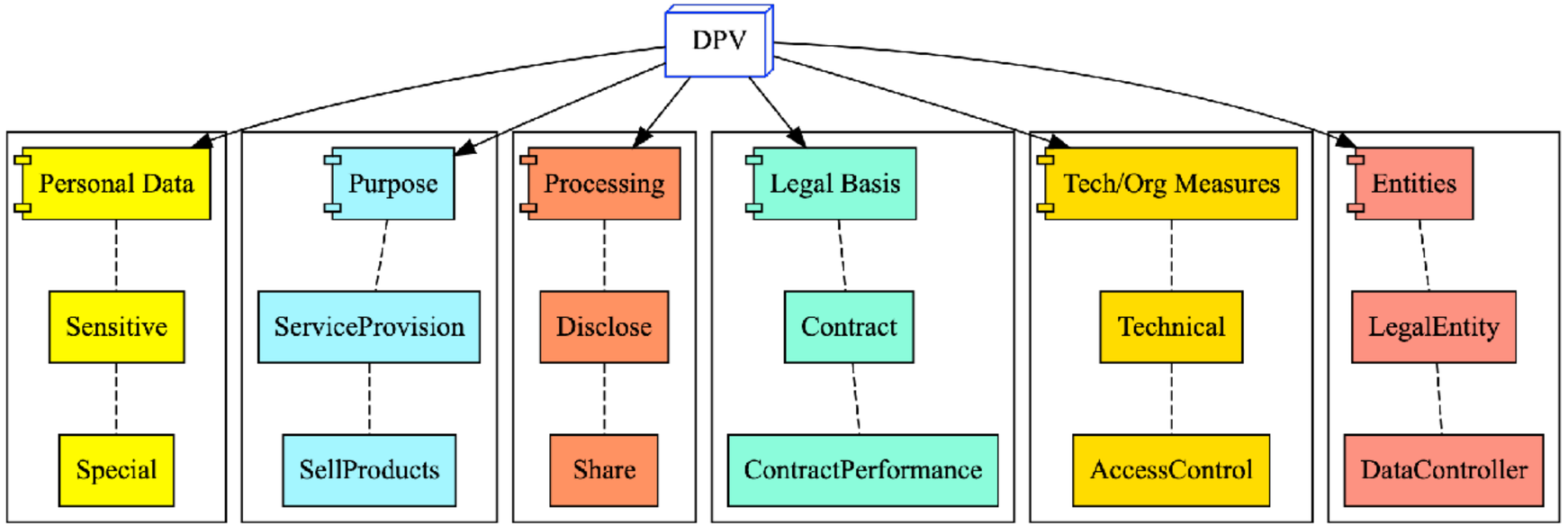


https://w3id.org/dpv

Data Privacy Vocabulary (DPV) & Solid

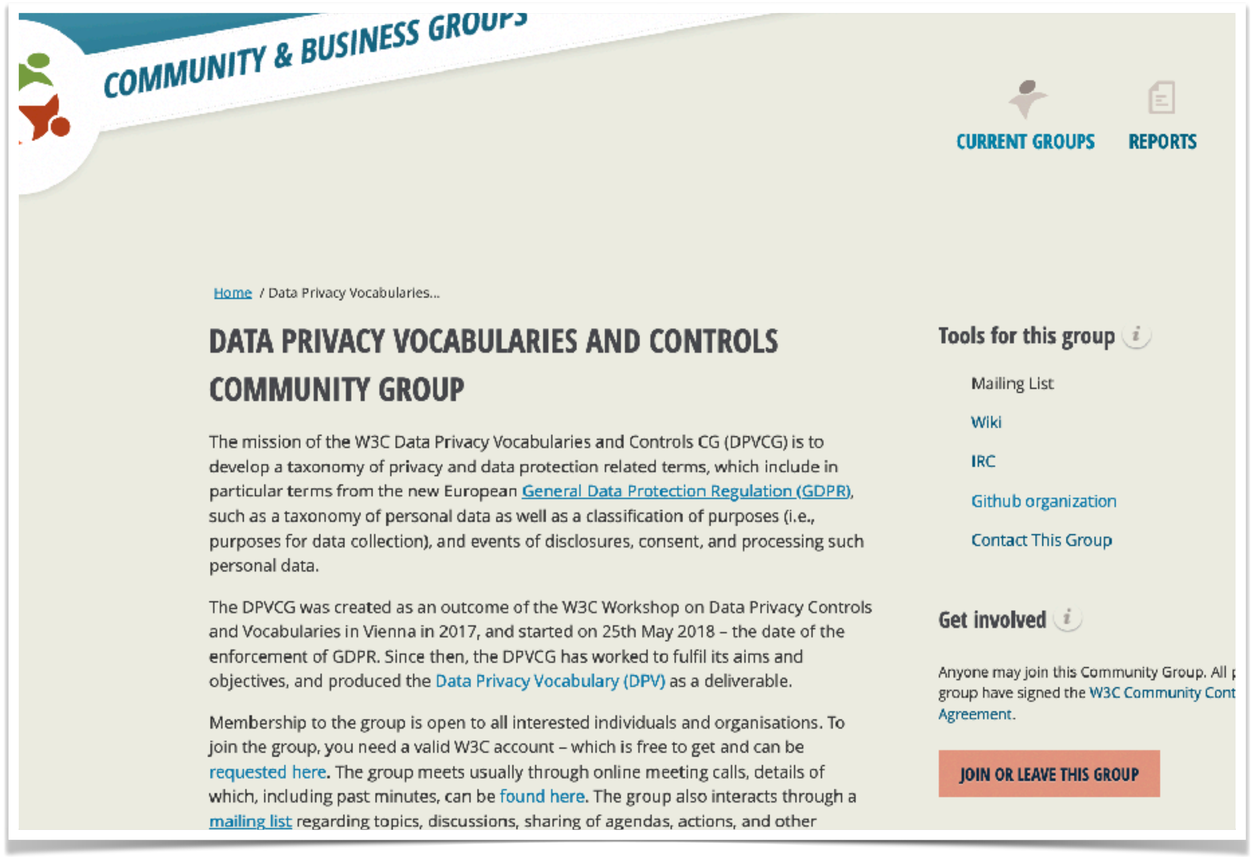
Harsh(vardhan J. Pandit)

