Data Sharing in education, training & learning the Ethical & Legal side

Deep dive session 1 14/05

Agenda

Welcome

The Legal side of Data Sharing

Q&A

Break

The Ethical side of Data Sharing

Q&A

Wrap-up

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Join at slido.com
#2596443

ⓘ Start presenting to display the joining instructions on this slide.

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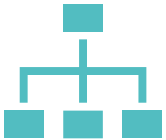
What is your name?

ⓘ Start presenting to display the poll results on this slide.

RECAP KICK OFF

DESIRED OUTPUT



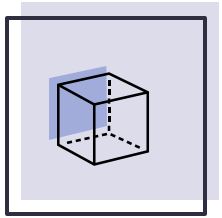
MAPPING OF THE FIELD

STEPPING STONES TOWARDS COLABORATION

USE CASES

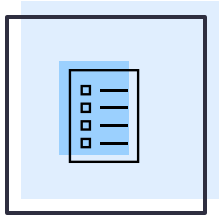
RECAP KICK OFF

THREE BUILDING BLOCKS FOR DATA SHARING



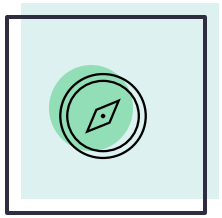
Ecosystem

Industry, sector or societal level that set-up a data sharing initiative



Project

A group of related use cases that could lead to concrete data sharing



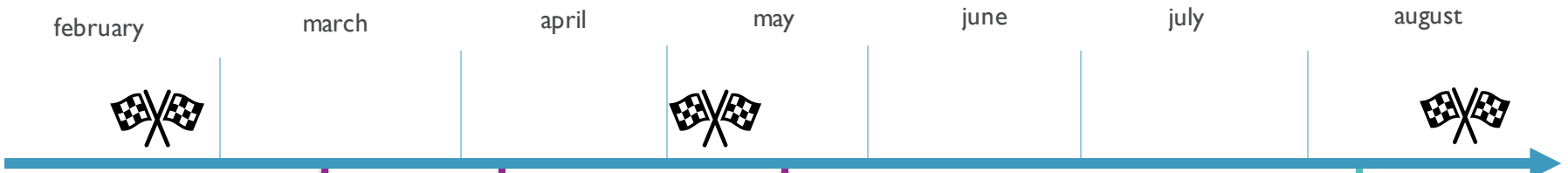
Use case

A relevant problem to solve, where data sharing is a key enabler

Setup of a 'Living Lab' to co-create, test and validate a use case

TIMELINE

WHAT HAVE WE BEEN (AND WILL BE) DOING?



KICK OFF
Demysitifying data (spaces) in education, training & learning

1-1 workshops
Wave 1

Event 1
Solid symposium

Session 1
Data sharing: the ethical & legal side

1-1 workshops
Wave 2

Session 2
Data sharing: data ownership, data sources, data interoperability

Event 2
BDSA Day
Data sharing: data ownership, data sources, data interoperability

1-1 workshops
Wave 3

Session 3
Governance of data sharing: business value & business models

DISSEMINATION

Session 4
Data sharing: recap & next steps

LESSONS LEARNED

USE CASE CHECKLIST

- ✓ Giving ownership to the individual at the center of the data sharing
- ✓ Stemming from a real need, validated by the involved stakeholders
- ✓ Building upon existing capabilities and assets
- ✓ Ensuring there is a sustainable business model that fits with strategic stakeholder goals
- ✓ Collaboration of a minimum of 3 parties
- ✓ Connection between fields of (K12) education, training & (lifelong) learning

PRELIMINARY USE CASES

WORK IN PROGRESS

STUDENT FLOWS TRACKING

DYNAMICALLY UPDATED SKILL PROFILES

PREVENTION OF ONLINE ADULT EDUCATION DROPOUT

META DATING ENHANCEMENT OF SKILLS, COURSES, DEGREES AND JOBS

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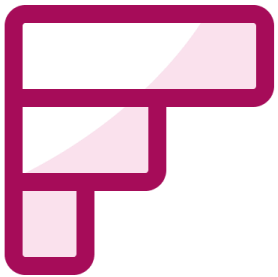

How would you rank these use cases from most relevant to least relevant for your organisation?

