introduction to sociotechnical computer ethics

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ethics: *morality*

computer: *information and communication technology*

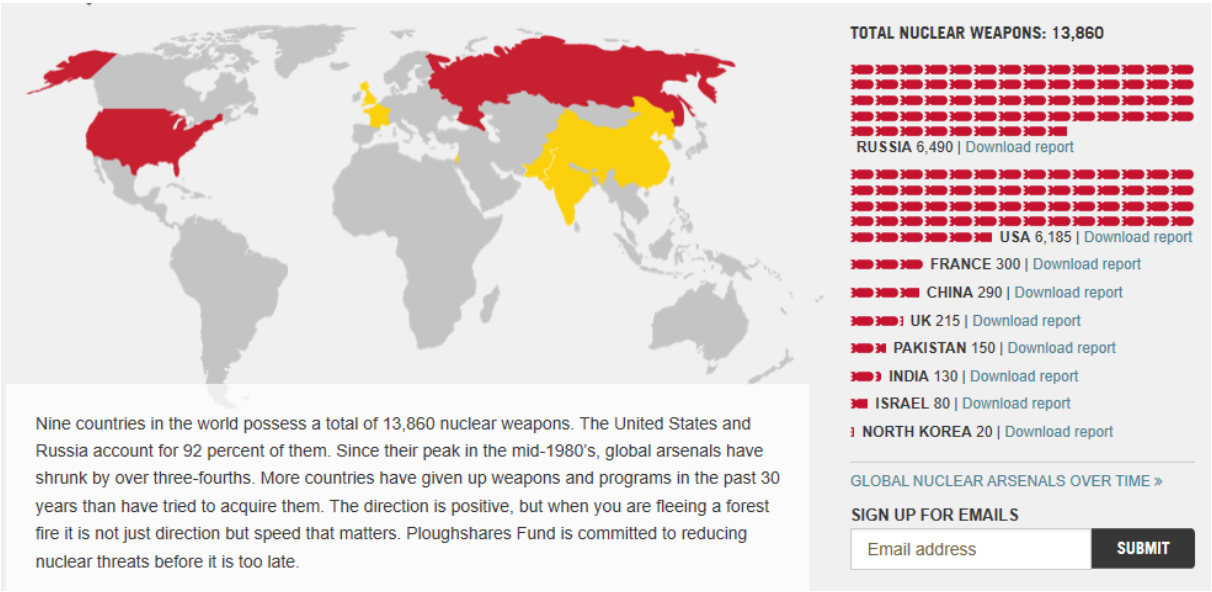
"Guns don't kill people, people kill people."

the traditionalist account

Does IT create new ethical issues that never existed before or is it just new versions of old ethical issues?

1. technology -> complex ethical issues

[*nuclear weapons, genetically modified organisms (GMO), cloning, genetic diseases research, mind-altering technology – still – the science of subjective experience, etc.*] … *this will lead to* <u>*standard account*</u>



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1. **technology -> complex ethical issues** (*nuclear weapons, genetically modified organisms - GMO, cloning, genetic diseases research, mind-altering pharmacology – the science of subjective experience*)

2. **specifically IT ->** more than automobiles, electricity and bridges, more to discuss at the end of course, now a preliminary start … *this will lead to socio-technical systems approach*

the standard account

James Moor, 1985, “What is Computer Ethics?”

computers create new possibilities and opportunities (*community groups, global companies, closing geographical gaps*) (*no possibility before – data mining, proprietary software, child abuse on the web*) (*even more – Second Life, robot caring for the elderly esp. in Japan, artificial robo-medics, intelligent warfare*)

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good & bad come together…

virtual reality –> modeling, simulation, training + escaping real world

robo-caring elderly –> better care + less human contact)

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economic view, politic view, etc. –> important (descriptive approach – how do people behave)

ethical perspective –> **very important** – **normative approach (how should people behave)**

the standard account

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new possibility – vacuum of policies

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computer ethics – filling policy vacuums

(*files -> no privacy concern -> remote access -> a policy vacuum*)

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computer ethics – filling policy vacuums
(*files -> no privacy concern -> remote access -> a policy vacuum*)

filling policy vacuums -> sorting out conceptual muddles
(*copyrights and patent laws, concept: computer program*)

an update to the standard account

change in IT -> science and technological studies (*transplantation -> donation vs. selling?, urine tests at work-> offense on home privacy, sexual preference, race or religion?, genetically modified food?*)

policy vacuum – conceptual muddle -> **new technology ethics**

an update to the standard account

1- new first: filled or not filled, if filled; bad-policies or good-policies -> never forget that: IT shaping moral practices as well

