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› FOR SOCIETY

WELCOME

Ethics and technology

Why it is important to think about the impact of technology on humans and society

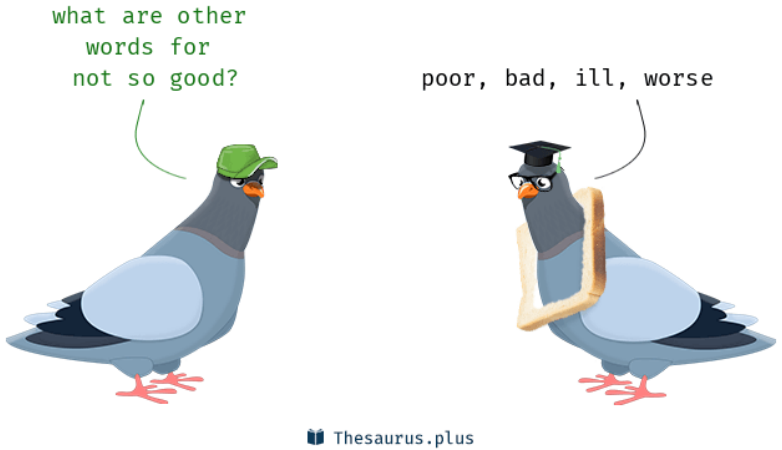
(and how to put those thoughts to action!)

Presentation for HBO-i Docentenevent 8 okt 2021
Jo-An Kamp, Fontys school of ICT

Assignment

- I will show you a video prototype from a first year IMD student
- Please write down everything you see that can be explained as either *good* or *not so good* (for now and in the future)

(The video is 2.30 minutes long. Prepare for a quick shout out afterwards. Let's go!)



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Recap: Shout out

"The more Artificial Intelligence enters our lives, the more essential Ethics & Philosophy become."

(THE AI THOUGHT BOOK)

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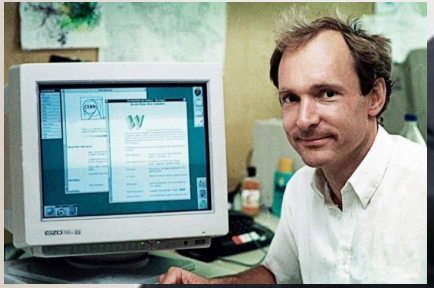
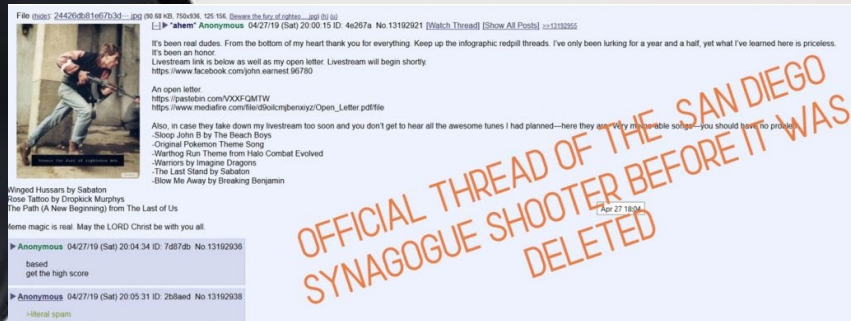
Avoid becoming a ‘tech regret’