ⓘ Start presenting to display the poll results on this slide.

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What is the biggest challenge for your organisation regarding legal aspects of data sharing?

ⓘ Start presenting to display the poll results on this slide.

The legal side of data sharing in education, training & learning

Michiel Fierens

Doctoral researcher

Semantic data interoperability & data protection

KU LEUVEN CiTiP
CENTRE FOR IT & IP LAW

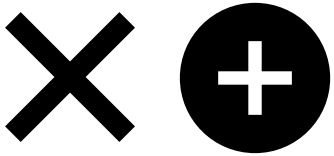
UNIVERSITEIT GENT

The legal side of data sharing in education, training & learning

Children require specific protection with regard to their personal data as they may be less aware of the risks, consequences and safeguards concerned and their rights in relation to the processing of personal data

The legal side of data sharing in education, training & learning

‘Children’ as heuristic tool to interpret GDPR

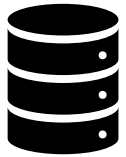
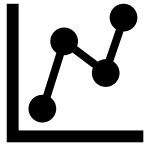


No list of additional obligations

- Interpretation of e.g., purpose, legal base

- Additional safeguards (DPIA)

The legal side of data sharing in education, training & learning

1. General use: key-takeways for data use under the GDPR 
2. Specific use: key-takeways for data use and AI systems 
3. Useful resources and further literature 

The legal side of data sharing in education, training & learning

General use: key-takeways for data use under the GDPR

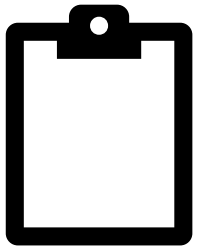
- Purposes for processing personal data
- Roles and responsibilities
- Lawful base
- Transparency obligations – Accountability

The legal side of data sharing in education, training & learning

Use of Google Workspace in EU

- Terms of service
- Core services vs additional services
- Distinction between customer data and service data

Conducting a 'well-being' survey without parental consent via a software application



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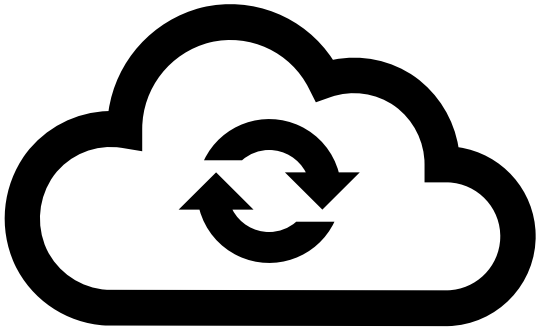
Purpose limitation

The legal side of data sharing in education, training & learning

Roles and responsibilities within the ecosystem

- *Google Workspace Netherlands*
  - Privacy-friendly default settings (no spill-over of data)
  - Processor-versions of Chromebooks and Chrome browser (e.g., diagnostic data)
  - Controllership for additional services
- *Google Workspace Belgium*
  - September 1, 2024 - Netherlands as a minimum
- *Google Workspace Denmark*
  - Expectation of breaching processing agreement



e.g., cloud providers

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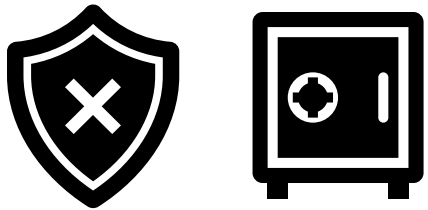
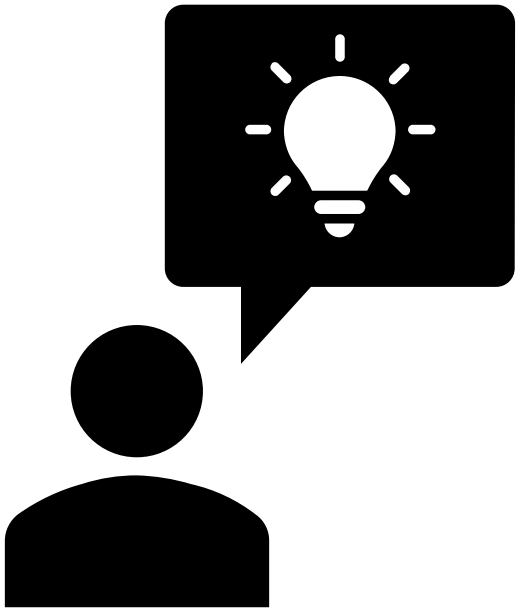