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2- it isn't just "new" anymore, e-ntegration (my call)

an update to the standard account

1- new first: filled, not filled, if filled; bad-policies, good-policies -> IT shaping moral practices

2- it isn't just "new" anymore

3- newness as an impact at introduction -> missing that there is social context in it, technology <-> human (*Steve Jobs, Steve Wozniak, Apple, HP, California, garage, electricity, electronic engineer, mouse, on-screen icones, hobby store*)

an update to the standard account

1- new first: filled, not filled, if filled; bad-policies, good-policies -> IT shaping moral practices

4- newness – only possible? best possible? (*Helen Nissenbaum – TrackMeNot, value sensitive design*) do **NOT** get blinded please!

an update to the standard account

The standard account is not especially for "computer" or "IT", it is rather on "new technology" in general**.**

the sociotechnical systems perspective

Science and Technology Studies (STS)

SocioTechnical Systems (STS) perspective

“Avoid 3 mistakes while thinking about technology!”

the sociotechnical systems perspective

1- reject technological determinism -> think coshaping

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tenets of technological determinism

a- technological development is independent from society X (*decisions of government agencies, social incidents, war/terrorist attacks – security, National Science Foundation – NSF investment on nanotechnology*)

the sociotechnical systems perspective

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b- technology determines the character of society X (*automobile safety and fuel efficiency -> automobile design*)

both (a) and (b) can be referred to 3rd required update to the standard account (my call)

the sociotechnical systems perspective

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"Nature cannot be made to do just anything humans want it to do. Nevertheless, nature does not entirely determine the technologies we get."

the sociotechnical systems perspective

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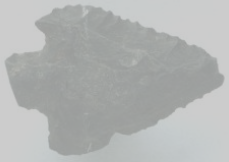

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the sociotechnical systems perspective

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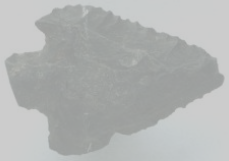

technology -> "social product"

artifact is only a part of a social system and it doesn't do anything itself (*employee monitoring system*)

sociotechnical systems (Hughes, 1994) – not only social, not only technical, **(different from traditional ethics)**

cannot understand a technology just by focusing on the artifact (*monitoring tool, data-mining tool, word processor*)  (*updates to 3rd and 4th of std.acc.)*

the sociotechnical systems perspective

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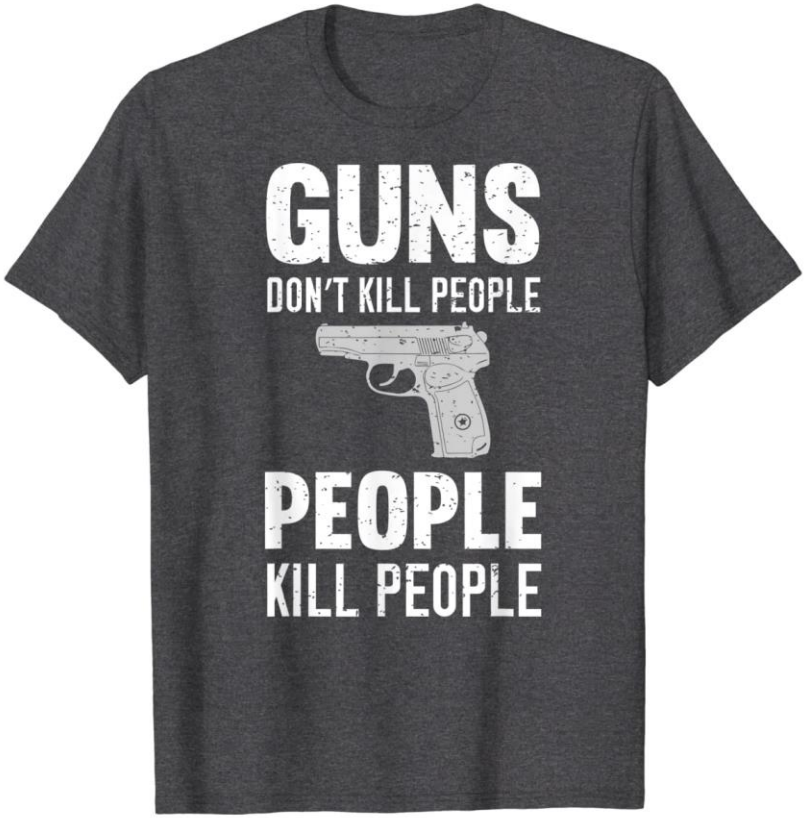
"value neutral"



the sociotechnical systems perspective

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"value neutral"

Langden Winner, 1986, "Do artifacts have politics?"