OFFICIAL THREAD OF THE SAN DIEGO SYNAGOGUE SHOOTER BEFORE IT WAS DELETED

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Jo-An Kamp


Techno
philosophy
Think before you choose.
BRON
BLABLABLA
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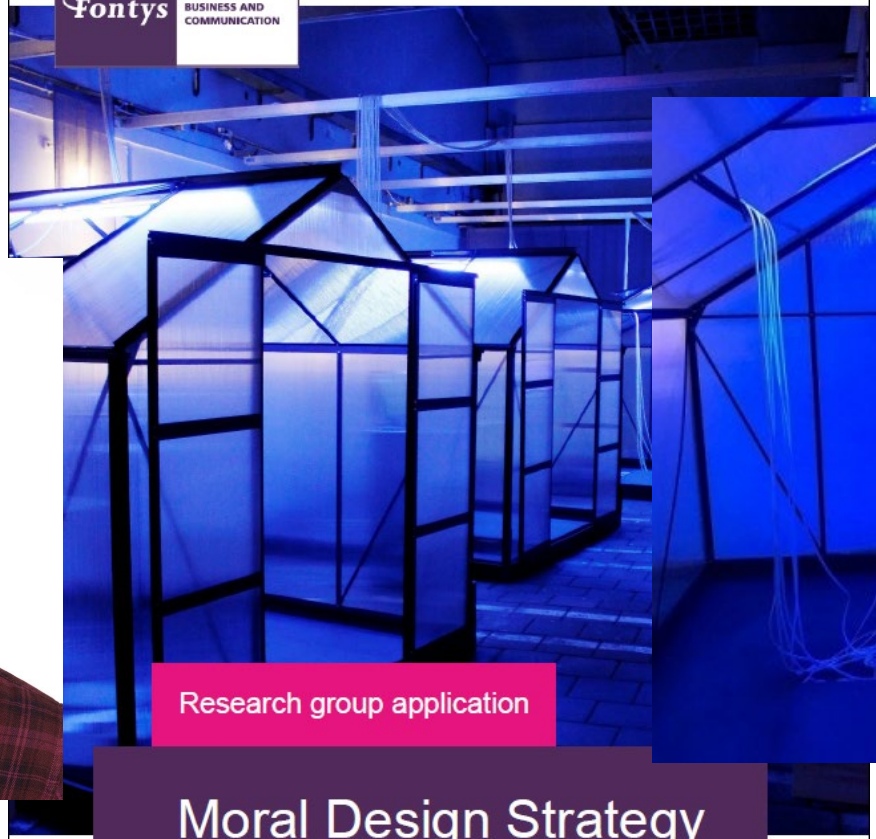
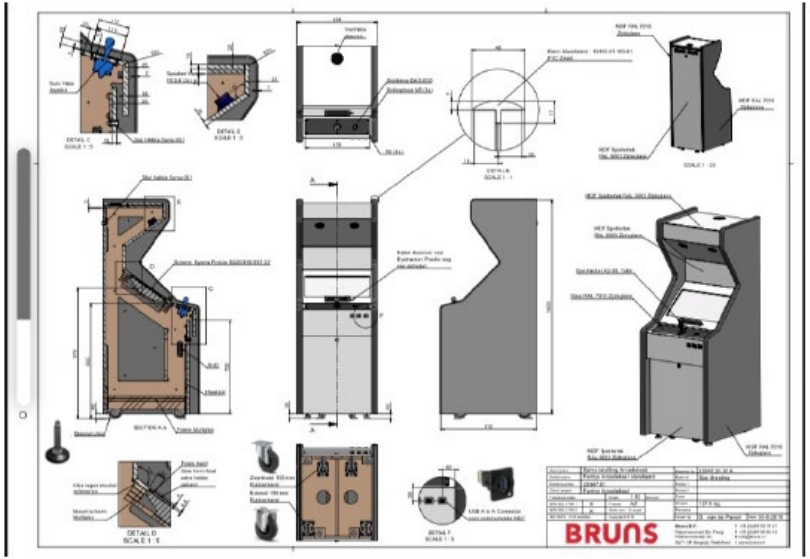
SCHOOL OF BUSINESS AND COMMUNICATION



Research group application

Moral Design Strategy

Designing a (mobile) moral lab



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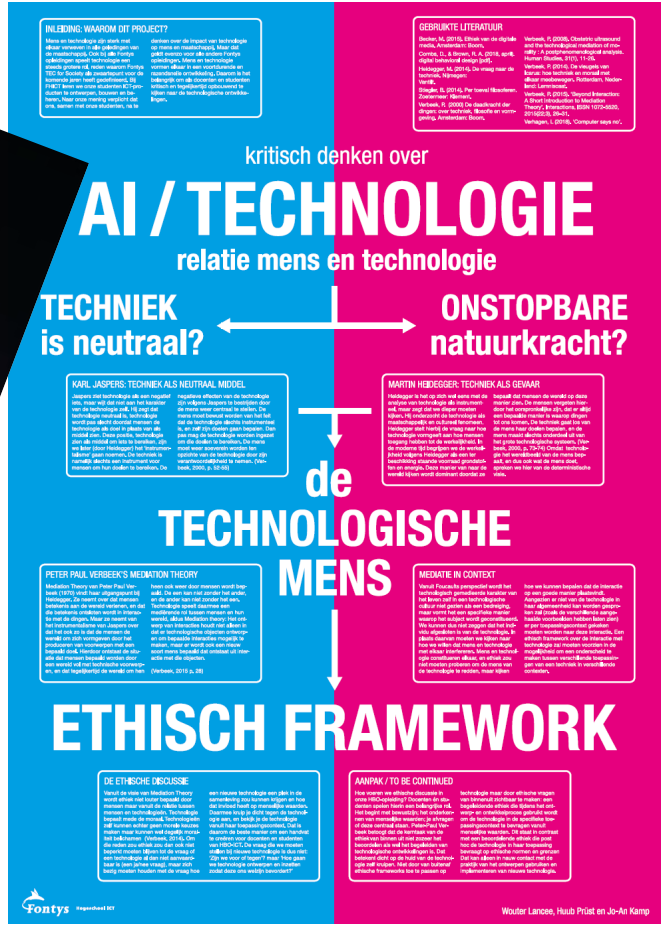