No data ownership but …

- Empowering users ('control')
  - ❑ No absolute rights
- Protection of data holders (investments, trade secrets)
  - ❑ Regulating B2B data sharing (contractually)
- Promoting competition (portability to third parties)
  - ❑ Rules on data access

The legal side of data sharing in education, training & learning



No data ownership but …

Microsoft Office 365 cases and the push for data sovereignty

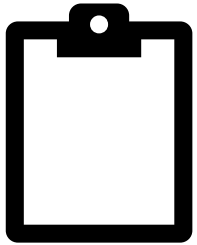
- ❑ Preventing transmission of certain data
- ❑ Compliance with European and national laws
- ❑ Room for negotiation
- ❑ ~ Certification?

The legal side of data sharing in education, training & learning

Lawful base

Public interest vs legal obligation

Parental consent (additional services)

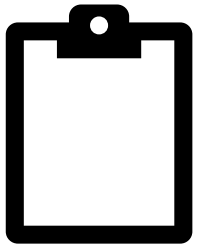


No legal obligation to do survey "in that particular form" (data minimisation)

Software application used to conduct survey qualifies as "ISS"

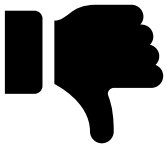
The legal side of data sharing in education, training & learning

Transparency & accountability



Oral, fragmented

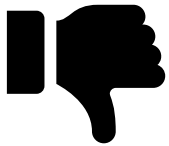
Clear and simple for minors



System configuration

Logging

Privacy statement & school rules



The legal side of data sharing in education, training & learning

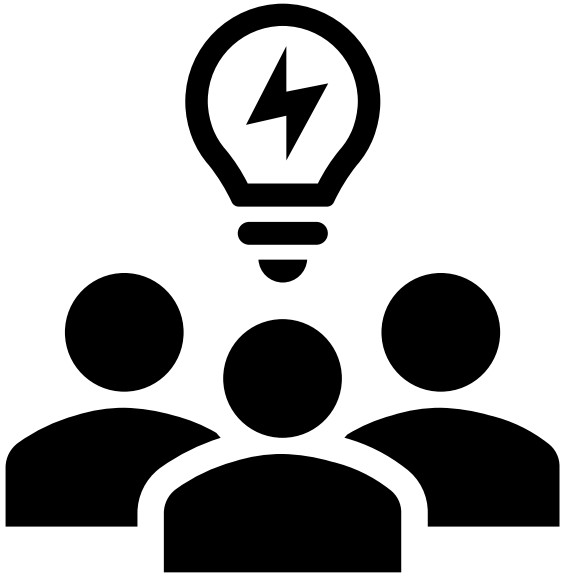
Document reasoning!

- Case-based, context-based
- Vulnerable data subjects
- Mitigation strategies

Never 100 per cent certainty, get advice!

Exchange best practices!

