

**Being Human in the Twenty First Century:
How Social and Technological Tools Are Reshaping
Humanity**

or

Humans [~~and vs.~~ as] Machines

or

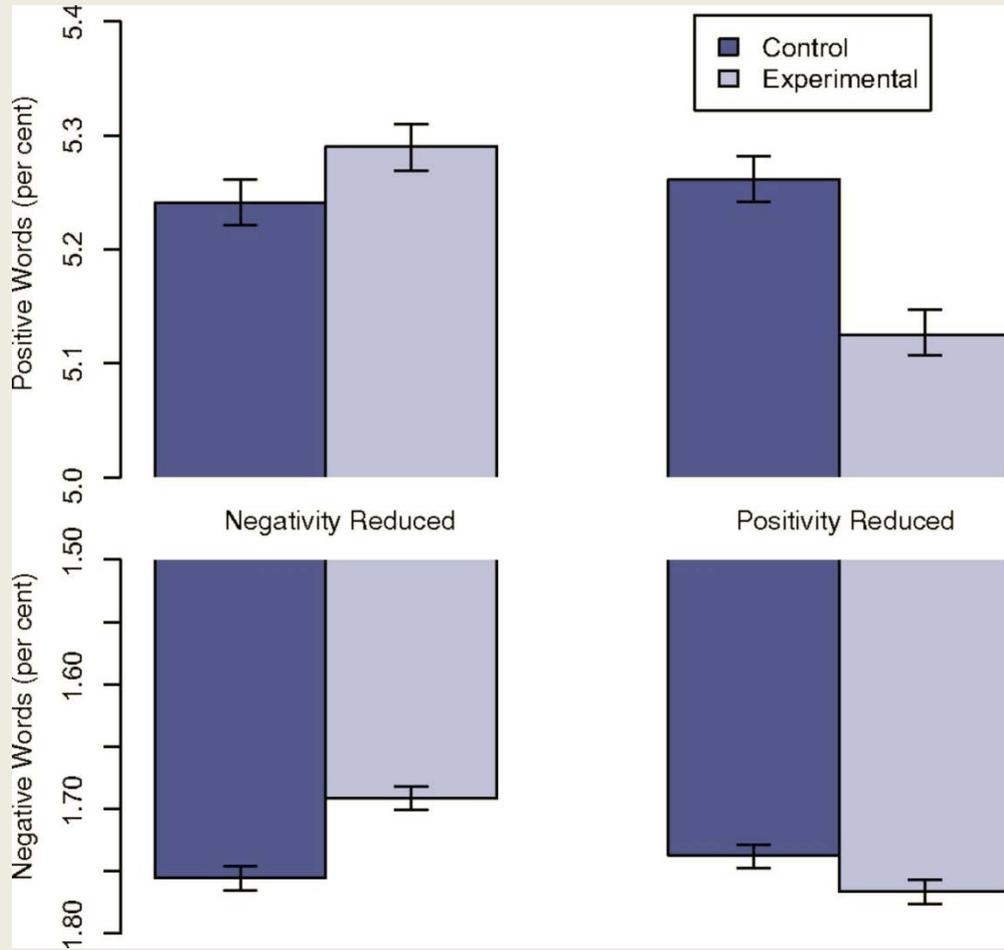
Can Humans Not-Think?

or just

We Frogs

Brett Frischmann
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1. Is deliberate emotional manipulation by Facebook a problem of *process* (no informed consent for the subjects) or *substance* (emotional manipulation)?
2. If it is a problem of inadequate *process*: Is IRB review a solution? What about informed consent? What does that mean to you? Pretend you're negotiating a one-to-one contract with Facebook. What exactly would you agree to? Would clicking "I agree" when you sign up for the service be enough?
3. If it is a problem of *substance*, can you explain the problem without reliance on adjectives like creepy? Can you articulate what exactly is wrong with emotional manipulation by Facebook?
4. Is it acceptable for Facebook to induce or suppress the emotional contagion of your friends?
5. Suppose Facebook tests, develops, and optimizes its emotional manipulation capability to help people to make better decisions? Would it be acceptable for Facebook to induce or suppress impulsive purchases (or at least, clicks)?
6. Suppose Facebook optimizes its emotional manipulation capability specifically to minimize emotional interference with rational decision making. Would this nudge people to make *better* decisions? Would people nudged in this fashion act like machines? Would they be (or could they be) any less human?
7. Suppose Facebook optimizes its emotional manipulation capability and lets users choose the settings—dial up some happiness! Would you use it?