Research Fellow @ ADAPT Centre, Trinity College Dublin

Email: pandith@tcd.ie | Twitter: @coolharsh55

https://harshp.com/research/presentations

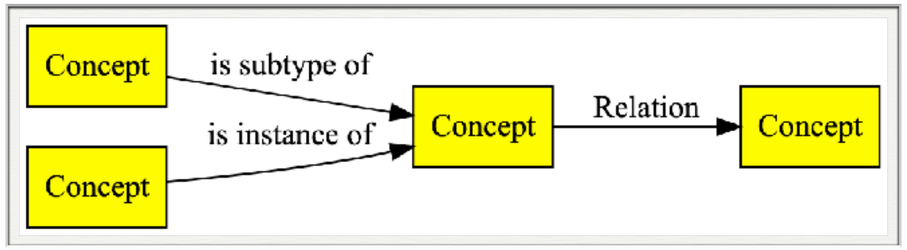
DPVCG: W3C Data Privacy Vocabularies and Controls Community Group



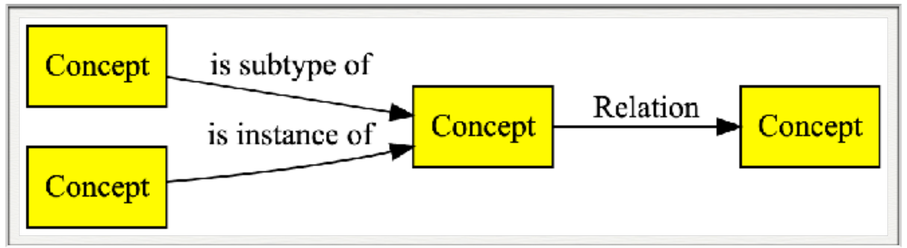
https://www.w3.org/community/dpvcg/

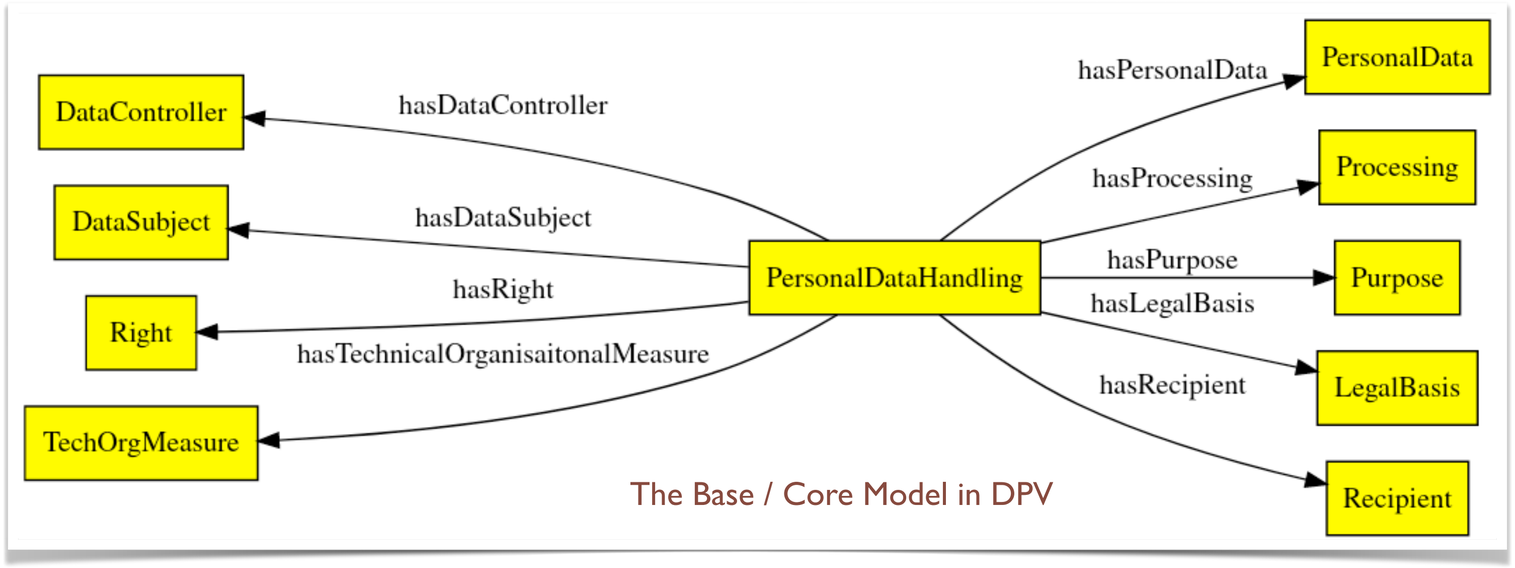
- Initiated by SPECIAL - A European H2020 project in May 2018
- Started with focus on GDPR, Expanded scope to global vocabulary
- Open Membership
- Mission: Provide a machine-readable vocabulary for describing who/what/why/where/how/when stuff related to Personal Data & Privacy