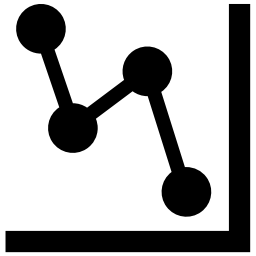
- No consent when power imbalance (core operations & genuine alternative)
- No legitimate interest as a school (unless free non-subsidised education)
- **Creativity!** (Visualisation & minimum legal jargon)

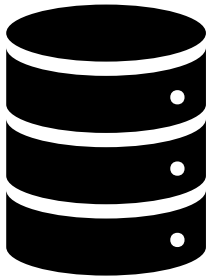


The legal side of data sharing in education, training & learning

Specific use: key-takeways for data use and AI systems

- Predictive learning
- Points of attention
- AI Act
- Additional reflection





The legal side of data sharing in education, training & learning

Predictive learning

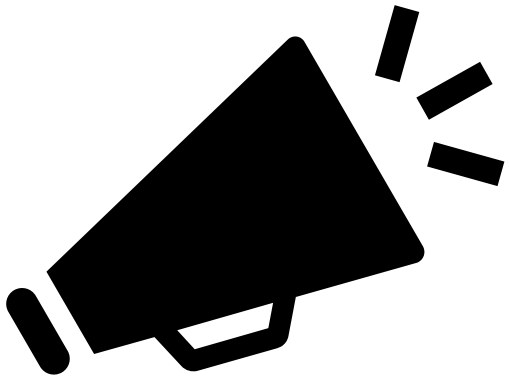
- ✗ Student administration and tracking system
- ✗ Adaptive exercices
- ✓ PLA (profiles)
  - Creation of specific learning path
  - Evaluative and predictive elements

The legal side of data sharing in education, training & learning

Points of attention

Automated individual decision-making (GDPR)

- Fully automated individual-decision making based on explicit consent
- No absolute prohibition of AIDM regarding children
- GDPR principles & lawful bases



Discriminatory outcome (lawfulness, fairness, CRC)

- Less data about minorities?
- Value-loaded data?
- Non-discriminatory design with discriminatory outcome?

The legal side of data sharing in education, training & learning

AI ACT

Provider

Deployer

Layered risk-approach

Significant harm – exploiting vulnerabilities

High-risk (education)

Risk management, quality management, documentation

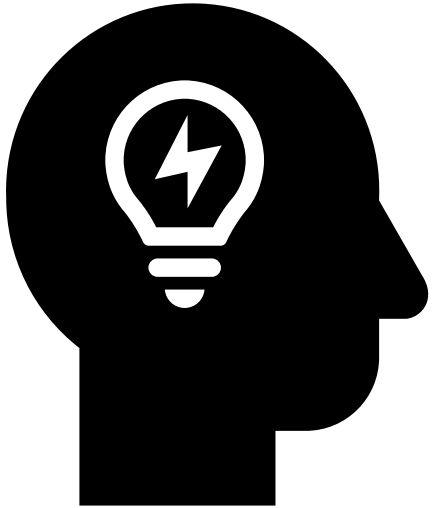
Conformity assessment

Fundamental Rights Assessment (public bodies)

The legal side of data sharing in education, training & learning

Document reasoning!

<-> childhood as period of experimentation (child's best-interest)
<-> excessive parental oversight (breach of right to privacy)
<-> bias & reinforcing poor pedagogical practices
<-> overly restrictive approach to risk



Never 100 per cent certainty, get advice!

Exchange best practices!

<-> Datafication & long-term impacts of technologies
<-> Aggregated profiles & collective harms

The legal side of data sharing in education, training & learning

Useful resources and further literature

- Case law via GDPRhub
- Interpretation of GDPR via EDPS Opinions
- Questions and recurrent themes via GBA
- Implementation and future vision AI Act via Digisprong & KDM

The legal side of data sharing in education, training & learning

- BIK+ platform and national SICs
  - Digital education action plans
  - Digital literacy
    - Gamification
  - Betternet

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What questions do you have about the legal side of data sharing in education, training & learning?

ⓘ Start presenting to display the poll results on this slide.

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What insight from this presentation can you use in your own organisation?

ⓘ Start presenting to display the poll results on this slide.

Let’s have a (coffee) break!

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What are the best practices in your organisation to take ethical aspects into account when sharing data?

ⓘ Start presenting to display the poll results on this slide.