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3. **It is a problem of *substance*. How can we identify and evaluate when socio-technical engineering of our emotions crosses a line?**
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7. Suppose Facebook optimizes its emotional manipulation capability and lets users choose the settings—dial up some happiness! Would you use it?
8. **There is no reason to think the technology will be limited to a social networking environment.** (It isn't now anyways.) How does the analysis change when Facebook [or whoever else] extends the optimized emotional engineering tech to other environments – e.g., workplace, home, public spaces ... IoT, Big Data, automated systems

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Themes

- When does technology replace or diminish our humanity?
- Can we detect when this happens? How will we?
- What makes us human?
- When and how do humans become programmable?

Three parts

1. **Humans and Tools:** "We shape our tools and, thereafter, our tools shape us." John Culkin (1967).
 - Framing the themes and the difficulty of evaluating claims of tech dehumanization
 - Techno-social engineering of humans
 - Past, present, future examples (Workplaces, Schools, Mass media, Nudges, ICT, IoT ...)
 - Isolated, independent, discrete → interconnected, interdependent, continuous
2. **Human focused Turing type tests**
 - Intelligence tests, including common sense and irrationality
 - Free will, autonomy, predictability
 - Relational / social (i.e., *Can Humans Not-Relate?*)
 - Qualia / Experience
 - Others
3. **Applications**
 - Nudging – macro-view
 - Technological reconstruction of our shared environments and us: Internet of Things, ubiquitous sensor networks & Big Data enabled automated systems of, about, around, on and in us; persistent and systematic techno-social engineering (or more palatably, nudging)

