Information Ethics as an engineering discipline

lessons learned from teaching Information Ethics to 450 PhD students

Thomas Baudel, IBM France Lab & University of Paris-Saclay

Artificial intelligence and the next generation of competences :
How Digital – and Artificial Intelligence will impact jobs and competences profiles?

The World Conference on Intellectual Capital for Communities

UNESCO, 11 & 12 July 2019

AI Ethics as a subarea of Information Ethics

"Information Ethics is the concern for the well-being of the *infosphere*"
(adapted from Luciano Fioridi)

Ethical analysis is deeply contextual: what matters most is the human activity that our technology challenges. We want to categorize Information Ethics according to the activity it impacts:

- Computing systems impact: cybersecurity…
- Social and economic impact
  - Protecting value creation, intellectual property, DRM vs. Open source…
  - Freedom of expression vs containing inappropriate speech:
    internet ethics, search ethics, journalism ethics…
- Human impact: privacy, physical and mental health, sense of self…
- Effect on nature and the environment

(somewhat) Novel challenges in Information Ethics

AI Ethics

- Decision governance - governance *of* algorithms, governance *by* algorithms
- Design ethics - attention capture, digital addiction…
- Data science ethics – symbolic vs statistical systems, bias
- (semi- &) Autonomous systems ethics
- Global Information Ethics – digital divide
- …

An applied Ethics, a technological Ethics

Traditionally, ethical behavior is enforced through morality and law. Yet, there are technological means to resolve ethical tensions.

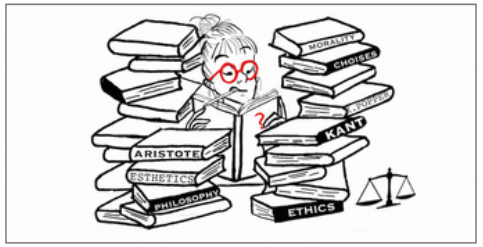
Tech industries hire privacy engineers, ethicists… with an engineering background (cf danah boyd)

Future curriculae require engineers versed in dialectics!

A MOOC to engage students and co-construct a shared set of ethical values and practices

Ethics & STICs ParisSaclay

L'INSCRIPTION À CE COURS SE FAIT SUR INVITATION SEULEMENT



ABOUT THIS COURSE

What does integrity in research mean and why is it important to follow an ethical conduct when carrying your research work? "Doing what's good" is a matter of personal values, and it may not seem an appropriate topic for a university course. Shifting to a "doing what's right" perspective introduces room for questioning: do I *know* what's right? Upon entering a PhD programme, you are moving from a student's position, where your main responsibility was to acquire and demonstrate acquisition of knowledge, into a position of *producing* knowledge. This creates new relationships with coworkers and your hosting institutions, new expectations in your ability to produce knowledge properly and new responsibilities towards science and society in general.

To help you understand these changes, and because regulatory texts now demand that all doctoral students be trained in research integrity and ethics, the STICs doctoral school of the University Paris-Saclay provides this course to all its students. It covers the following topics:

- The Doctoral Contract (researcher as a subject under law and an employee),
- Research Integrity (producing science correctly),
- Research Ethics (producing science responsibly),
- Computer and Information Ethics (how these apply to your research context),
- Intellectual property (researcher as a producer and consumer of value),

Numéro du cours	**71004SP**
Début du Cours	**01 juin 2019**
Fin des cours	**05 juil 2019**
Effort estimé	**12:00**

Some lessons learned

- 450 PhD students, hundreds of discussions in the forum.
  - 15% enthusiasts
  - 55% ‘appreciative’
  - 15% consider the subject irrelevant to their work area
  - 15% have trouble assimilating the content
- Need to start with a conformity-based approach, to address the full public, then raise in abstraction towards ethical analysis.
- Complement with discussion forum and resource center.

  https://reddit.com/r/ComputerEthics

Towards an ontological approach of Information Ethics

According to Heidegger, our human condition is about ‘being there’: a conscious entity constrained in time and space.

In the *infosphere*, a computer agent is neither bound to a location nor a time frame. Our traces in the infosphere are durable and are a part of our essence.

If an ethical system is designed according to the conditions of our existence, information technologies are changing those very conditions. Hence, they force us to reconsider our approaches at Ethical analysis.

Rafael Capurro: http://www.capurro.de/oxford.html

Intercultural Information Ethics, a vivid example