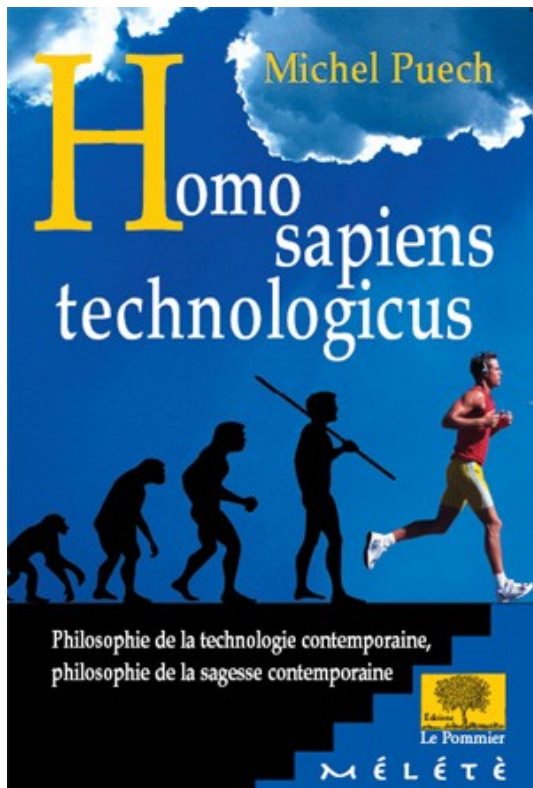


- ▶ (2) From Philosophy of Technology
 - Langdon Winner: not the usual sociological approach of technology in context
 - “technê is politeia”
 - not a flat consequence of the 1960s slogan “everything is political”.
 - the non-neutrality of artifacts is political in a typical way
 - an undercover techno-policy is shaping our commons
 - we must be aware of it
 - a strong two-way correlation between the ethos of the individual and the politics of technology



► (2) From Philosophy of Technology

- the Internet: the new paradigm
- → the importance of end-users' attitudes and perceptions
- → another aspect of non-neutrality:
- *the non-neutrality of micro-actions*
 - (Puech 2008, shameless).
 - Google's or Wikipedia's cornucopia are continuously generated by millions of “clicks” (Bricklin 2000), anonymous micro-actions, for which there is a micro-ethics



▶ (3) From Applied Ethics

- supplementation, stimulation and emulation from contiguous fields:
 - engineering ethics,
 - bioethics,
 - business ethics,
 - environmental ethics
 - ...



challenges

- ▶ what are the most important questions for technoethics?
 - not contrived or hyper-specialized
 - but central and common civilizational issues



▶ (a) sustainability

- can be a real issue and not a media or political hype...
 - if and only if we give the word an acceptable meaning
- a strong ethical meaning: *supported by aware and consistent individuals*
 - sustainable things will also last (durability) and build a better world (justice and improvement), but these are consequences and not the (ethical) essence of the notion
- sustainability questions:
 - not about political or economical acceptability, not even psychological acceptability
 - but questions of ethical acceptability
- the ecological, the economical and the social unsustainable → a large-scope *sustainability ethics*

▶ (b) scientism

- in sustainability and climate change discussions
- scientism = an ideology...
 - irrational, blinding, offering unsound secondary benefits
- ...according to which institutional science...
 - warranted by diploma and rank
- ...is not just one voice in the debate...
 - the most important one on a lot of issues, anyway
- ...but stands out of the debate sphere...
- and speaks as the only representative of (objective) reality

▶ (c) technocracy

- a consequence of scientism ?
 - science unconditional knowledge supports technocracy
unshared power?
- → not a consequence but a cause of scientism
 - manipulation of public opinion in order to maintain the incumbent elite
 - those who know must rule
 - → bureaucratization of technoscience
 - → technocracy ≠ technodemocracy

emergent approaches in technoethics

- some trends in Philosophy of Technology are particularly productive:
 - 1) address not only high-tech and (hype) technological change
 - but also everyday tech, low-tech, the transparent technological substrate of everyday life
 - 2) elucidate the ethical dimension of technology itself,
 - do not rush out for extrinsic sources
- technoethics must emerge from a growing ethical awareness inside technological practices

- ▶ Outline of 3 case studies.
 - just sketches of the kind of problems that technoethics can address
 - an unusual angle



▶ (a) TV ethos

- significance of technology in modern life (Borgmann 1984) = an *ethical* significance of technology (Borgman 1995).
- watching commercial TV is a good case illustrating the ethical significance of technological devices...



- there is an ethos in it
- the ethos of passivity and submission
 - time lost in front of a TV set = an existential loss \Rightarrow must be considered ethically
 - Thoreau: the dangerous man for the government is the man that does not read the newspapers (including “opposition” newspapers) and just doesn't care for the “news” (Thoreau 1863)
 - imagine an ethical non-submission to TV and the consequences of TV
 - star system in every field of human activity, “infotainment” view of events, trivialization of violence, consumption frenzy, soap-opera view of love, propaganda in Chomsky's sense of the term...
 - ... = an ethical reform of the self

▶ (b) biotech-ethos

- Gilbert Hottois: the symbolic aspects involved in organ transplants or artificial organs surgery
- psychoactive and other sorts of drugs
 - among them illegal performance-enhancing drugs for “sport”.
- a choice of ethos:
 - accept to have artificial teeth but not dyed hair
 - accept a pill to stop the headache but not to go to sleep
 - low-tech, but of ethical significance
 - “trans-” or “post-humanism”:
 - enhance our “biological hardware”
 - beyond biological humanity?
 - is it a right, a duty, a risk...?