Turing Line

Humans

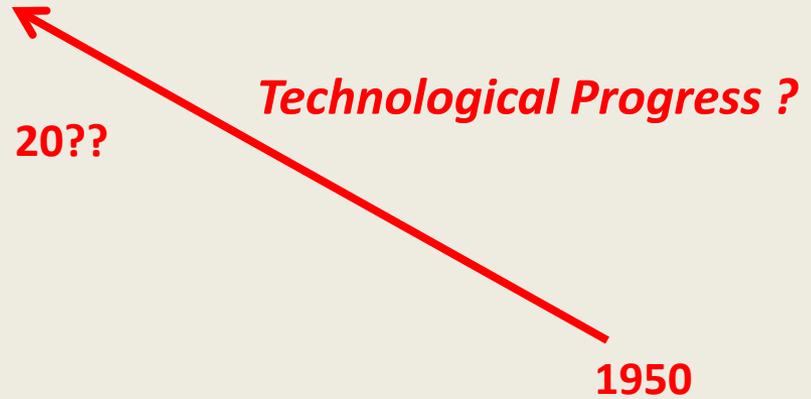
Machines



Turing Line

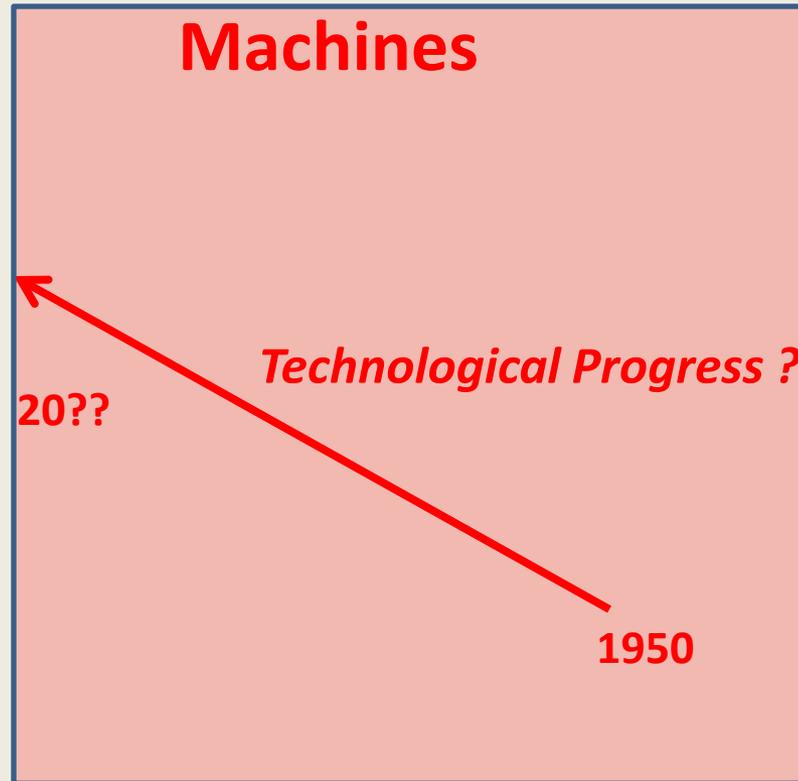
Humans

Machines



Turing Line

Humans



*Environment
(constructed by Turing)*

Turing Line

as

Finish Line

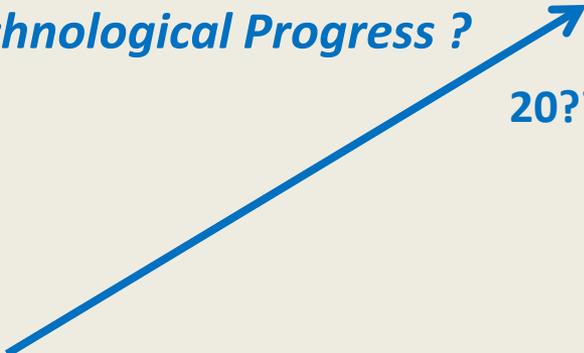
Humans

Machines

Technological Progress ?

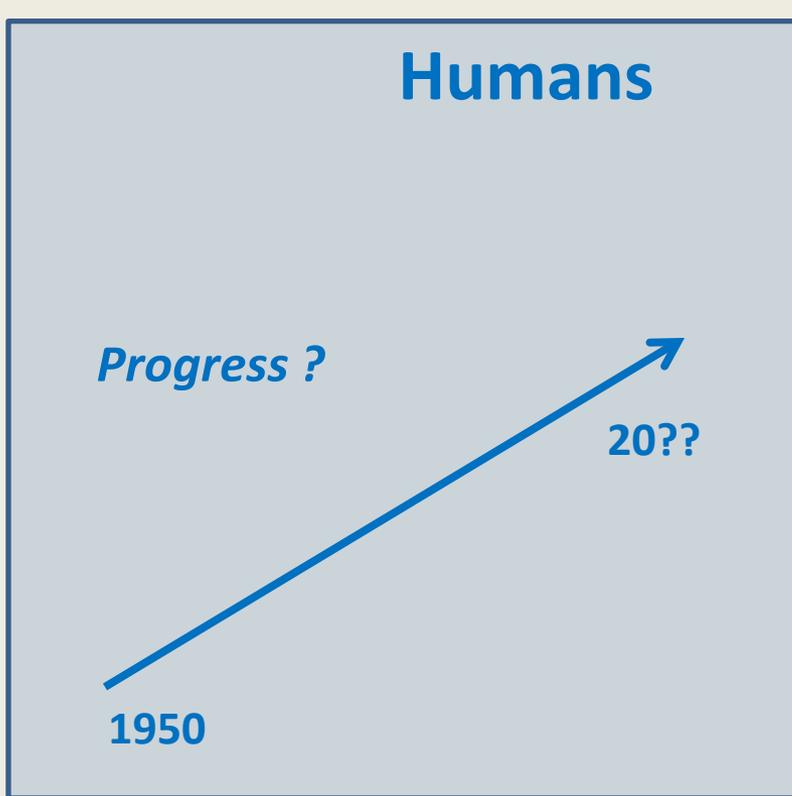
20??

1950



- Under what conditions and/or when are humans indistinguishable from machines?
- Can humans be programmed or constructed to be indistinguishable from machines?
- Can environments dehumanize?
- How and/or when are human beings constructed (via technology, social context, and the environment within which we live and through which our preferences and beliefs are formed) to be indistinguishable from machines?

