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AI & I: ON PERSONAL VULNERABILITIES IN INTIMATE TECHNOLOGIES

SYMPOSIUM DECEMBER 2ND 2021, VULNERABILITY & HCI

M. BIRNA VAN RIEMSDIJK

Cornell, Hybrid body lab – On-skin interfaces



MIT, Papadopoulou
Pressure sleeve



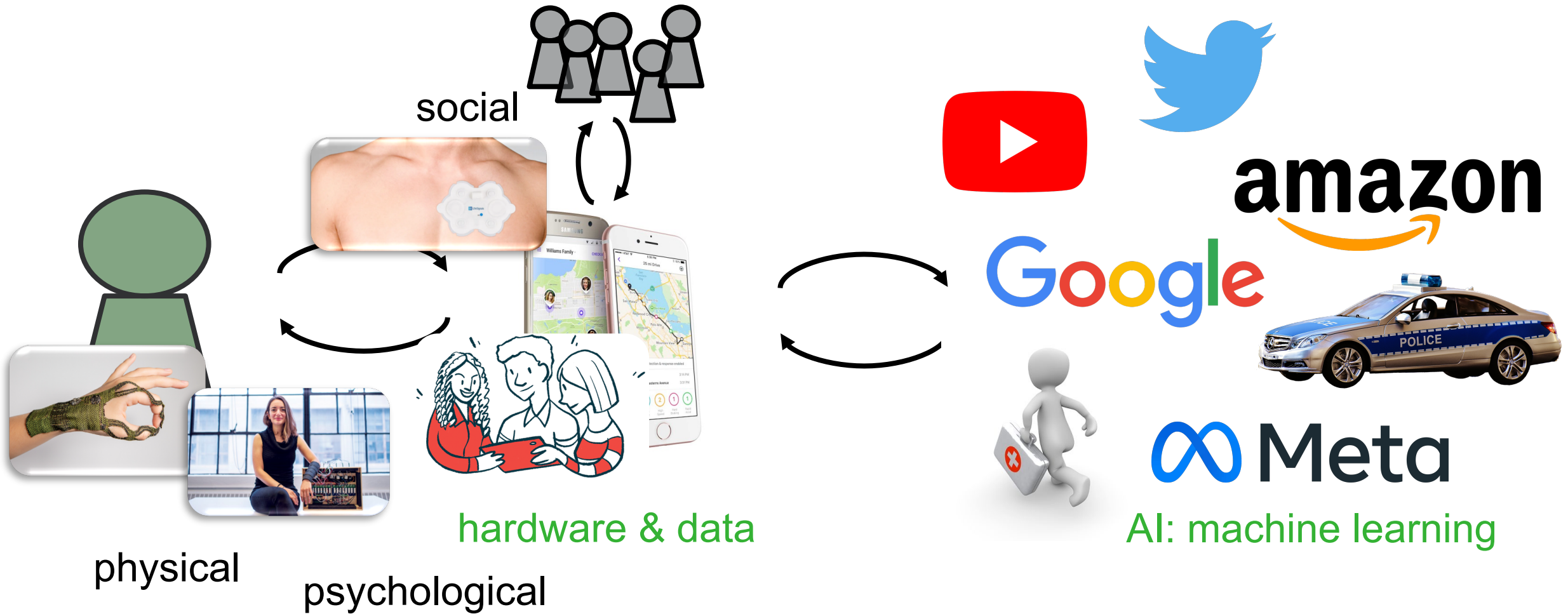
Intimate Technologies



