

# Moral responsibility, and professional integrity

E. Furberg

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## Moral agency and responsibility

- Three necessary (and sufficient) conditions for holding someone (morally) responsible:
  1. There should be a **causal connection** between the person and the outcome of actions. A person is usually only held responsible if she had some control over the outcome of events.
  2. The subject has to have **knowledge of and be able to consider the possible consequences of her actions**. We tend to excuse someone from blame if they could not have known that their actions would lead to a harmful event.
  3. The subject has to be able to **freely choose to act in certain way**. That is, it does not make sense to hold someone responsible for a harmful event if her actions were completely determined by outside forces.

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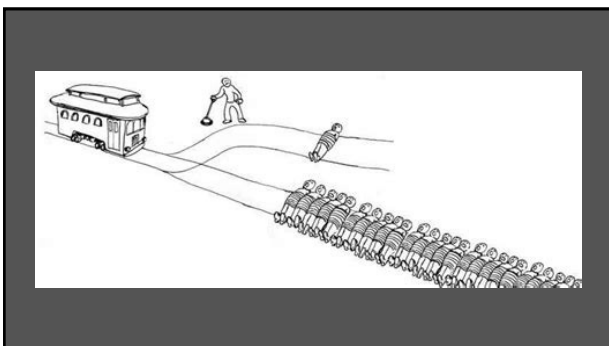
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Stanford encyclopedia of philosophy: computing and moral responsibility

"In today's increasingly technological society [...] human activity cannot be properly understood without making reference to technological artifacts, which complicates the ascription of moral responsibility (Jonas 1984; Waelbers 2009). As we interact with and through these artifacts, they affect the decisions that we make and how we make them (Latour 1992). They persuade, facilitate and enable particular human cognitive processes, actions or attitudes, while constraining, discouraging and inhibiting others. For instance, internet search engines prioritize and present information in a particular order, thereby influencing what internet users get to see. [...] Such technological artifacts are "active mediators" that "actively co-shape people's being in the world: their perception and actions, experience and existence" (Verbeek 2006, p. 364). As active mediators, they change the character of human action and as a result it challenges conventional notions of moral responsibility (Jonas 1984; Johnson 2001)."

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3. Computing and *being free to choose*

Two common ideas that seem to undermine moral responsibility in developing new technology:

1. The idea of technology (merely) as a value-neutral tool
2. Technological determinism

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Technology as a value neutral tool?



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1. Sometimes technological tools are not value neutral because they have obvious adverse intended uses (creating viruses, spy-ware etc.) or obvious problematic dual-uses.

2. Sometimes technology not only allows for certain actions, but nudges us to perform them. The technology is *designed* so as to make us perform certain actions rather than others.

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### Technological determinism

- Most interpretations of technological determinism share two general ideas:
  - that the **development of technology itself follows a predictable, traceable path** largely beyond cultural or political influence ("if it can be done, it will be done"), and
  - that technology in turn has "effects" on societies that are inherent, rather than socially conditioned or produced because society organizes itself to support and further develop a technology once it has been introduced. (Compare Marx idea of historical materialism!)

(Friedman: Designers inscribe their own intentions and values into the technology, and once developed and deployed, the resulting technology determines specific kinds of human behaviour.)

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**Discuss!**

- Discuss together whether you believe that there is good reason to assume the two claims of technological determinism. Should we embrace both, one, or none? By what reasons would you motivate your stance?
- Try to think of particular technologies that you think brings support to the claims (or their negation)!
- What implications would your stance regarding the two claims have on the question of moral responsibility in general, but also the moral responsibility of engineers in particular?

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**Moral agency and responsibility**

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**1. Computing and the causal connection**

- The "Problem of Many Hands": it is difficult to determine who was responsible for what when multiple individuals contributed to the outcome of events (Friedman 1990; Nissenbaum 1994; Jonas 1984; van de Poel et al. 2015). Think examples in programming for example, but also sustainability – to what extent can I be held responsible for global warming?
- There is a growing 'responsibility gap': the more complex computer technologies become and the less human beings can directly control or intervene in the behaviour of these technologies, the less we can reasonably hold human beings responsible for these technologies (Matthias, 2004).
- Technological artifacts bring together the various different intentions of their creators and users. Who is responsible – the creator or the user of a specific technology?