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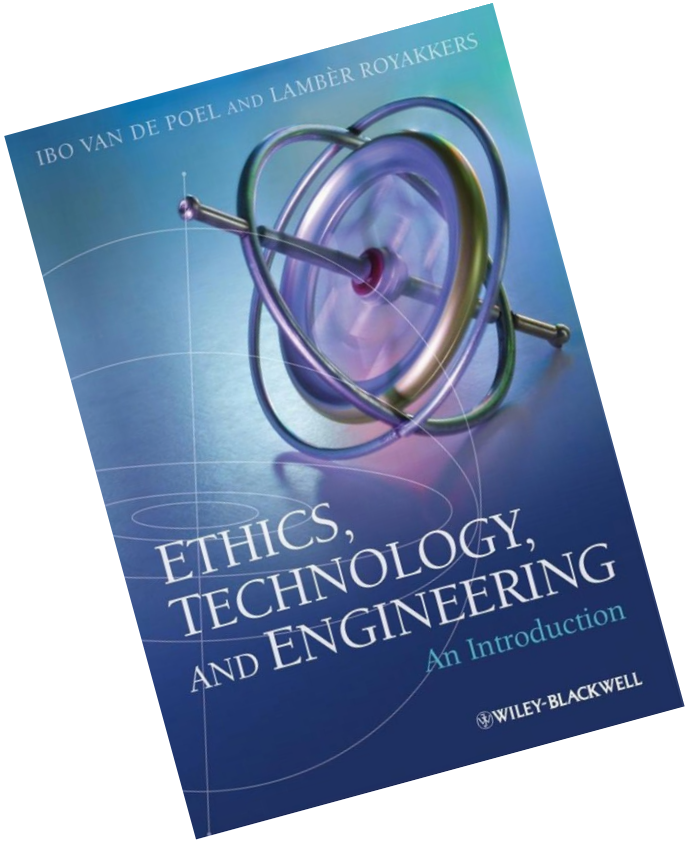

Introduction

One of the **main differences between science and engineering is that engineering is not just about better understanding the world but also about changing it.** Many engineers believe that such change improves, or at least should improve, the world. In this sense engineering is an inherently morally motivated activity.

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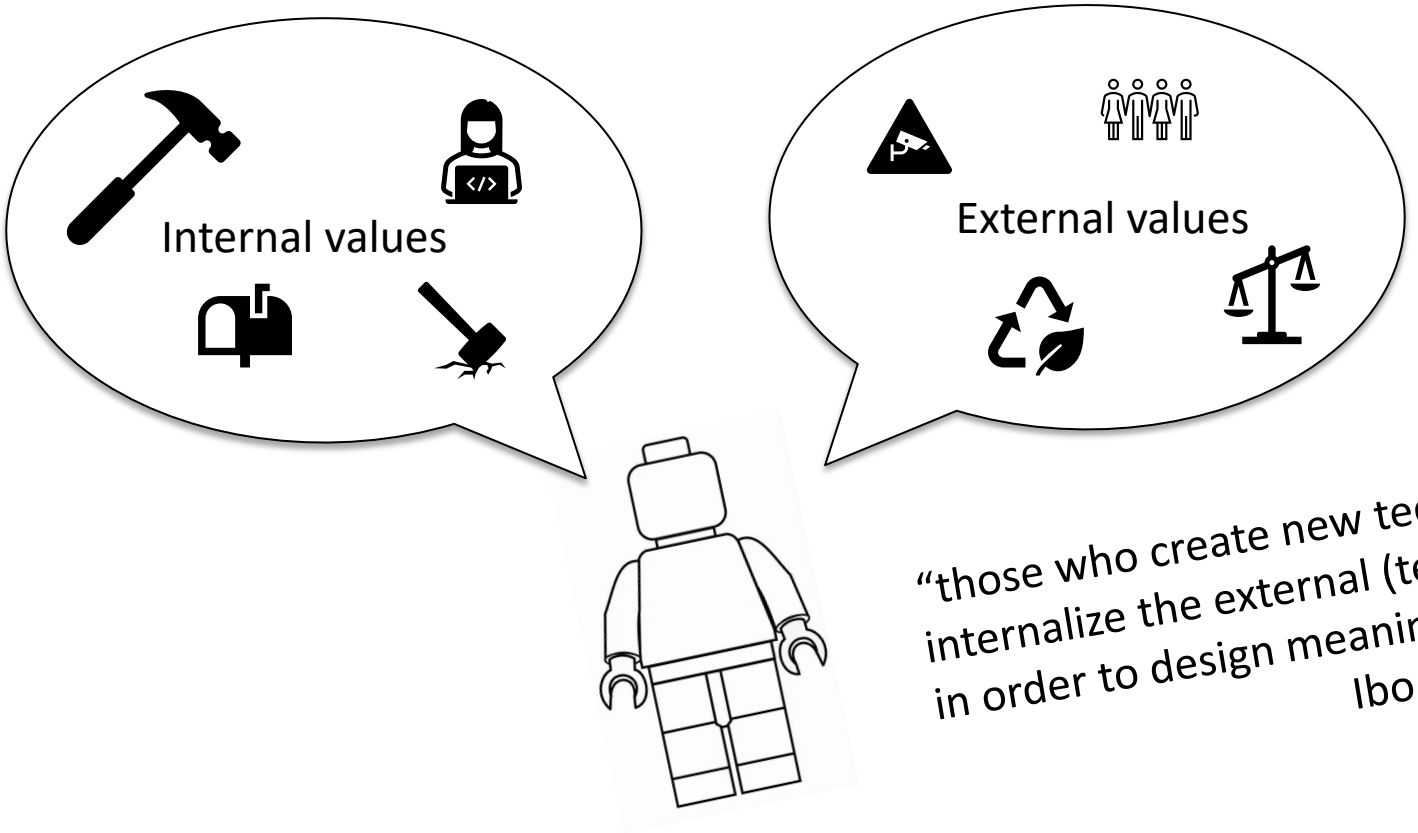
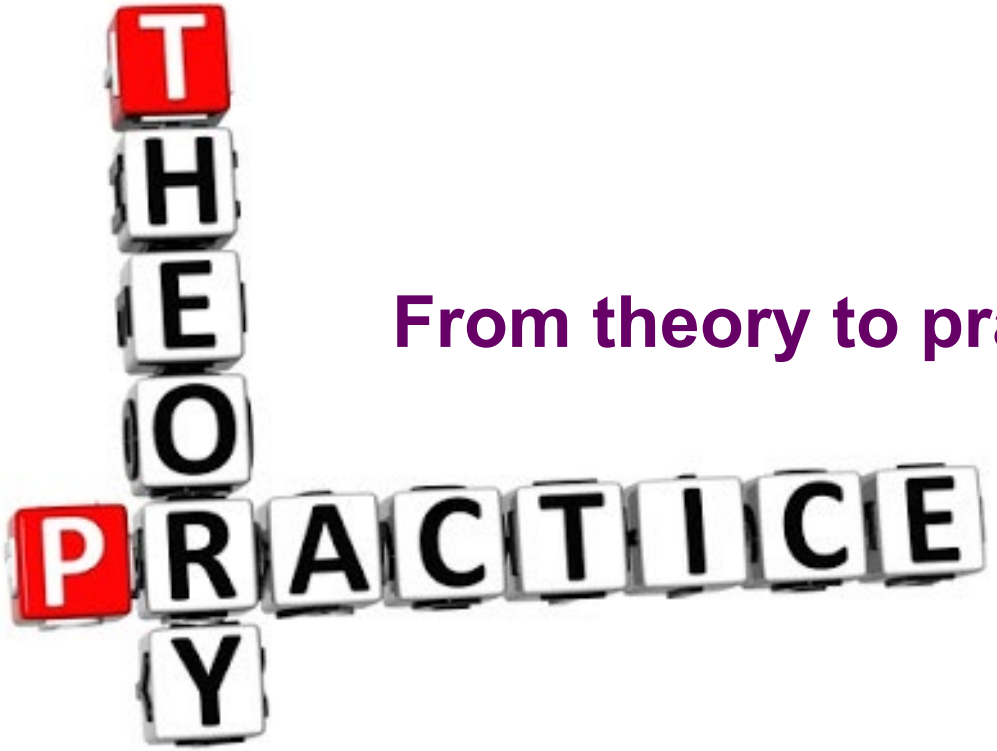
Engineers have a natural tendency towards internal values