Wise Therapeutics – Personal Zen app



LifeSignals – Employee health monitoring



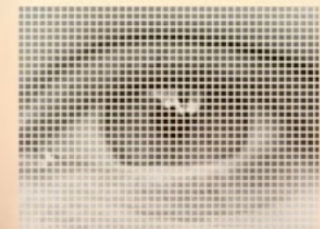
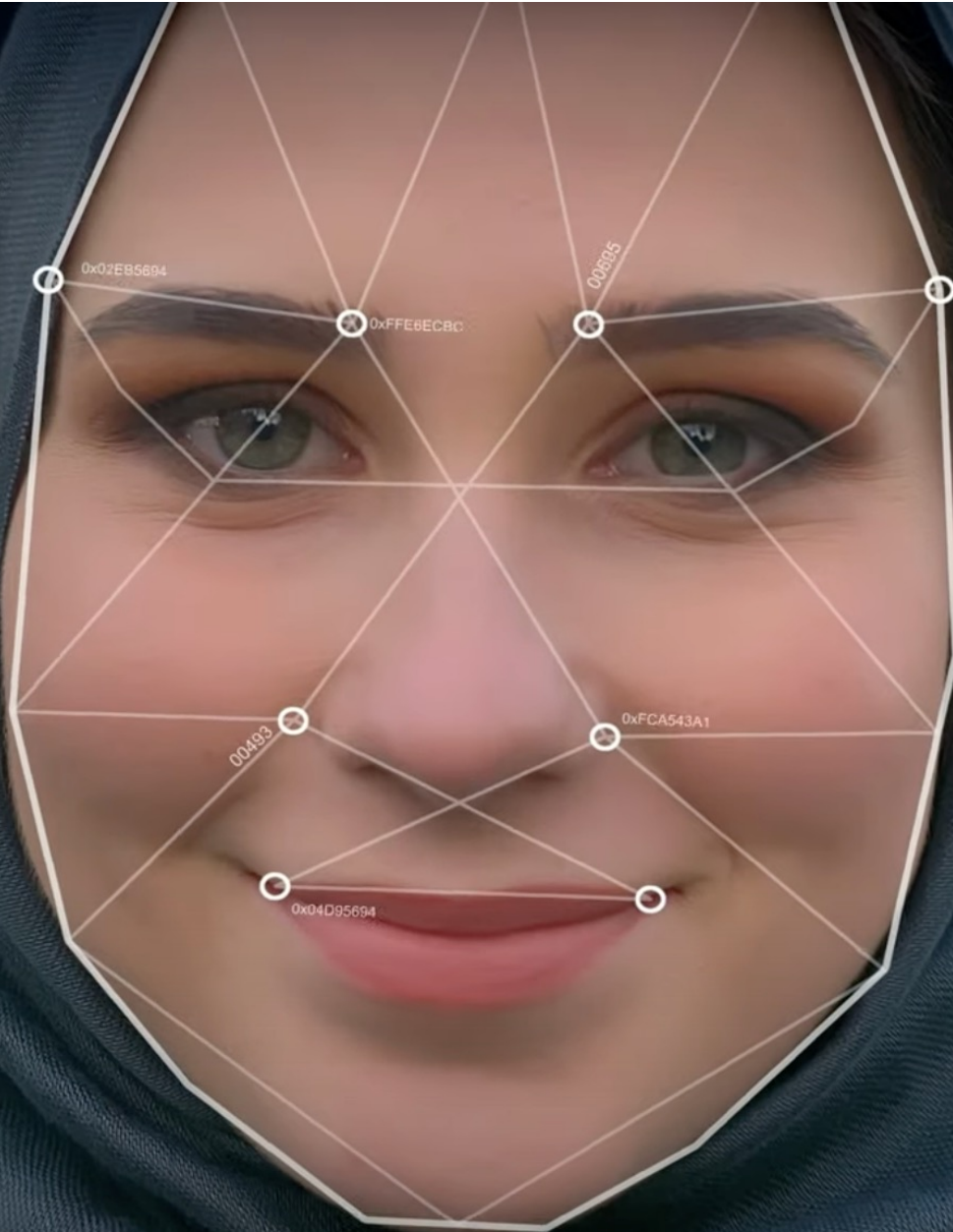
Intimate nature of technologies gives rise to novel human vulnerabilities that affect our identity

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Do you know AI or
AI knows you
better?