Responsible Edtech

Ethics and stakeholder participation

Edtech BDSA working group
14 May 2024
Marco Houben

Knowledge Centre Data & Society

Artificial Intelligence Flanders

Introduction

Marco Houben

Doctoral researcher

Vrije Universiteit Brussel/ Universiteit Hasselt

Knowledge Center Data and Society

Responsible AI in education

Knowledge Centre Data & Society

Artificial Intelligence Flanders

Ethics

Ethics and responsible technologies

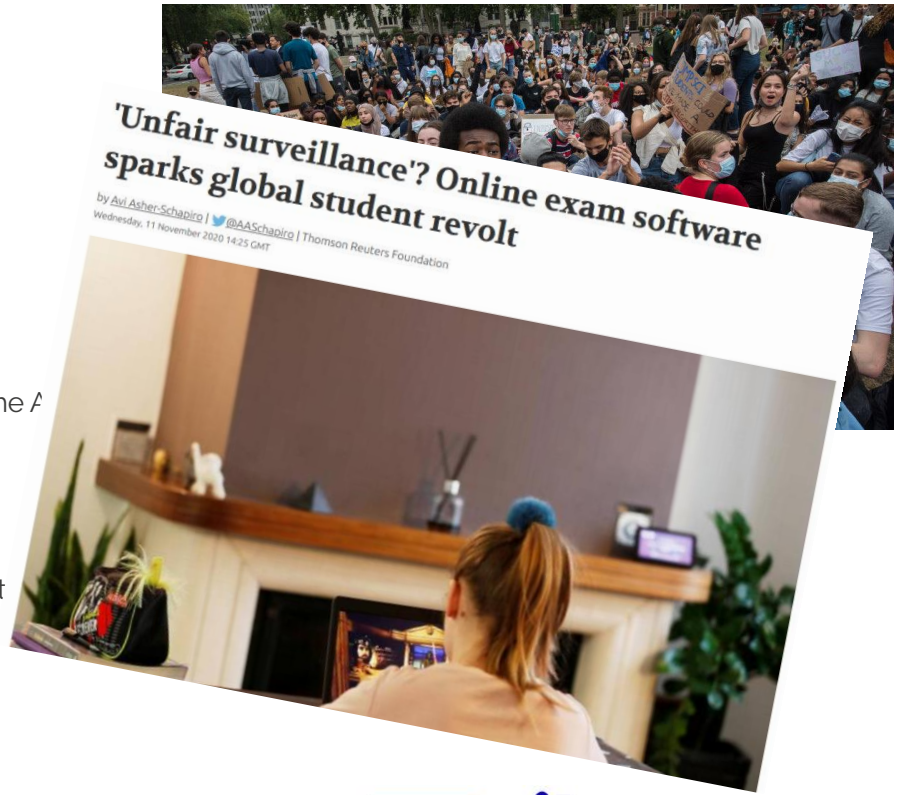
Stakeholders increasingly held accountable

- Ethical, Legal and Social Aspects
- What is ethics?
- Why? Benefits of doing ethics
  - Trust and adoption
  - Fosters innovation and creativity
  - Potential for new business models

Ethics and responsible technologies

Potential cost of not doing ethics

- Lack of trust and adoption
- Reputational damage
- Legal consequences
- That's why some systems for education are 'high risk' in the A
  Act (or forbidden)
  - Evaluate learning outcomes
  - Steer the learning process
  - Assess appropriate level
  - Monitor and detect prohibited behaviour during test



Ethics guides

A vast and growing number of steering visions, guidelines and principles

- Vision text responsible AI in education in Flanders
  - Key conditions and action points
- Guidelines on the use of AI in education (EU)
- Both rely on principles for Trustworthy AI

- https://www.vlaanderen.be/publicaties/verantwoorde-ai-in-het-vlaamse-onderwijs-een-collaboratief-proces-van-ontwikkeling-tot-gebruik-visietekst
- https://op.europa.eu/nl/publication-detail/-/publication/d81a0d54-5348-11ed-92ed-01aa75ed71a1

Ethical principles for trustworthy AI

Highly abstract principles

- Key requirements trustworthy AI
  - Fundamental (children's) rights
  - Resilience to attack, security, reliability
  - Quality and integrity, access to data
  - Explainability, communication
  - Avoidance bias, stakeholder participation
  - Respect to democracy, ecology, society
  - Auditability, minimization negative impact
- How to operationalize this?