"those who create new technology should internalize the external (terminal) values in order to design meaningful innovation"
Ibo van de Poel, 2015



From theory to practice…

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ETHICAL OS

AN ETHICAL TOOLKIT FOR THE DEVELOPMENT OF AI APPLICATIONS

The designed ethical toolkit, in the form of a "full-day" modular workshop, assists in the generation of ideas and supports dialogue for an ethical development of AI applications. Furthermore, its seven modules provide a basis for discussion, trigger solutions, and visually communicate the topic of AI ethics to development teams and clients in a creative and collaborative fashion.

STAGE 1 - ETHICAL ALIGNMENT

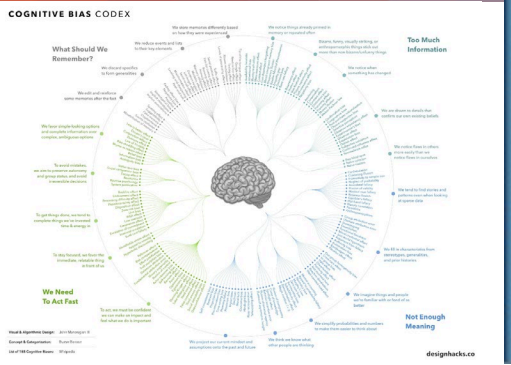
- Ethics & [A]I Mini-workshop
- The Evil In [A]I Game

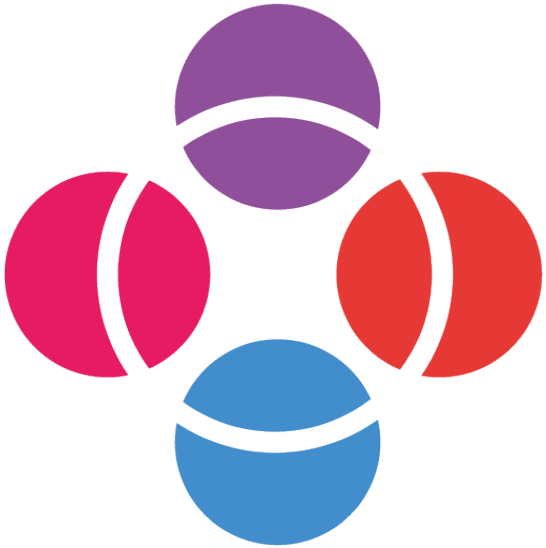
STAGE 2 - PROJECT VISION & VALUES

- AI Project General Checklist
- The Responsible Artificial Intelligence Deck
- Ethical Risks Cards
- Ethical Evaluation Axes

