From Plato to Yoda
Training responsible AI designers for on-the-field action

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May 2020: Joined Umeå University as Associate Professor in Responsible Artificial Intelligence
Make of UMU a world-leader in teaching responsible AI design.
Discussions in groups/breakout rooms
If you skip, refuse the invitation to the breakout room
What jumps in people’s head when hearing... Responsible AI design?

Great smurf Kant said you should not...
How do others react?

“Not my problem”

Ethics problems should have been solved by the specs

People will just adapt
Or even active avoidance!

- “Responsible” = “extra pain”
- To be done for the rewards
  - Project funding
  - Business niche

“There will be an ethics/GDPR check! Are you mad?! Do you want to crash the project?!”

“They will ask to do so many silly things that nothing else will be done!”
And this is very bad for everyone!

• Responsible design is both needed and useful!
  (if you see beyond immediate interest)
Why such a wall?
• Responsible AI people mostly only **raise problems** to people who want **solutions**!
• Do often hear responsible designers saying:
  ▪ “We could be more [responsible] by… Here is how!”
• We need “**field**” responsible designers who **constructively bring better solutions**
But are we training these people?
State of the art of teaching responsible AI design for most curricula
Who are we training, then?

Ivory tower ethical panelists

Checking (and breaking)

Skilled at raising issues and cracking « grand dilemmas »
What about the army of engineers, actually implementing (responsible) AI systems?

No training for constructive field action and daily issues

• Field work has little “grand dilemma”, but many “petty” influences, pressures, and technical work
  ▪ Fix programs, bring solutions
  ▪ Constrained time and money
  ▪ The myriad of non-technical issues

Designer wanting to do good RAI design

Performance metrics
Crippling ethical paperwork

Project deadlines
Technical problems to solve
Our vision

- **REsponsible Designers of AI (REDAI)**
  - Daily business, on the field
  - First courses given to MSc, PhD
    - Pluridisciplinary (CS, cogsci, economy, interaction design etc)
- Today’s research question:
  - What are all the skills needed for responsible AI designers?
Missing skills for on-the-field responsible decision-making

These skills are not taught in responsible AI design courses!

- Will you find the issue?
  - Will it be explicit?
  - How will you find it out?
  - How many will you miss?
- Which options will you consider?
  - Will they be closed?
  - Will they be explicit?
  - Is it constructive? Or another «you should not»?
- How will you make the decision?
  - Will the decision fall within checklist boxes?
  - How much time will you have to make the decision?
  - Will you be alone making this decision?
    - What will be the process?
    - Do others care about responsible design?
  - What will be the actual effect of the decision?
    - How will you implement it?
      - Will your decision be heard? Will it be accepted?
      - How much opposition will you get? How will you manage this? Will you convince the others?
      - What will it cost you? Can you afford it?
- Can you do all while juggling with your technical activity?

And all those I did not think about!
Time for **you** to play!

• Today’s research question:
  - What are all the skills needed for responsible AI design?

• Zoomers
  - Will make small breakout rooms

• Others: group by 3/4
Exercise

• Think of the **hardest real-world ethical issue** you have been exposed to
  ▪ Ideally *about AI*, else CS or any issue
  ▪ Personally or not

1- Why was it hard?
  ▪ Hard to spot?
  ▪ Hard to solve?
  ▪ Unexpected fallouts?
  ▪ Other?

2- What **skills did you miss?**

Take up the link, fill up the form and then we will discuss the answers (in X minutes)

https://docs.google.com/document/d/1bLCf-EZ7M6SPDqnmNwlMhWdZUliAI1uX-8Jeqkk4KoU/edit?usp=sharing
On-the-field ethical problem

• It was hard because
  • Was punished for helping
  • Not expecting retaliation
  • Could not get the “game” being played
  • Use of “informal” pressures

• Missed skills:
  • Observation
  • Understanding of the informal social structures and dynamics
  • Social play wisdom

“I am not so sure, but it seems very much like plagiarism. Just add the citation and we are safe.”

“Woops, we forgot to add you in the paper”
Your turn to play 😊
Any answers on the document?

Questions can also be taken
Lessons learned

• Current teaching of Responsible AI design almost exclusively trains “ethical panelists” skilled at “ivory-tower grand decision-making”

• These skills unfit daily activity of implementing designers, facing hidden, fuzzy and deeply entangled issues while having many other tasks to complete

• Responsible design calls for a wide variety of skills, from hard decision-making to soft skills like emotional or relational management

• At Umeå, we strive towards teaching all the skills needed for growing designers that “make it happen responsibly”: they are the builders of the systems of tomorrow
Please contact us if you know other good papers, courses, and pedagogical methods on the domain or if you want to be updated with the pedagogical and scientific contents we are producing on the topic.

Tack för mig.
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