

# Ethics and Digital Technologies: Grids, grids, grids

Karën Fort

karen.fort@sorbonne-universite.fr / <http://karenfort.org>

February 1st, 2019



# Sources of inspiration

- ▶ edX MOOC from the University of Michigan (2016): *Data Science Ethics*
- ▶ *Serment d'Hippocrate pour data scientists*(FR):  
<https://hippocrate.tech/>
- ▶ CERNA report: Research ethics in machine learning
- ▶ Data Ethics Decision Aid (DEDA)

Why grids?

Data Ethics Decision Aid

Machine Learning Ethics

To finish

## Reminder: beyond Grids

Grids are attractive:

- ▶ simple
- ▶ illusion of exhaustiveness

But they are far from enough:

*" Neither the risk analysis informed by engineering practice, nor the socially informed engineering practice can be replaced by the other." [Gurses et al., 2011]*

# Making the Most of Grids

1. start thinking/discussing **without** them
2. use them as a complement
3. do not limit your thinking because you checked all the list in the grid

# Done/To Do

You already saw:

- ▶ the consequentialist grid of analysis [Lefeuve et al., 2015]
- ▶ the privacy by design checklist and some of its "children" [Gurses et al., 2011]
- ▶ a couple of GDPR articles

What I'll present you today:

- ▶ DEDA
- ▶ CERNA's work on machine learning

Why grids?

**Data Ethics Decision Aid**

Machine Learning Ethics

To finish



## DEDA.app

The DEDA app addresses the different phases of a data project with individual questions. Depending on the user's answers, DEDA responds with new questions, addresses concerns and points to action points. It also documents the users approach to the ethical issues. The resulting report can be used to further scrutinize the ethical compliance of a data project and/or be archived for documentation, transparency and accountability.

**ACCESS DEDA.APP**



<https://dataschool.nl/deda/deda-app/?lang=en>



**Ethics Decision Aid**

**START**

**STEP ONE**

**STEP TWO**

**DATA RELATED CONSIDERATIONS**

**ACCESS**

**VISUALIZATION**

**ANONYMIZATION**

**SOURCE**

**ALGORITHMS**

**GENERAL CONSIDERATIONS**

**BIA**

**PRIVACY**

**TRANSPARENCY/ACCOUNTABILITY**

**LITIGIOUSNESS**

**INFORMED CONSENT**

**STEP THREE**

**What are the risks?**

**What are the benefits?**

**What are the alternatives?**

**What are the consequences?**

**What are the stakeholders?**

**What are the values?**

**What are the principles?**

**What are the rules?**

9 / 17

# Using DEDA

Just Do It

Take the survey for the case you presented

Why grids?

Data Ethics Decision Aid

**Machine Learning Ethics**

To finish

= Commission de réflexion sur l'Éthique de la Recherche en sciences et technologies du Numérique d'Allistene

- ▶ créée en 2012
- ▶ various public research actors: Inria, CEA, CNRS, etc.
- ▶ organizes special days (conferences) on different themes:
  - ▶ robots
  - ▶ machine learning and AI
  - ▶ governing algorithms, etc.
- ▶ working groups, producing reports

# Machine learning ethics report: six themes

1. Data
2. Autonomy
3. Explainability
4. Decision-making
5. Consent
6. Responsibility

Why grids?

Data Ethics Decision Aid

Machine Learning Ethics

To finish

WYHTR: What You Have To Remember



- ▶ Ethics is (also) good for business
- ▶ Ethical discussions help to develop interesting features
- ▶ Take the necessary time to discuss the project from an ethical point of view
- ▶ This time is not necessary long



Gurses, S., Troncoso, C., and Diaz, C. (2011).

Engineering privacy by design.

In Computers, Privacy & Data Protection.



Lefeuvre, A., Antoine, J.-Y., and Allegre, W. (2015).

Ethique conséquentialiste et traitement automatique des langues : une typologie de facteurs de risques adaptée aux technologies langagières.

In

Atelier Ethique et TRaitemeNt Automatique des Langues (ETeRNAL

Actes de la 1e Ethique et TRaitemeNt Automatique des Langues (ETeRNAL'2015), Caen (France), pages 53–66, Caen, France.