Turing Line

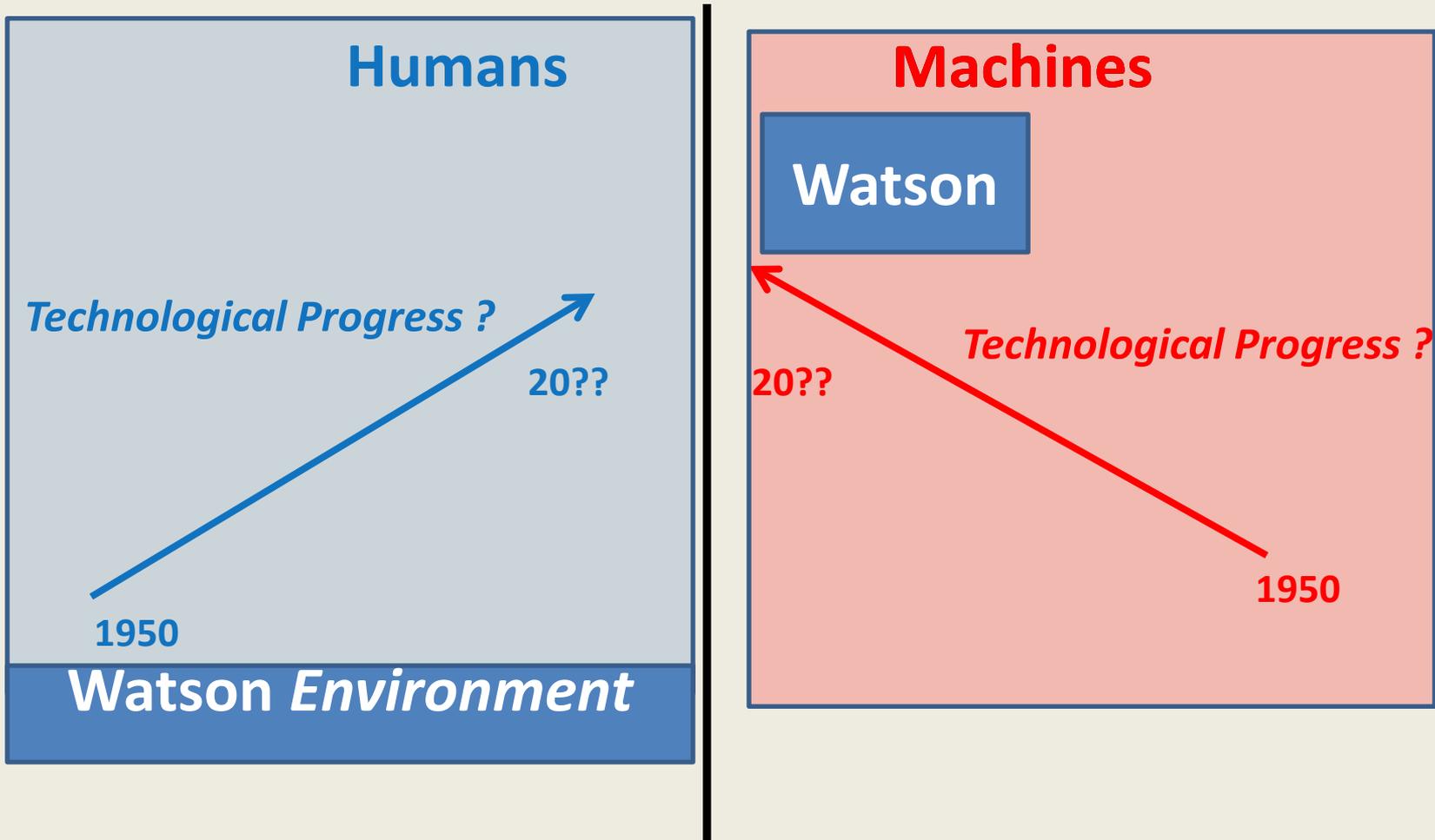


Machines

Environment

Environments

Turing Line



Turing Line

Employees

Machines

Progress ?