Knowledge & Semantics



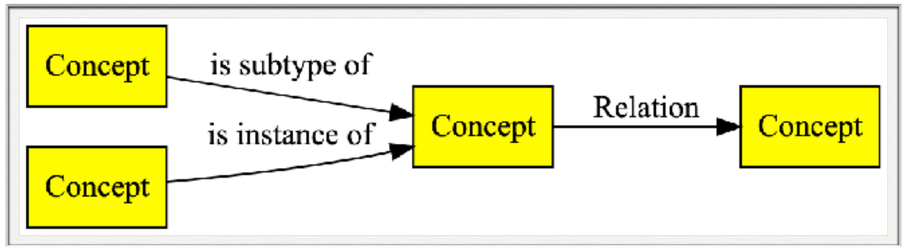
Knowledge & Semantics

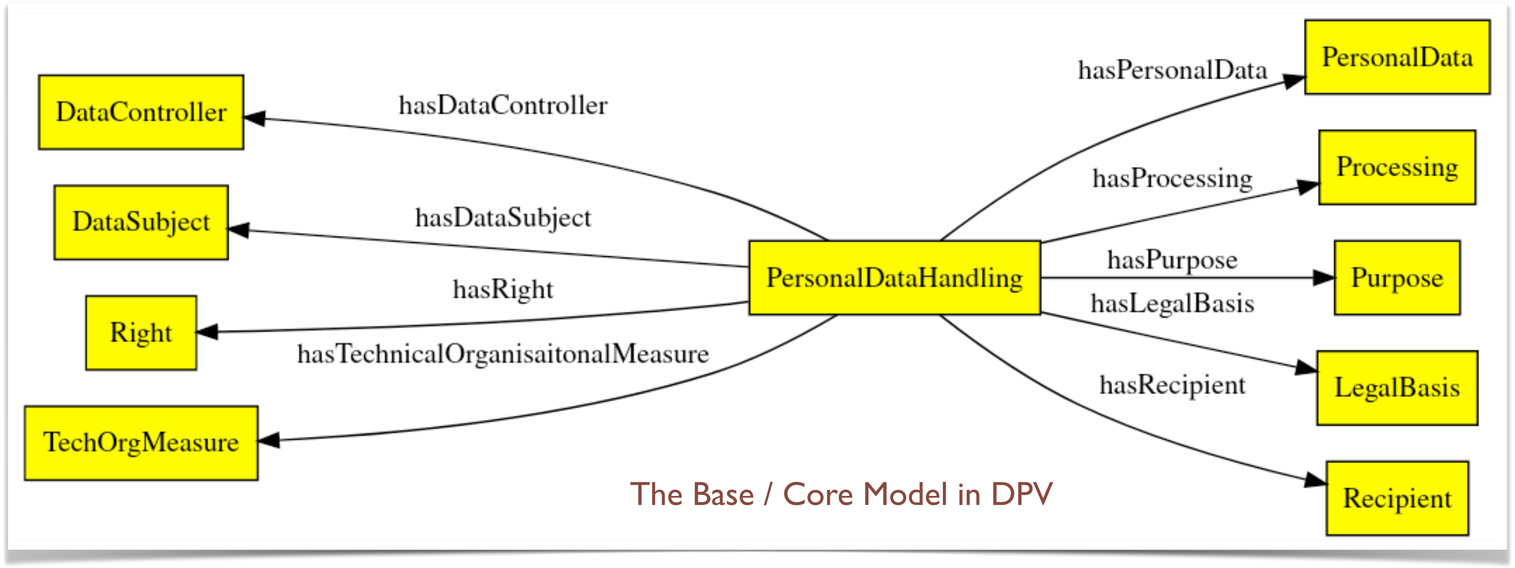




The Base / Core Model in DPV

Knowledge & Semantics





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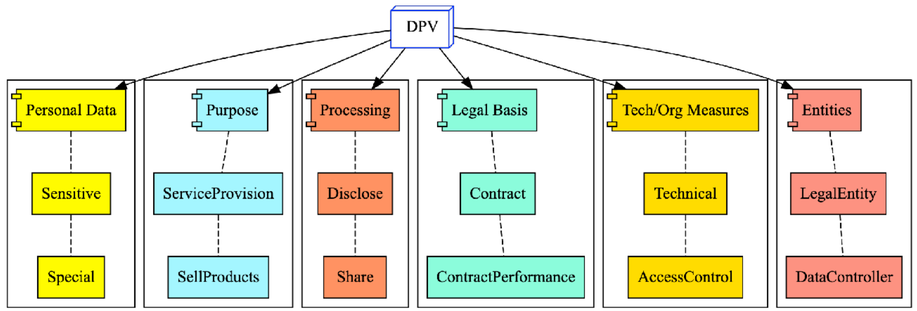
Taxonomies for Core Concepts



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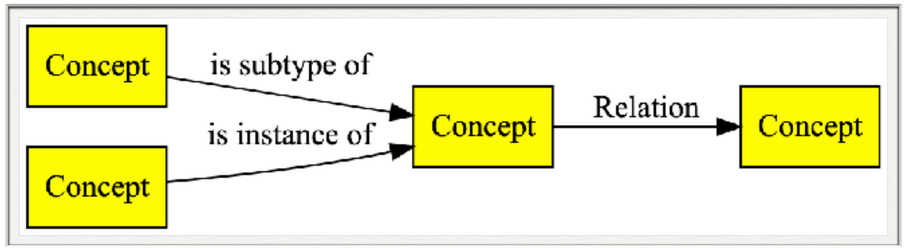