ACCESS GRANTED

YUVAL HARARI WARNS HUMANS WILL BE "HACKED" IF ARTIFICIAL INTELLIGENCE IS NOT GLOBALLY REGULATED

"To hack a human being is to get to know that person better than they know themselves. And based on that, to increasingly **manipulate you**" Harari says.

'Yeah, we're spooked': AI starting to have big real-world impact, says expert

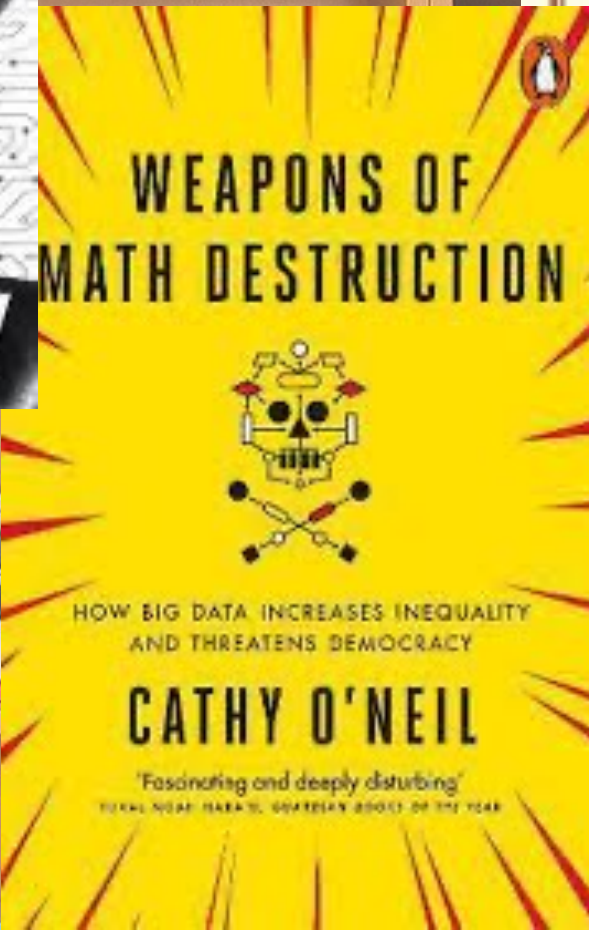
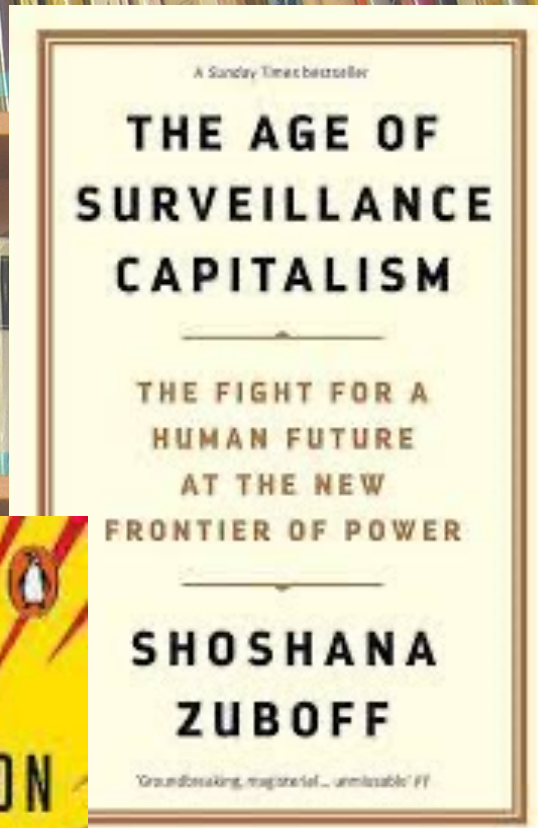
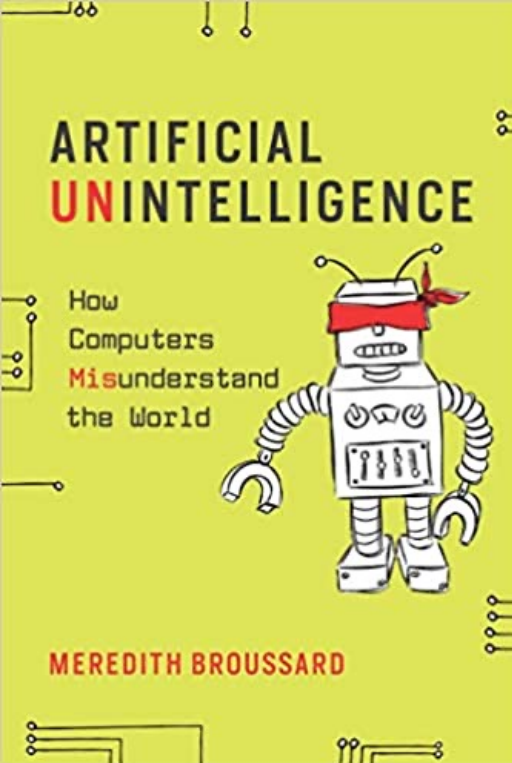
Prof Stuart Russell says field of artificial intelligence needs to grow up quickly to ensure humans remain in control