https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai

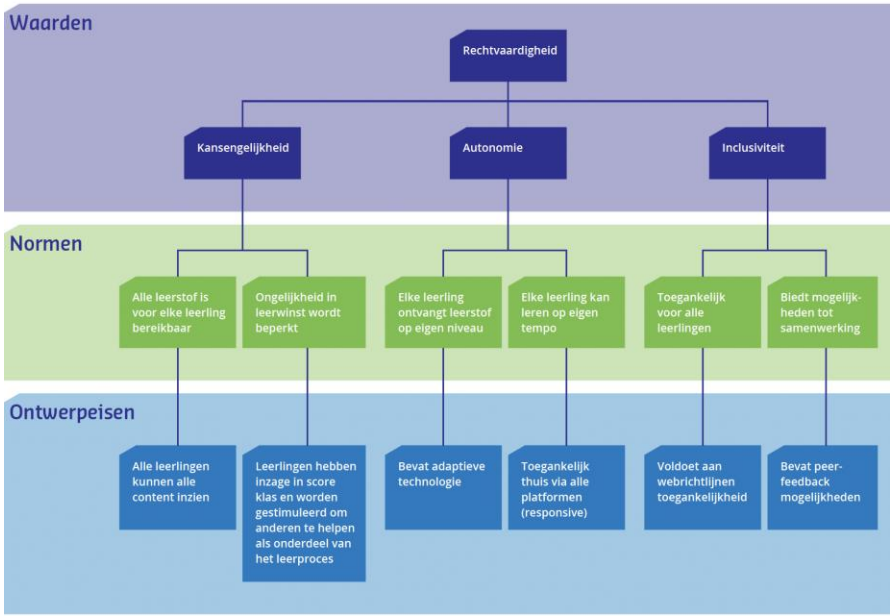
Developing ethical edtech

Ethics by design is essential

- Tools & methods excist, but which to choose?
  - Privacy by Design strategies
  - https://data-en-maatschappij.ai/
- Methods categorized in software development process
  - https://tinyurl.com/appliedaiethics
- Operationalisation ethical principles remains very difficult
  - Plurality and subjectivity of ethics ..
  - … while developers “more used to scenarios where there is at least a seemingly quantifiable relationship between input and output”.
- One example:: from principles to requirements

Developing ethical edtech

Ethics by design - requirements



https://www.kennisnet.nl/tools/ethiekkompas/

Developing ethical edtech

Ethics by design is essential

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- One example:: from principles to requirements
- Second example: stakeholder participation ('get to know the ethics')

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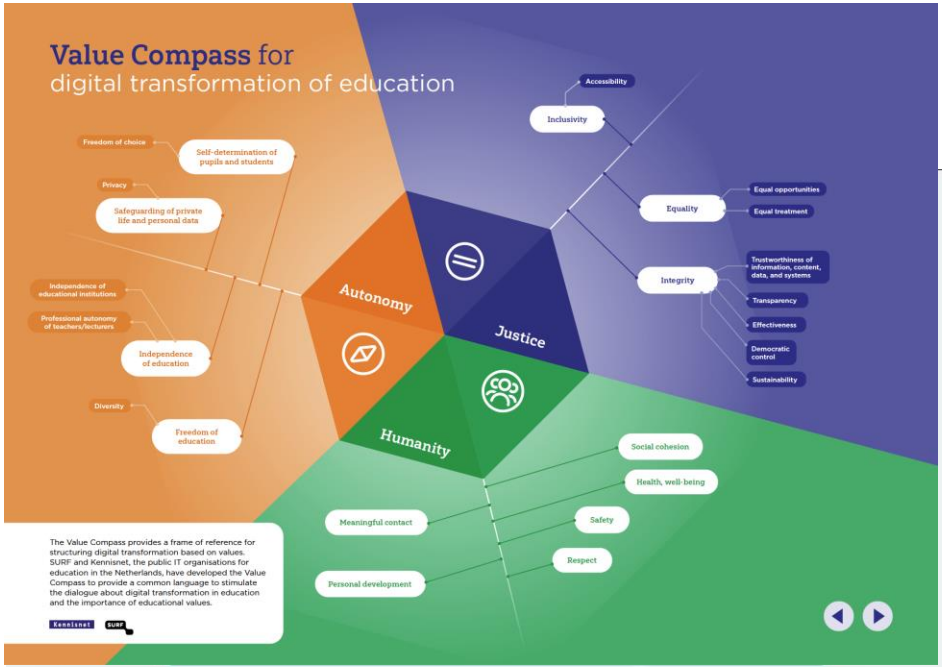
Stakeholder participation