STAGE 3 - MORAL CODE OR BEST PRACTICES

- Moral Code of the Project





TICT

Technology Impact Cycle Toolkit

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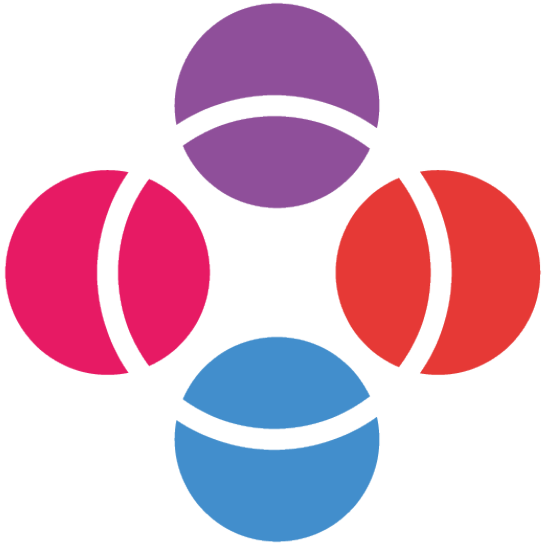

TICT

A FREE TOOLKIT THAT HELPS USERS TO MAKE BETTER DECISIONS ON THE IMPACT OF TECHNOLOGY

WWW.TICT.IO

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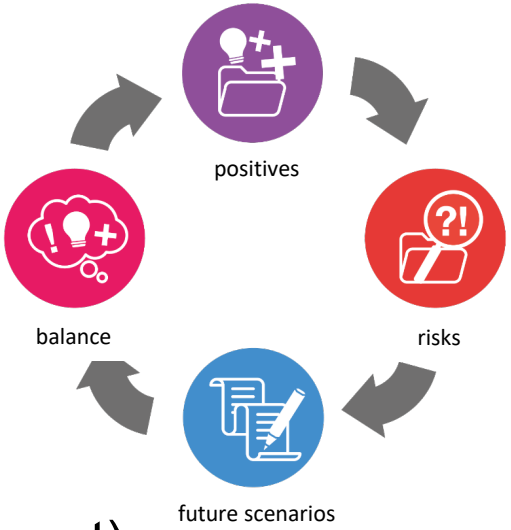
a TEC4Society project
in friendly coorporation with
FONTYS
HRM EN TOEGEPASTE PSYCHOLOGIE
Fontys
HOGESCHOOL ICT
FONTYS
JOURNALISTIEK
JURIDISCHE HOGESCHOOL
Avans & Fontys

TICT

Starting points while developing the tool:

1. Technology = multidisciplinary
2. Ethics as a driving force for innovation
3. Non-judgmental (you can be as good/evil as you want)
4. Part of the (design cycle) process
5. Context is king



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How is your technology going to solve the problem?

Questions, a lot of questions…

How does the technology influence the user(s) ability to make his own decisions?

What is the effect of the technology on the health and/or wellbeing of the user(s)?

Did you consider future impact?

Is there any recourse for people who feel they have been incorrectly or unfairly assessed?

What impact is expected from your technology?

Did you consider all stakeholders, even the ones the might not be your user or target group, but still might be of interest?

Is your technology fair for everyone?

Did you make any changes to the design of your technology because of these questions?

In what way is your technology contributing to a world you want to live in?

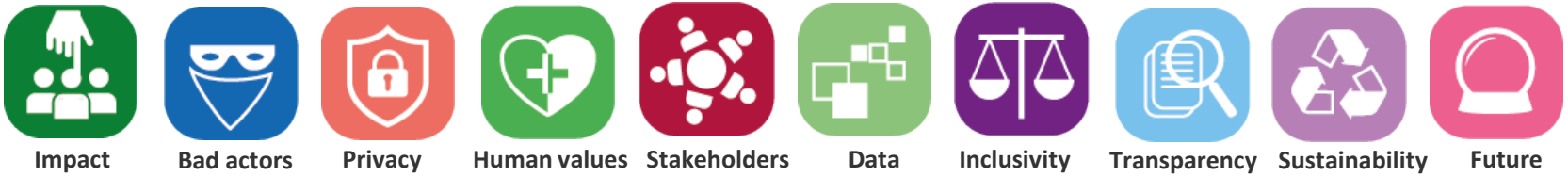
In what way do you consider the fact that data is collected from the users?

Is your technology environmentally sustainable?

Does your technology have a built in bias?

How could bad actors use your tech to subvert or attack the truth?

In which way can you imagine a future impact of the collection of personal data?

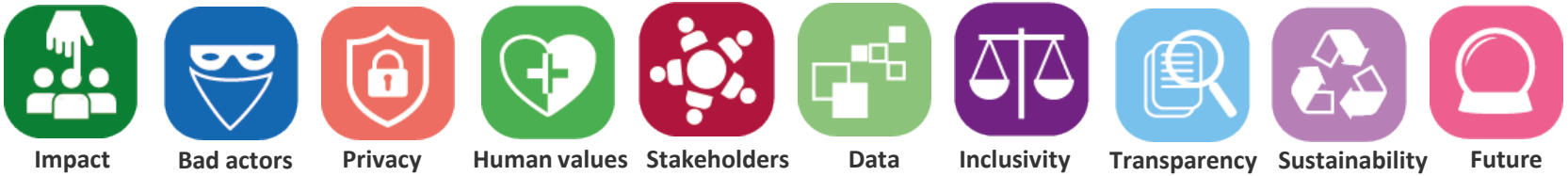


The most important question (at the end of each categorie)

Is your technology fair for everyone?

Did you make any changes to the design of your technology because of these questions?