Call Center Employees

The Computerized Voice that Wasn't, NY Times

Call Center Environment

Intelligence-related characteristics that can be tested

- Reason
- Rationality / Irrationality
- Willpower
- Emotion
- Phenomenological experience, such as the capacity to feel and understand the feeling of hot/cold, hunger, etc., or to see and understand the color red
- Language / capacity to construct new language or social meaning
- Common sense
- Planning for others / for the happiness of others
- Language with which to plan for future / others
- System 1 & system 2: thinking fast and slow
- ...

- Two preliminary tests ...
 - Mathematical computation
 - Random number generation
- Suppose human passes test and is mistaken to be machine with regard to either of these capacities. *What inferences?*

(ir)rationality

- Set-up: conventional Turing test w/ simple machine agents and machine observer
- Observer machine (w/ machine learning and battery of RC tests) → *perfect rationality detector*
- Thought experiment: *Nudging environment*
 - Human routinely pass test
 - What inferences?
 - Extensions of thought experiment ...

Instead of saying:

- By checking this box, you are confirming that you have read and agree to the terms and conditions of this site.

Do we behave
rationally?

Doghouse Diaries
"Applicants need not apply."

This would be more truthful:

- By checking this box, you are confirming that you are pretending to have read the terms and conditions of this site, because it's kind of ridiculous for us to expect you to read 12 pages of legalese, let alone understand it, and despite the fact that you're a tiny bit nervous that this could incriminate you at some point in the future, you're pretty sure it won't because you're more or less convinced that we just have this here so that it would be hard for you to sue us in the event that either of us did something stupid, and you're not worried about that because you feel like you're a reasonable person and won't do something against our terms and conditions, and even if you did we probably wouldn't even notice, plus a lot of people would leave our service if we tried to screw them over, so just check this box, I mean, you went through all of the trouble of filling in all the forms above, and it would be a real waste to just turn back now.

- Suppose the nudging government did not limit itself to workplace environments. Suppose the government systematically constructed nudging environments in as many places and social contexts as possible.
 - *If this seems implausible and too abstract, consider modern surveillance systems.*
- Suppose the government is not involved and the nudging environments are voluntarily constructed by private entities, such as firms or collections of people employing shared technologies. Does it matter *who* is doing the nudging?
 - *Once more, if this seems implausible and too abstract, consider modern surveillance systems.*

common sense

- “[We] can understand common sense itself as the base of knowledge about common-sense reality that allows each of us to survive and thrive during our everyday lives. Common *beliefs* about the common-sense world are the most prominent components of this knowledge base. ... common sense also includes the widespread *abilities* that allow us to act successfully in the common-sense world.”
 - (Erion at 33).
- It entails core knowledge and skills that are shared and “used by all of us (even skeptical philosophers) during our everyday lives.” Language is critical to common sense both as knowledge and as skill. That is, competence in using language is a “subset of common sense”
 - (Erion at 36).

common sense

- My claim:

Common sense depends upon a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs.

Common sense test

- High bar for machines, but what about for humans?
- *What would it mean if a human were indistinguishable from a machine based on the human's performance in a common sense test?*
 - Thought experiment: Alice lost

Common sense and technology

- Common sense may dictate resort to technology
 - But technologies are not neutral or equivalent
 - Some may substitute for common sense or disable access to key inputs (core knowledge base, language, and social interactions)
 - Reliance on different communities

1. Humans face common problems in everyday life (“everyday life problems”).
2. Humans develop and rely on common sense solutions to everyday life problems.
 - Developing common sense solutions necessarily depends on a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs.
 - Developing common sense solutions [*necessarily? often? usually?*] depends on experimentation and social innovation.
3. Humans develop technology to solve problems.
 - Developing technology to solve a problem depends on knowledge, experimentation, and innovation, but not necessarily on a shared core knowledge base, language, and social interactions sufficient to generate common understandings and beliefs.
4. Some technology solves everyday life problems.
5. If technology solves an everyday life problem (more efficiently than existing common sense solutions) then humans will not (are less likely to) develop common sense solutions to that problem.
6. If technology solves *all* everyday life problems, then humans will lack common sense (or a subset of common sense that concerns problem solving).
7. Humans without common sense are indistinguishable from machines, at least in one (important) respect.

Conclusion

- What are we testing on the human side of the Turing line? What can we reasonably infer when test is passed?

We Frogs need to be able to detect changes in water temperature before we can contemplate whether it is getting too hot, much less who is controlling the heat.