Guidance ethics

'Guiding' technologies

- Control dilemma, mediating tech
- Concrete technologies
- Actors
- Positive and negative effects
- Values (see similarity principles)
- Action points
  - Technology
  - Environment
  - User



https://ecp.nl/publicatie/guidance-ethics-approach/

Case study: Smart Signal (Smartschool)

‘Guiding’ technologies

- Amai!-project

- Functionality for early detection of learning difficulties, based on data in the Smartschool platform
- Citizen Science (stakeholder participation)
- Expert interviews
- Two rounds of workshops

https://www.youtube.com/watch?v=9YiSyUYeFi8

Smart Signal Smartschool

Workshop 1: Know the ethics

- 5 workshop, 46 participants
- 312 actors (12 categories)
- Extensive list of positive and negative effects of the Smart Signal

Positive

Bevordert efficiency en effectiviteit

Geeft inzicht en bewustwording

Ondersteunt leerling (algemeen)

Ondersteunt school (algemeen)

Werkt motiverend

Negative

Verhoogt werkdruk en stress

Tast privacy aan

Verhoogt kans op verkeerde diagnoses

Vermindert efficiency en effectiviteit

Werkt demotiverend

Smart Signal Smartschool

Workshop 1: Know the ethics

- 5 workshop, 46 participants
- 312 actors (12 categories)
- Extensive list of positive and negative effects
- Integrity, privacy and health and well-being most important values (principles)
- 100+ concrete action points

Smart Signal Smartschool

Workshop 1: Action points

Disclaimer. Duidelijkheid over hoe het werkt en uitleg hierover.	Transparantie
Melding waarin staat wie die melding ook heeft gekregen	Transparantie
Alleen belangrijkste info als melding geven	Juistheid en gebruiksvriendelijkheid
Herinnering zodat de leerkracht de leerlingen niet vergeten [hier wordt bedoeld opvolging van signaal]	Juistheid en gebruiksvriendelijkheid
Kleurtjes: neutrale kleuren	Juistheid en gebruiksvriendelijkheid
ICT moet kunnen instellen: filters (bijvoorbeeld welke data neem je op, met wie deel je?), explainable AI: eigen woordcomment/ advies	Juistheid en gebruiksvriendelijkheid
Frequentie en impact op de werklast van de leerkracht.	Juistheid en gebruiksvriendelijkheid
Gepaste uren voor signalen	Juistheid en gebruiksvriendelijkheid
Moet duidelijk zijn wie jouw resultaten te zien krijgt	Transparantie
Melding niet direct naar hogerhand, maar eerst naar vakleerkracht	Juiste gebruik scholen
Denk eraan dat dit heel jonge mensen zijn (12-18 jaar) die heel kwetsbaar zijn en die soms ... (niet kunnen?) relativeren	Transparantie
Hoe zit het met de jurisdictie?	Juridische aspecten
Sensibiliseringscampagne	Communicatie
Eerst leerlingen, dan ouders	Juiste gebruik scholen
Wie krijgt inzage en hoe vaak? -18 jaar -> ouders vs gevoelige info	Juiste gebruik scholen
Leerkracht mag niet midden in een les u komen halen of op de speelplaats u aanspreken	Juiste gebruik scholen
Opvolging van signaalfunctie: feedback van leerkrachten op meldingen van het systeem.	Juiste gebruik scholen
Wat als de signaalfunctie iets aangeeft?	Juiste gebruik scholen
	Juistheid en

Smart Signal Smartschool

What we have learned from workshop 1

- Action points can concretise ethical principles
- Discrepancies between expected effects
- Action points: not always clear how to implement
- Interdependency developers and schools (for success)
- Need for a workshop 2: How to implement action points in tech and environment?