What impact is expected from your technology?



What impact is expected from your technology?

Impact on society

Importance: Very important
Quality: Very good

What can bad actors do with your technology?

Hateful and criminal actors

Importance: A lot
Quality: Very good

Are you considering the privacy & personal data of the users of your technology?

Privacy

Importance: Very important
Quality: Can be better

How does the technology affect your human values?

Human values

Importance: Very important
Quality: Good enough

Have you considered all stakeholders?

Stakeholders

Importance: A lot
Quality: Good enough

Is data in your technology properly used?

Data

Importance: A little
Quality: Good enough

Is your technology fair for everyone?

Inclusivity

Importance: A lot
Quality: Good enough

Are you transparent about how your technology works?

Transparency

Importance: A lot
Quality: Good enough

Is your technology environmentally sustainable?

Sustainability

Importance: Not important
Quality: Good enough

Did you consider future impact?

Future

Importance: A little
Quality: Good enough

Fast impression of the impact on a canvas

Quick Scan

Summary of improvements on a canvas

Improvement Scan

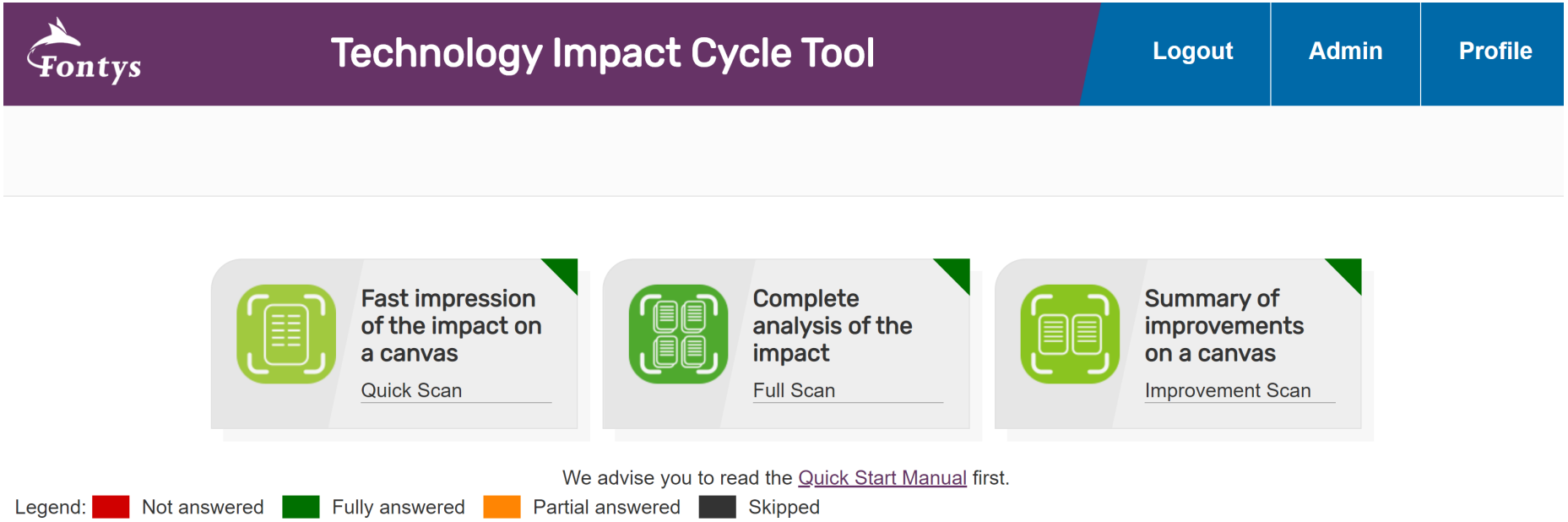
We advise you to read the Quick Start Manual first.

Legend: Not answered | Fully answered | Partial answered | Skipped

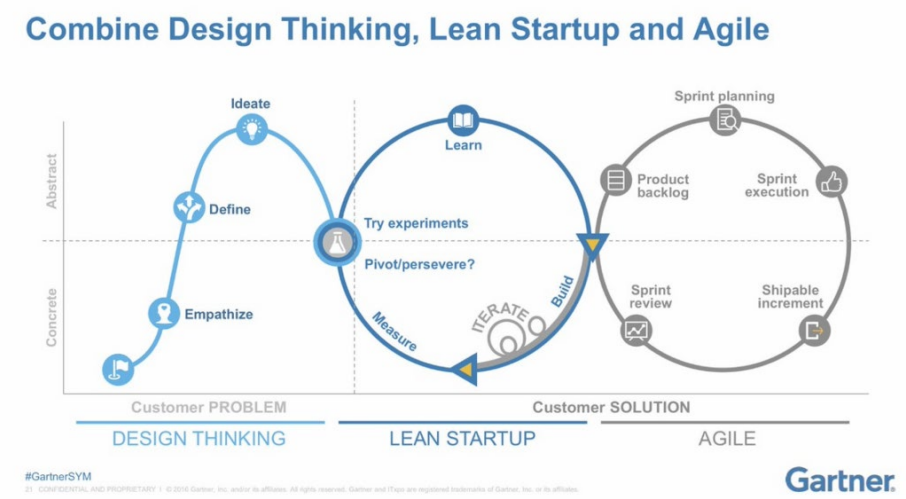
Do the best you can until you know better.
Then when you know better, do better.