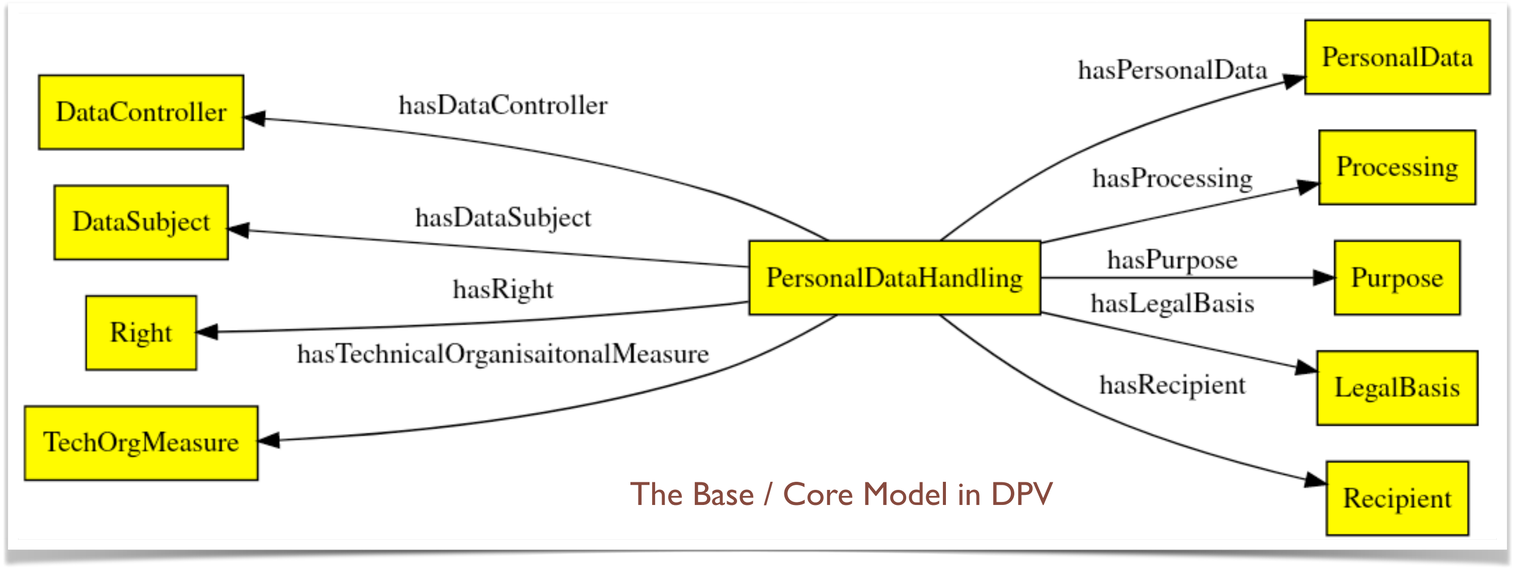

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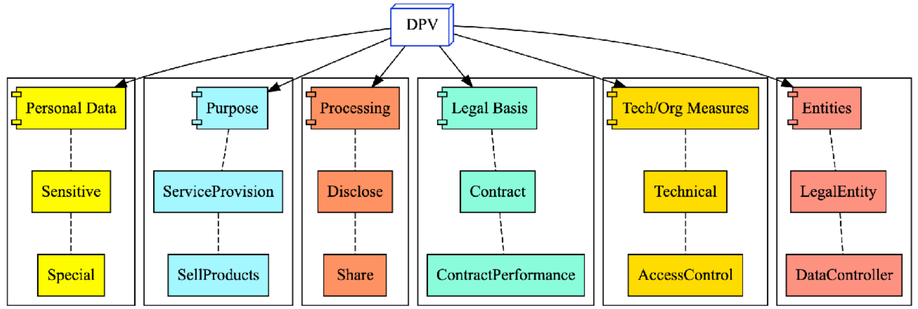
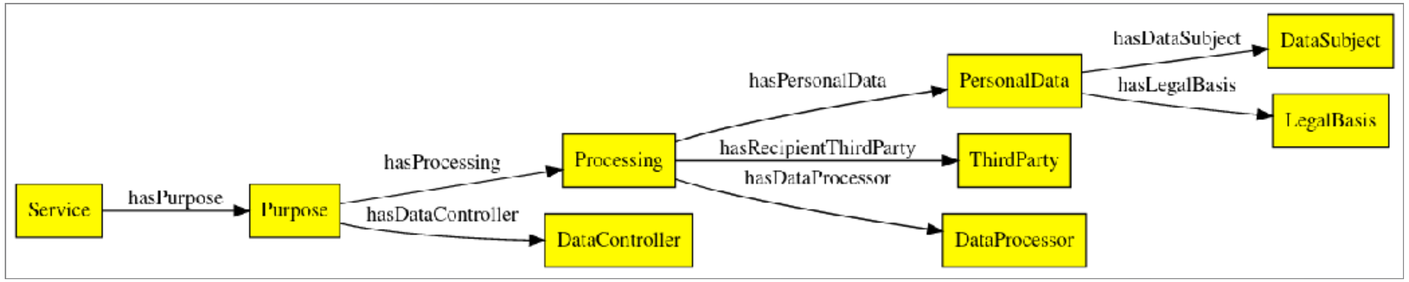
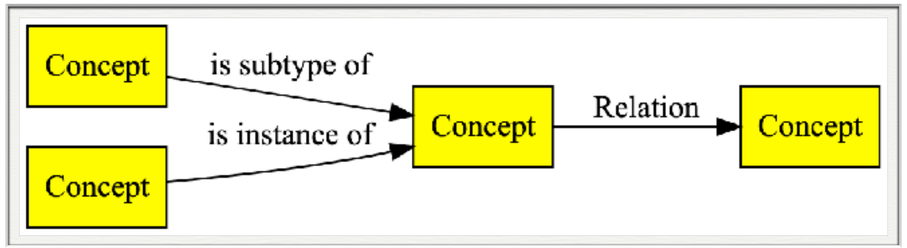
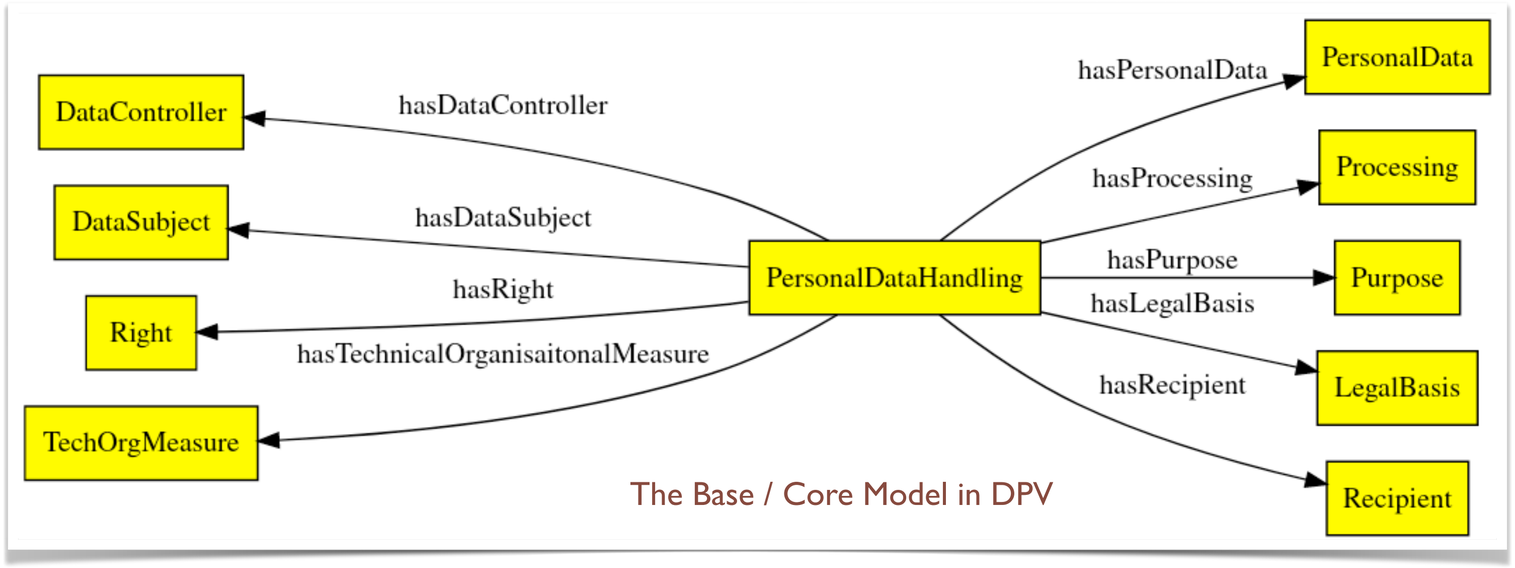