Smart Signal Smartschool

Workshops 2: Practice to implement

- One workshop
- Mix of stakeholders
- Beta testing and policy prototyping
- Subjects: transparency, usability and school policy
- Interdependency: AI Act as a mediator (IFU)
- Business Process Management

https://data-en-maatschappij.ai/en/news/report-from-policy-to-practice-prototyping-the-eu-ai-acts-transparency-requirements

Smart Signal Smartschool

What we have learned from workshop 2

- Clarification majority action points
- Clarification discrepancies: trustbuilder and overall product improvement
- Schools also have responsibilities, sometimes difficult to achieve (e.g. data quality)
- This is not the end of the ethics process

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Lessons learned project

Lessons learned

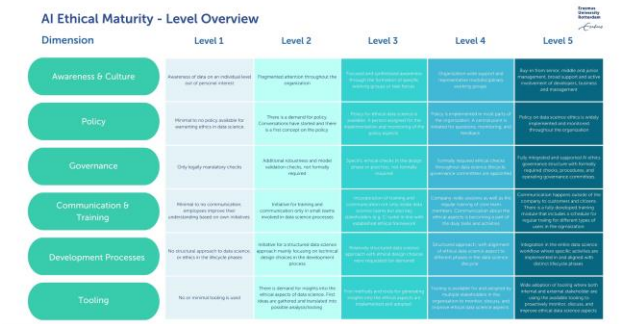
Summary of findings

- Ethical principles great abstractions, operationalization necessary, tools & methods needed
- Strong interdependency between developers and schools
- Stakeholder participation essential for trust and clarification
- Legal frameworks as enablers for cooperation
- **Ethics part software development lifecycle phases**

Lessons learned

Ethics part software development lifecycle phases

- Continuous socio-technical process
- AI Ethical Maturity models



- https://wiki.surfnet.nl/pages/viewpage.action?pageId=128124173

R4D Research for Digitalisation, Diversity and Democracy

UHASSELT

UHASSELT EDM

FLANDERS MAKE

Lessons learned

Ethics part software development lifecycle phases

- Continuous socio-technical process
- AI Ethical Maturity models
- Show best practices and case studies
- Develop tools & methods to enable developers in Flanders
- Develop business models
- Develop multi-disciplinairy, flexible and reflexive approaches that embrace uncertainty, complexity, and are more in-keeping with the way ML systems are actually developed.
- Think and code!

Let’s get in touch

Contact details

marco.houben@vub.be

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What questions do you have about ethical aspects when sharing data in education, training, learning?

ⓘ Start presenting to display the poll results on this slide.

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What insight from this presentation can you use in your own organisation?

ⓘ Start presenting to display the poll results on this slide.

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How would you rate this Deep Dive session?

ⓘ Start presenting to display the poll results on this slide.

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Do you want to add anything as feedback, suggestions or questions?

ⓘ Start presenting to display the poll results on this slide.

SAVE THE DATE

Event	Time & date	Who should be present?
Belgian Data Space Alliance day	27/05 10:00-17:00	Non-technical & technical profile
Governance of Data Sharing: Business Value & Business Models	20/06 14:00-16:30	Non-technical profile
Data Sharing: recap & next steps	28/08 14:00-16:30	Non-technical profile

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What specific questions do you hope to get an answer to in future sessions?

ⓘ Start presenting to display the poll results on this slide.

BDSA DAY

Programme

- Morning: update on developments:
  - Specific data space building bocks from a Technical, Legal, Business perspective

- Afternoon: sectorial break-outs:
  - Data sharing: data ownership, data sources, data interoperability


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