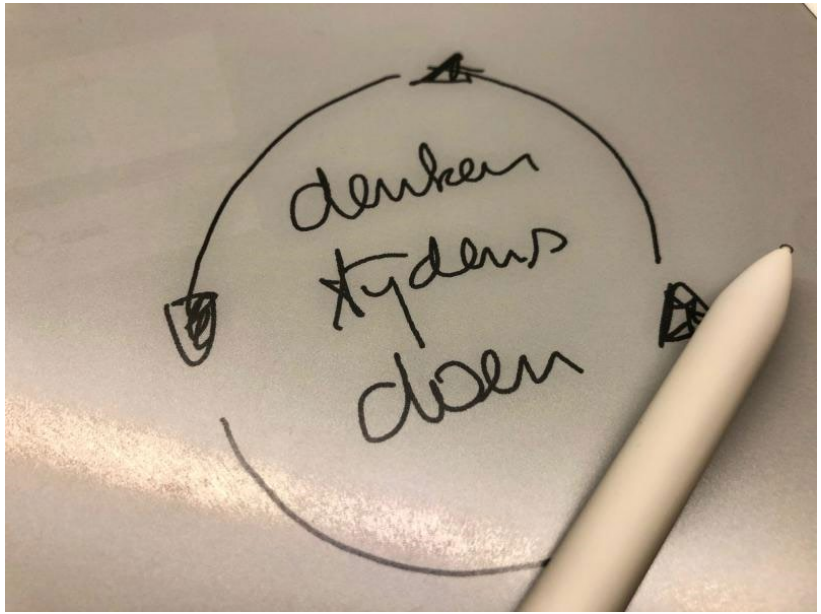
Maya Angelou

Quick / Full / Improvement Scan



Cycle: in all stages of the process





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Corona App(athon) in TICT (v1.0)

Corona App (in Dutch!)

Hypothetisch: De corona app is een mobiele applicatie die helpt om besmettingen met corona in kaart te brengen. De app werkt op basis van bluetooth. Telkens als jouw telefoon bij een andere telefoon in de buurt is (met de app) volgt een digitale begroeting. Als jij dan later besmet raakt, krijgt iedereen die in een bepaalde periode bij jou in de buurt is geweest een melding. Dat gebeurt volledig anoniem. De data wordt centraal verzameld om meldingen te kunnen versturen en patronen te kunnen analyseren. Het doel van deze app is om (in afwachting van een vaccin) de verspreiding van het virus verder te vertragen en zo de grenzen van de capaciteit van de gezondheidszorg te borgen. Let op: deze cyclus focust zich op de eerste van de twee geplande Apps: de zogenoemde contactonderzoek-App op basis van BlueTooth. De opvolging van deze App, de gezondheidsmonitorings-App, is voer voor een nieuwe TICT cyclus. Maak deze gerust aan als je hier ideeën over hebt of je gedachten hierover wilt toetsen. Dat geldt ook voor apps die als doel hebben om mensen in quarantaine te houden.

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Corona Contact Tracing App in TICT (v2.0)

Corona Contact Tracing App

This is an analysis of the Dutch corona contact tracing app (CCTA). The CCTA is a mobile application that helps to map corona infections. The app works on the basis of bluetooth. Whenever your phone (with the CCTA) is near another phone (with the CCTA), a digital 'handshake' follows. If you become infected later, everyone who has been in your area during a certain period can be notified. The app works completely anonymously. A random number is generated and shared, numbers are deleted after a certain period of time. You can only indicate that you are infected with a special code from the health service (GGD). The data is collected centrally to be able to send reports and analyze patterns. The purpose of the CCTA is to further slow down the spread of the virus (while awaiting a vaccine or effective treatment) and thus safeguard the limits of the health care capacity. The CCTA is part of a large set of measures like washing your hands, 1.5 meters, getting tested and staying at home when you have symptoms.

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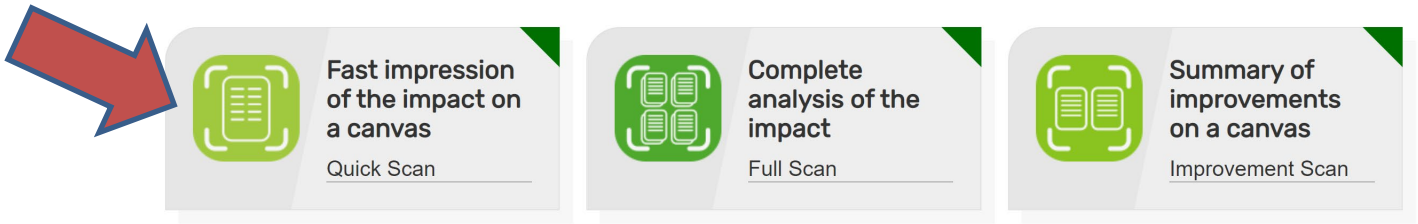
Workshop assignment

- Take a look at the case(s) you are working on at the moment
- Decide which one might have an ethical aspect in it

A. Perform a quick scan together with your team mates (discussion allowed!)

B. Or start with the first categorie: impact on society and answer all the questions there

- Do (part of) the full scan if you have time left



TIP: You can print it as a PDF and attach it to your (group)documentation!