Alternate Models that suit YOUR use-cases

Knowledge & Semantics





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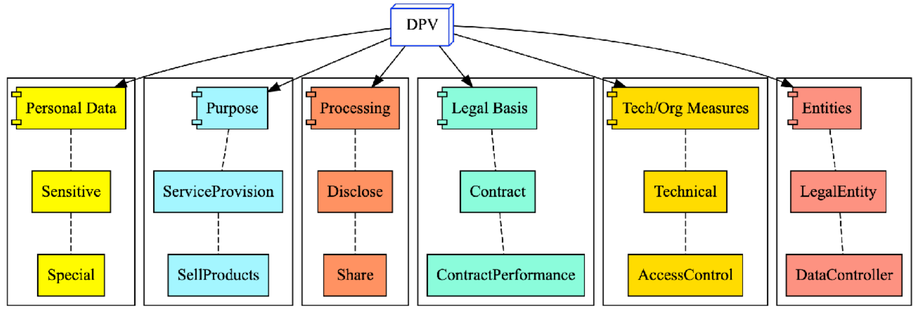


DPV-GDPR: GDPR Extension for DPV

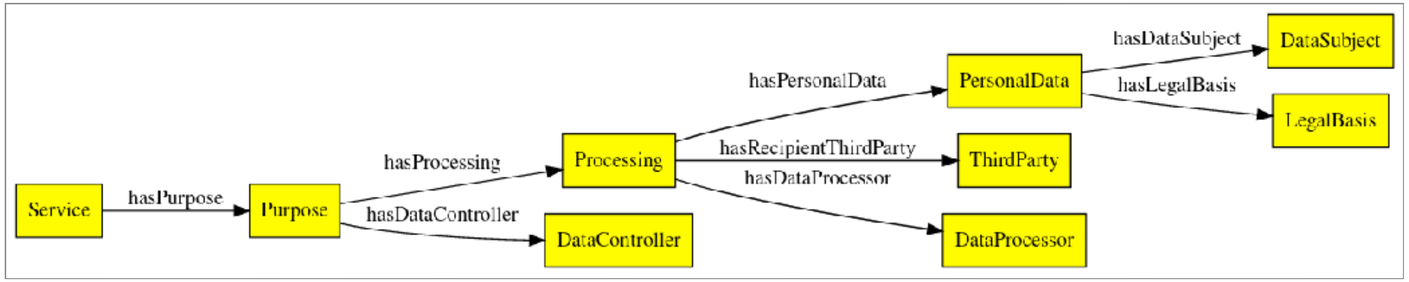
version 0.7

Draft Community Group Report 25 May 2022

Latest published version:

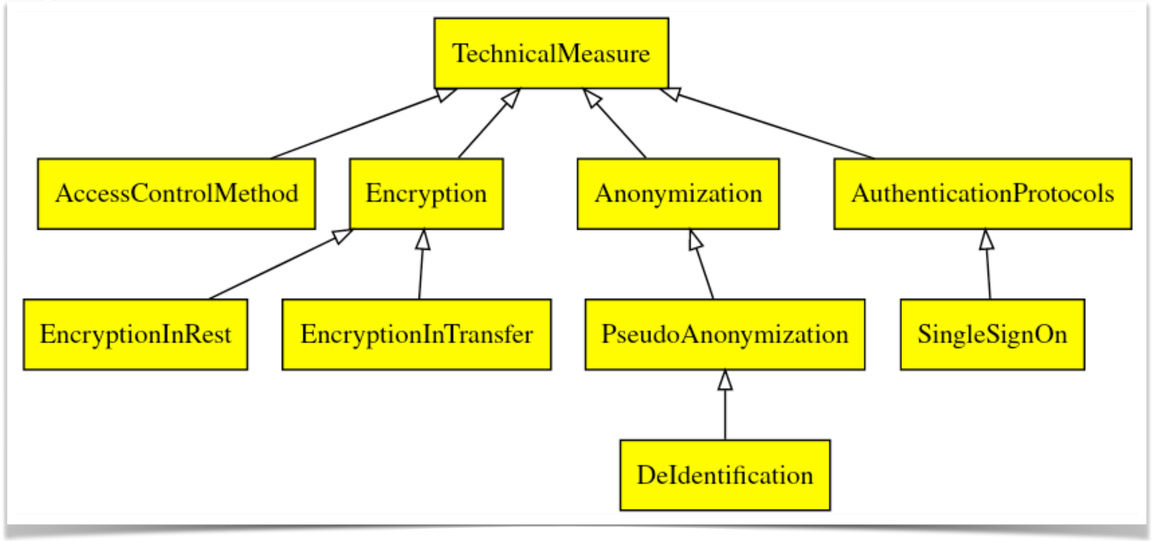
https://w3id.org/dpv/dpv-gdpr

Extend for Domains / Jurisdictions

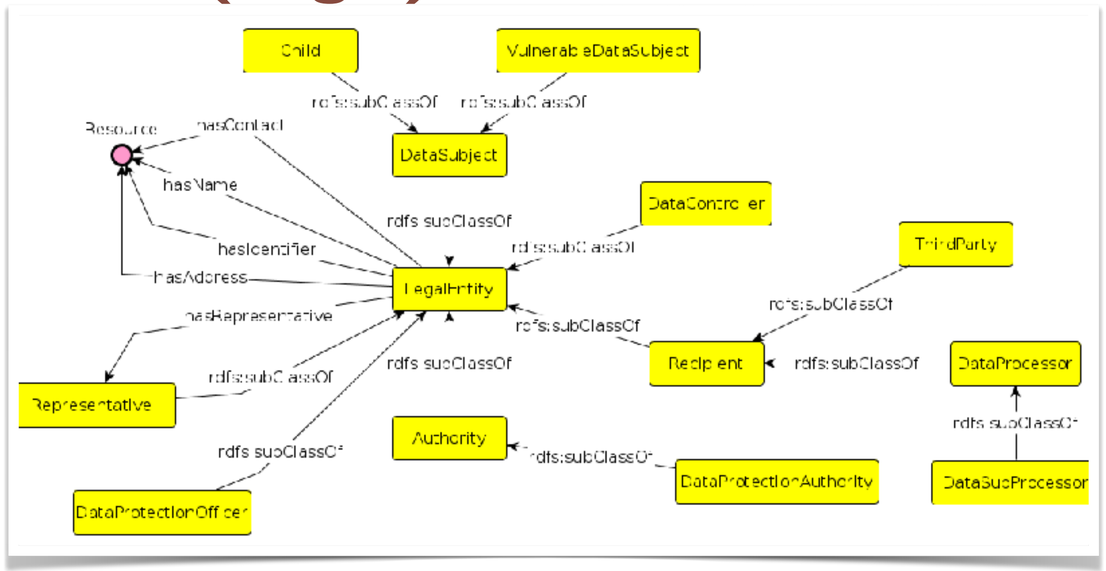


Alternate Models that suit YOUR use-cases

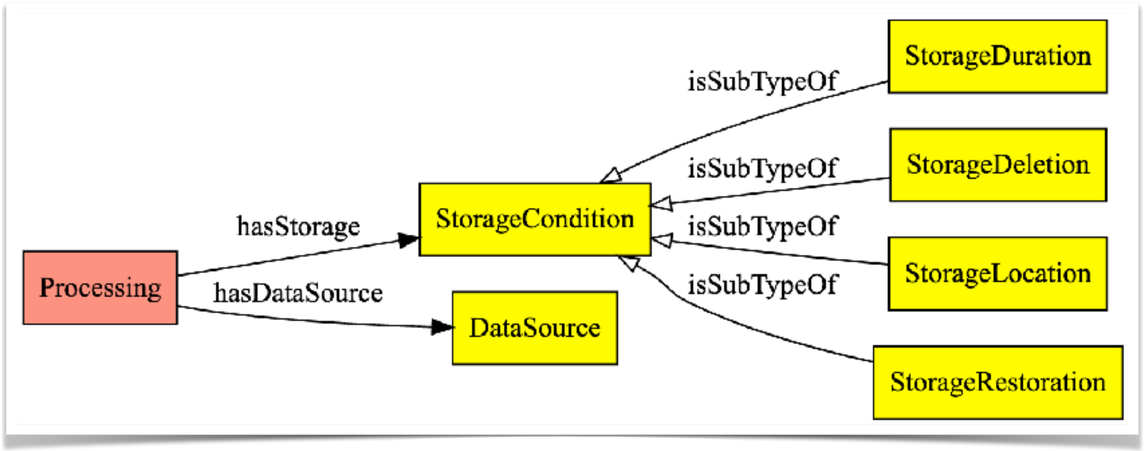
Technical & Organisational Measures - How? Where?



(Legal) Entities - Who?