The upshot, he said, is that the algorithms **manipulate the user**, brainwashing them so that their behaviour becomes more predictable when it comes to what they chose to engage with, boosting click-based revenue.

Asimov's Three Laws Helped Shape A.I. and Robotics. We Need Four More.

A leading expert in the emergent field of A.I. law argues it's high time to update the three laws of robotics

be hardheaded here, because there's this burgeoning field of affective computing, which to me is, in so many ways, a prelude to manipulation and control of human beings by large corporations and **governments** through the mediating effects of technology. And we have to always keep our eyes



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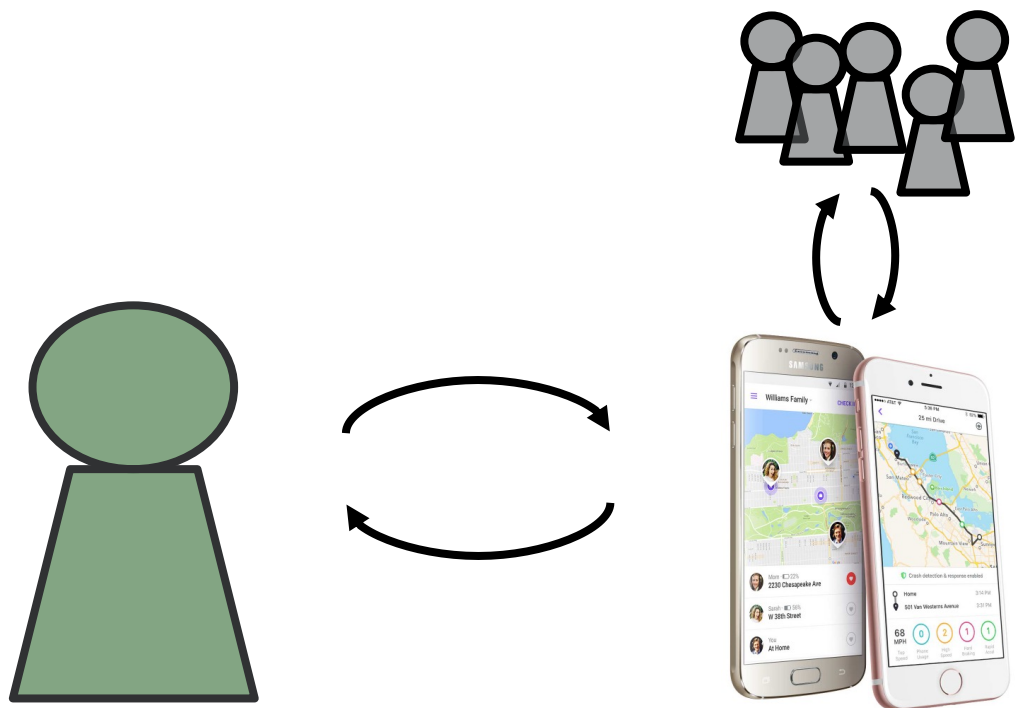
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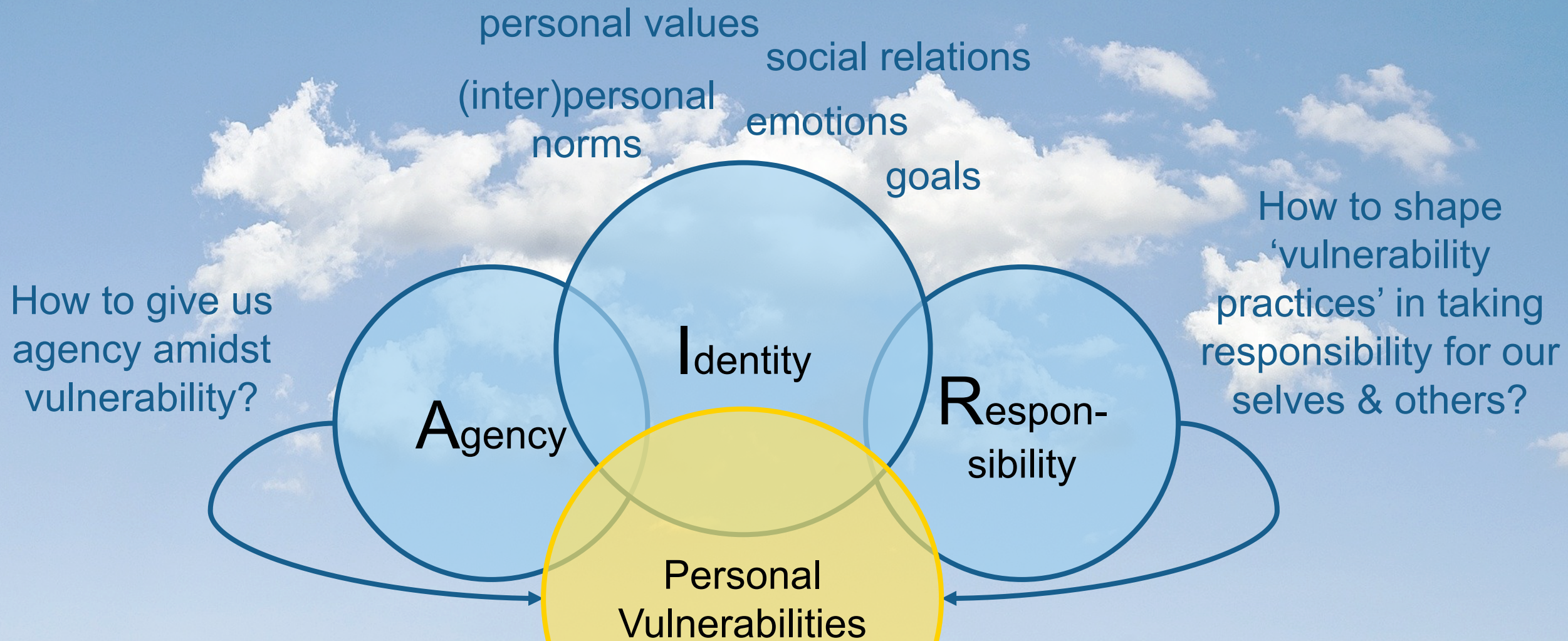
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How *do* we want to shape our selves with and through intimate AI technologies?