(I will walk around and guide you)

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Pro-tip: Start with a small cycle

Categorie: impact on society

- What is the challenge at hand?
- What problem do you want to solve?
- Are you sure you are solving the right problem?
- How is the technology going to help you here?
- What positive or negative effects can you expect?
- What about the users?
- Is this product contributing to a world you want to live in?
- Can your product be better desgned? What improvements do you want to make?

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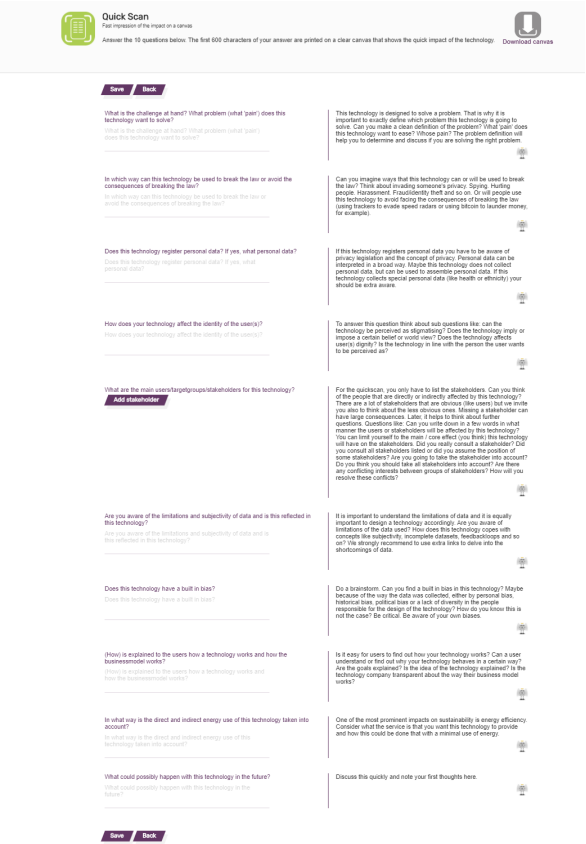
Quickscan: fill it in online or use a (printed) Canvas



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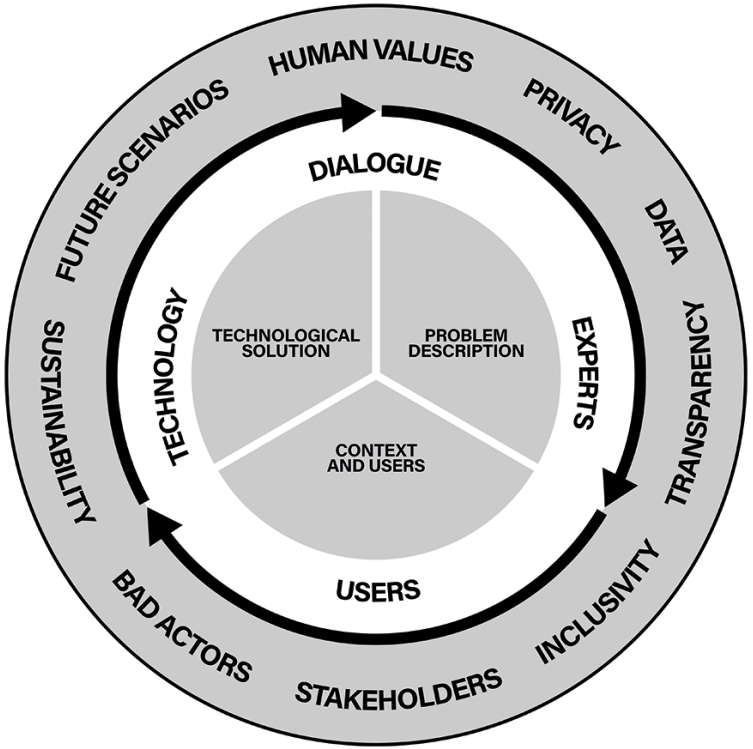
Pro-tip: later on, go further with an extended cycle

Categorie: impact on society + all the categories in the biggest cycle



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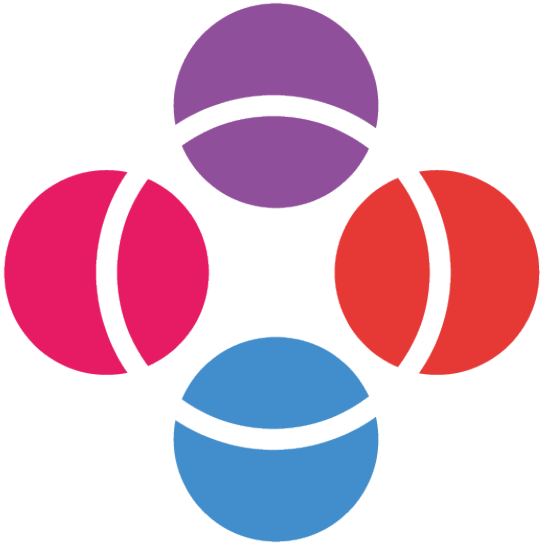
Do the best you can until you know better.
Then when you know better, do better.

Maya Angelou



TICT

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Go!

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THANKS FOR LISTENING!

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