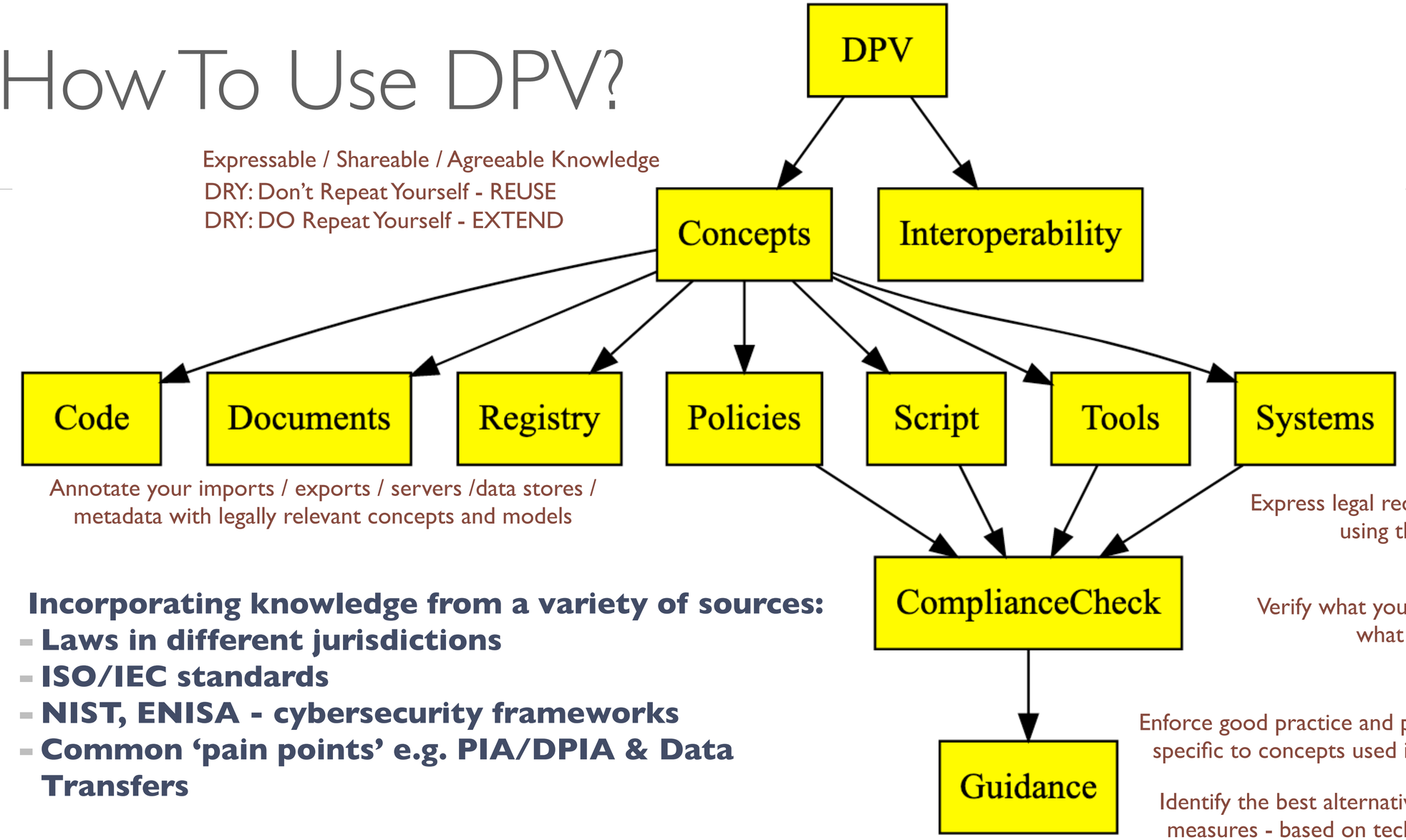


Processing - How? Where?



How To Use DPV?

Expressable / Shareable / Agreeable Knowledge
DRY: Don't Repeat Yourself - REUSE
DRY: DO Repeat Yourself - EXTEND



Annotate your imports / exports / servers /data stores / metadata with legally relevant concepts and models

Express legal requirements and constraints using the same concepts

Verify what your compliance status is and what you need to do

Enforce good practice and provide guidelines specific to concepts used in your use-case

Identify the best alternatives e.g. security measures - based on technologies used

Incorporating knowledge from a variety of sources:

- **Laws in different jurisdictions**
- **ISO/IEC standards**
- **NIST, ENISA - cybersecurity frameworks**
- **Common 'pain points' e.g. PIA/DPIA & Data Transfers**

Information…
Information…
Information …

- Policies
- Privacy Policies — End-User
- Internal Organisational Policies
- Service/Agent Negotiation

- Permission Management
- Consent
- Access Control

Government
Universities
Browsers
Personal Devices

- Transparency in Use & Sharing
- Apple Store Labels
- Internet Communications
- Dataset Publishing

Banking
eHealth
Medicine

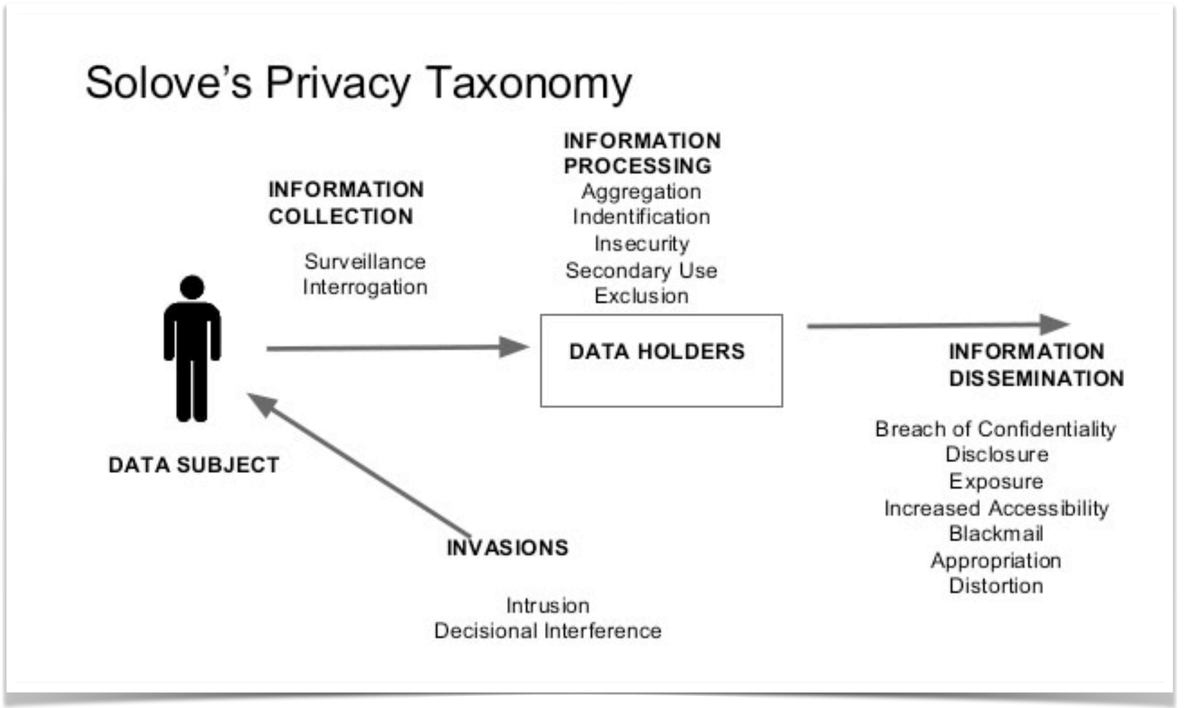
- Legal Compliance
- Documentation of Use-Case
- Input to Assessment Tools