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2. Computing and considering the consequences

- Very difficult to estimate the consequences in the technological age.
- "What sets our historical epoch apart from earlier ones is that technological mediation has rendered the effects of our actions radically more powerful and, at the same time, radically less foreseeable and controllable than ever before" (Jonas, 1984)

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Two distinct forms of responsibility

- Backward-looking (blame-) responsibility
- Forward-looking (task-) responsibility
- But also, role specific duties/responsibility

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Role-specific responsibility and professional integrity

"My continuing professional work is on improving the reliability of software. Software is a tool, and as a toolbuilder I must struggle with the uses to which the tools I make are put. I have always believed that making software more reliable, given its many uses, will make the world a safer and better place; if I were to come to believe the opposite, then I would be morally obligated to stop this work. I can now imagine such a day may come". (Bill Joy)

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What is a profession?

- profes•sion pra-fesh'ən▶
- n. An occupation or career.
- n. An occupation, such as law, medicine, or engineering, that requires considerable training and specialized study.

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Professional responsibility

- Professional values – i.e. values that should be considered especially when making professional decisions (Lawyer – the value of due process, teacher – the value of equal opportunity etc.)
- Common ethical codes and guidelines (sometimes this is even considered to be one of the fundamentals of being a profession)

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The IEEE Computer Society

- Software engineers shall commit themselves to making the analysis, specification, design, development, testing and maintenance of software a beneficial and respected profession. In accordance with their commitment to the health, safety and welfare of the public, software engineers shall adhere to the following Eight Principles.
- 1. PUBLIC – Software engineers shall act consistently with the public interest.
- 2. CLIENT AND EMPLOYER – Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest.
- 3. PRODUCT – Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.
- 4. JUDGMENT – Software engineers shall maintain integrity and independence in their professional judgment.

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Ethical code continued

- 5. MANAGEMENT – Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance.
- 6. PROFESSION – Software engineers shall advance the integrity and reputation of the profession consistent with the public interest.
- 7. COLLEAGUES – Software engineers shall be fair to and supportive of their colleagues.
- 8. SELF – Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

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Professional integrity?

- How do we become better professionals when it comes to making moral decisions and assuming moral responsibility?
- Mary C Gentile – we practice voicing our values!
- Waste no more time arguing *what are* the right decisions – try to make them!

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Mary C Gentile (2010) *Giving Voice to Values.*

- 1. **Values.** Know and appeal to a short list of widely shared values, such as honesty, respect, responsibility, fairness, and compassion.
- 2. **Choice.** Discover and believe you have a choice about voicing values by examining your own track record. Know what has enabled and disabled you in the past and recognize the capacity for choice in others.
- 3. **Normality.** Expect values conflicts so you can approach them calmly and competently.
- 4. **Purpose.** Define your personal and professional purpose explicitly and broadly before values conflicts arise: what is the impact you most want to have in your work, profession, and career?
- 5. **Self-knowledge, self-image, and alignment.** Generate a personal narrative about the decision to voice your values that is consistent with who you already are and builds on the strengths and preferences that you already recognize in yourself.

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Discuss!  
(or think of  
them until next  
lecture...)

1. Come up with a joint list of approx. three values that you all share and believe are extra important to you in your professional life (if you need help, you can consider Gentiles examples, or principles from the ethical code of the IEE Computer society). Also think of what your personal and professional purpose might be – what is the impact you most want to have in your work, profession, and career?
2. Come up with and describe a possible future/or past work related scenario where one of the listed values might come into conflict with some other value or with some other obligation.
3. What do you think would be your moral obligation in this scenario? How would/ you, practically, "solve" the situation?

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