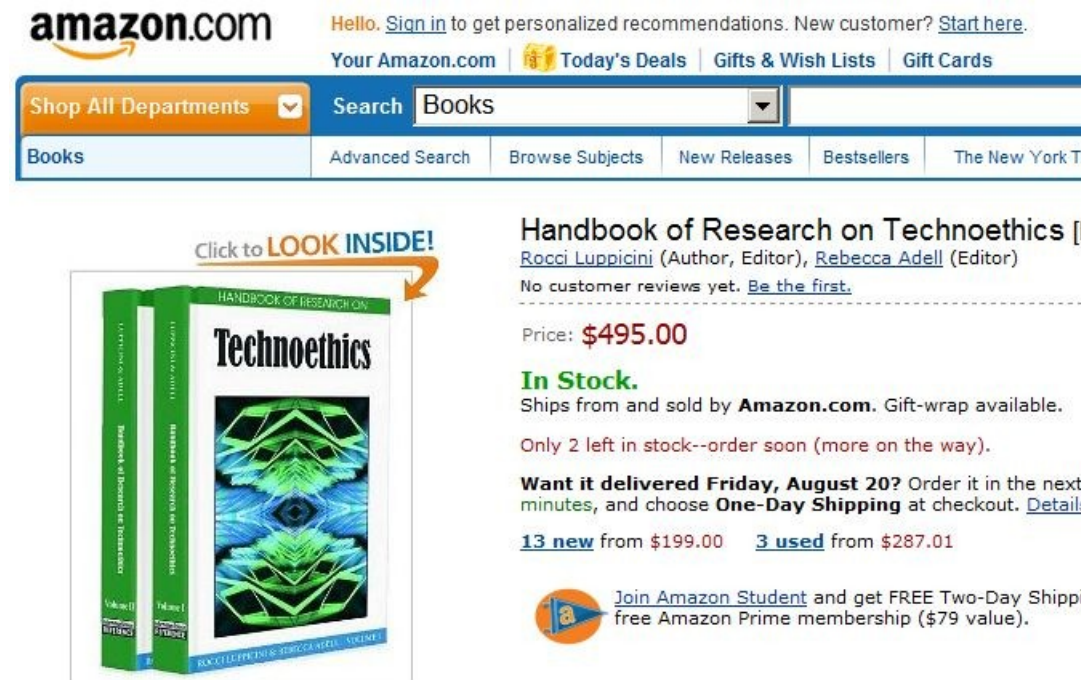


▶ (c) Web piracy

- *hypocrisy!*
- ethical neglect of technological practices
 - the kids are openly downloading “copyrighted material” while their own parents are passing a law against it
 - maybe old conservative politicians are the only non-downloading people left



- Handbook of Technoethics: sold on amazon for... 495\$.
- an ethical problem, a technoethical one
- the 1st (and fundamental) chapter is available for free online, legally (Luppicini 2008 - <http://www.engineering-science-reference.com/downloads/excerpts/7968.pdf>).
- what if someone takes a copy of the book in a library, scans it entirely and makes it available on the Web for the whole community or for a restricted audience (his/her students)?
- technoethics as I see it locates the problem in the initial pricing of the paper book, not in the spreading of intellectual (or artistic) content



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- top-down assessment of technological issues by technical experts: has shown its limits
- top-down assessment by “ethical experts”?



- ▶ how can a critical and bottom-up approach formulate normative and prescriptive content?
- ▶ it cannot,
- ▶ but this non-prescriptive stance is a feature of reinvented technoethics

technoethics and wisdom-ethics of modernity

- what may we watch on TV?
 - ...and how many hours a day?
 - should I take that pill to sleep again normally?
 - when is downloading illegal stuff ethically tenable?
- ▶ a possible technoethics does not intend to answer these questions but it will help to make a decision by oneself
- ... = ethics and not domination by moral rules
 - technoethics is normative concerning methods, prescribing ethical self-reliance, but not concerning content

- ▶ → a wider enterprise, traditionally called *wisdom*
- ▶ deals with ethos
- ▶ a definite behavior: consistent, deliberate, responsible, caring
- ▶ a quest for self-reliance
 - eludes the web of material dependency and symbolic submission that technological affluence leads to

▶ and wisdom is meta-normative too

- it prescribes *meta-attitudes* only:
- awareness, self-reliance, non-violence, care – care of other humans, but also physical and mental self-care, collaborative engagement in micro-collectives, care of the material and immaterial commons
 - inspired by pragmatic philosophies of modernity (James, Dewey)
 - + the personal pragmatic ethics of Emerson and Thoreau
 - + resources in Michel Foucault's “*souci de soi*” (self-care reviving the Stoics)
 - Paul Ricoeur's “person” (the inner process of building oneself as a person)
 - Harry Frankfurt's “importance” (the importance of what we care about)

- ▶ modernity: a realm of means, not the realm of ends contemplated by Kant
- ▶ self-reliant persons in a realm of means:
 - in a perfect position to build themselves as ends
 - and to help others to do the same
 - under the strict condition that they are not bound by submission
- ▶ technoethics at its best:
- ▶ critical understanding of modernity → a program of wisdom and micro-ethics for the Homo Sapiens Technologicus
 - where Sapiens does not mean “stuffed with knowledge” but “wise”.

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