Particular technologies cannot exist or function without particular kinds of social arrangements.

adoption of technology -> adoption of social order (*nuclear power v.s. windmills, trains v.s. bicycles*) (*social v.s. individual*)

the sociotechnical systems perspective

enforcing social biases (Bridges of Long Island, 1930s, New York, Robert Moses)

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a race-biased arrangement?

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a race-biased arrangement?

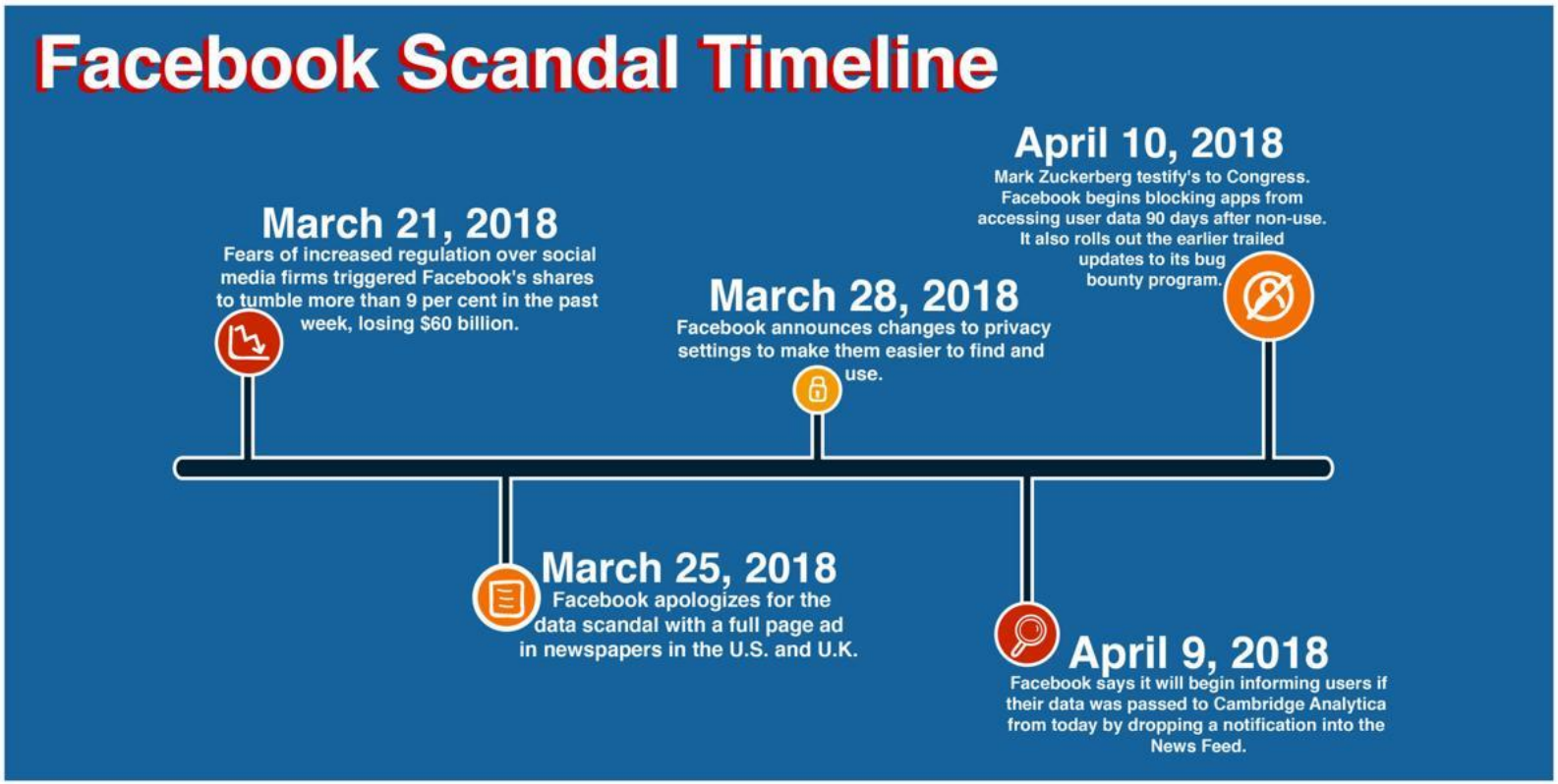
could be technical determinism as well?