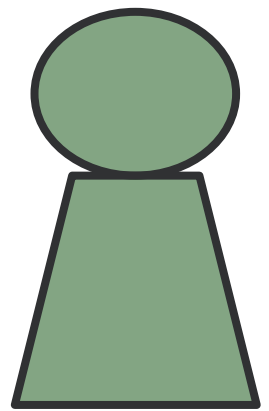


Regulation for addressing manipulation

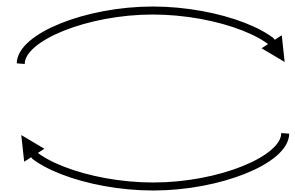


Computing with Vulnerability: use AI to create technology that can *take into account* personal vulnerabilities

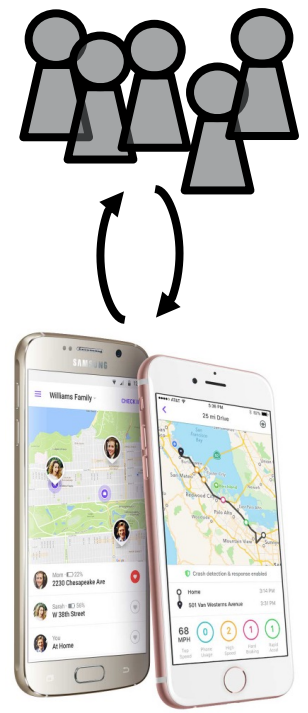
social relations
(inter)personal norms
emotions
goals
personal values



individualization



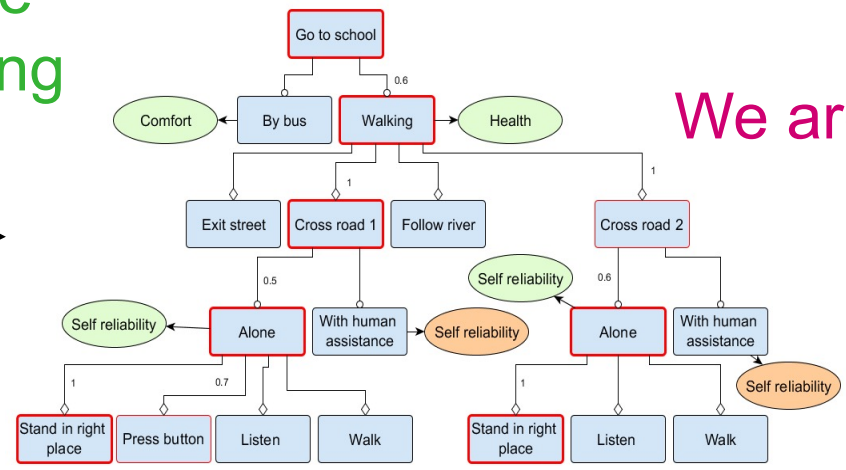
Interactive Machine Reasoning



personalization



Responsible Agency:
shape machine agency
around human agency



We are not our data!

Semantic User Models

[conversation between me and a colleague shortly before 17:00 on Thursday]

B: could you work on the draft tomorrow? I can make a first version today.

C: no, I'd rather make the draft today.

B: I thought you don't work after 17:00?

C: yes, but today I had a long lunch break and tomorrow I have a day off.

B: ok, I need to take a break now, can you then make a draft and I finish it later today?

C.: ok.

From: the tenderness project

tender

to care, to be sensitive, to tend, to exchange



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DIGITAL SOCIETY
INSTITUTE



Dr. Malte Kliess



Dr. Myrthe Tielman



Pei-Yu Chen



Esther Kox



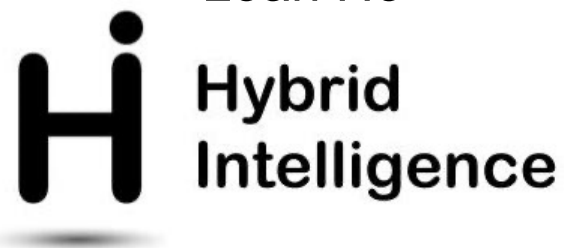
- Catholijn Jonker
- Dirk Heylen
- Marielle Stoelinga
- Pradeep Murukannaiah
- Michael Winikoff
- Victor de Boer
- Stefan Schlobach
- Peter de Vries
- José Kerstholt
- Zdenek Mikovec



Ilir Kola



Loan Ho



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