- **height of bridges**
- size of buses
- previous social arrangements
- ideas about race and social hierarchy

sociotechnical computer ethics

just for example, a STS here:

Facebook (*1-Mark Zuckerberg, Harvard, didn't come out of nowhere, 2-social networking site, users contribution, users enforcement, 3-not neutral, user values v.s. facebook values – profit organization*)



micro and macro level analysis

micro level -> individual (*RFID tag, RFID tag implanted on elderly?*)

macro level -> groups, organizations, countries (*hospital policies, should software be proprietary?, should employers monitor employee emails?*)

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interaction of micro and macro levels:

“The hacker was wrong to gain unauthorized access because it is illegal.”

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Different technologies have different effects.

Not just "ethics" instead of "IT ethics", because STS perspective notes that all social activities are, in a part at least, shaped by technology.

return to "why computer ethics?" question

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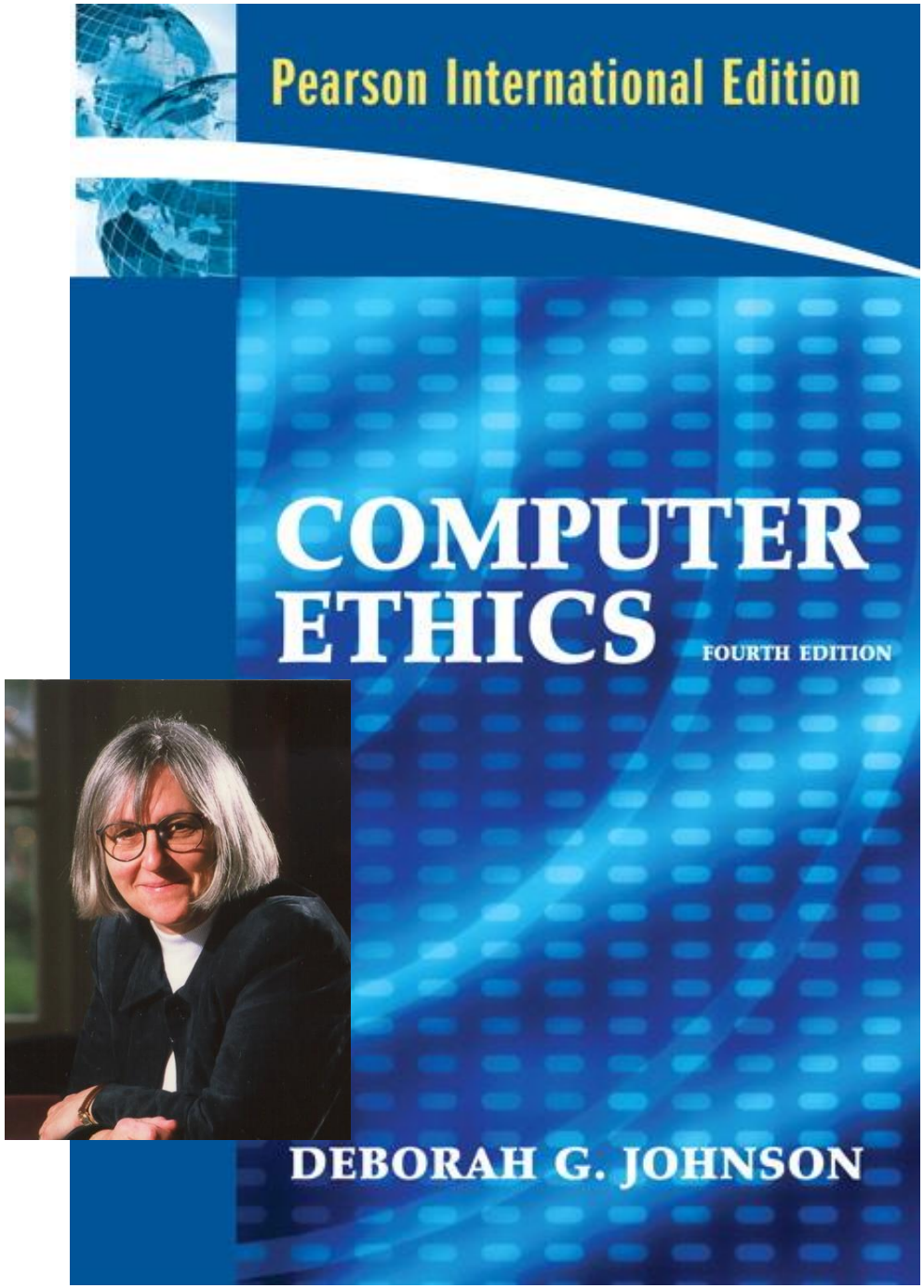

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