Dialogue
Dashboard

Smartphones
IoT
Open Data

Challenges to DPV

- Deontic Logic is not expressed by this audience
- Too much variation in Global concepts for uniformity e.g. 'Sell' in CA/USA vs EU
- Legality ≠ Privacy
- Learning curve and barriers to adoption
- Integration of standards e.g. ISO
- Technologies e.g. cookies, databases, algorithms
- Prove completeness and correctness in real-world use-cases



The scope of DPV is in a progressive flux
It needs a *diverse multi-disciplinary* cohort of experts to finalise concepts

Lessons Learned From Applying DPV to Solid

STANDARDS?

INTEROPERABILITY?

LAWS?

(a) see EU Data Act and Data Spaces https://digital-strategy.ec.europa.eu/en/policies/strategy-data
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Conceptual: DPV follows existing legal terminology; Solid uses terms from its ecosystem: pods, users, agents, and policies

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Permission = (always) Consent?

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Data Sharing beyond Pods?
Sticky Policy?
Provenance of Data Chains?

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Non-EU >> Data Transfer >> EU

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Transparency Obligations ?
Notices? Consent Request?
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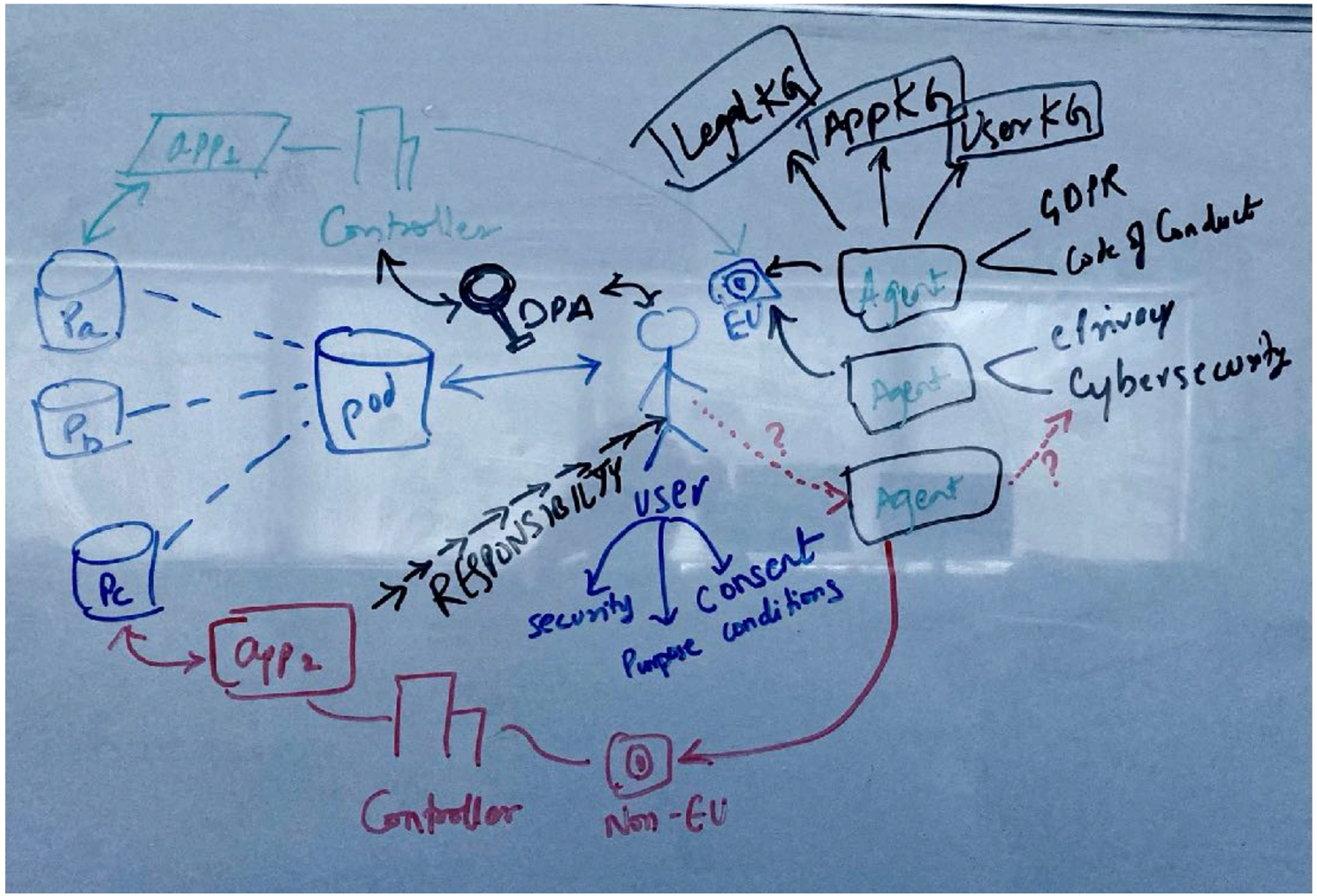
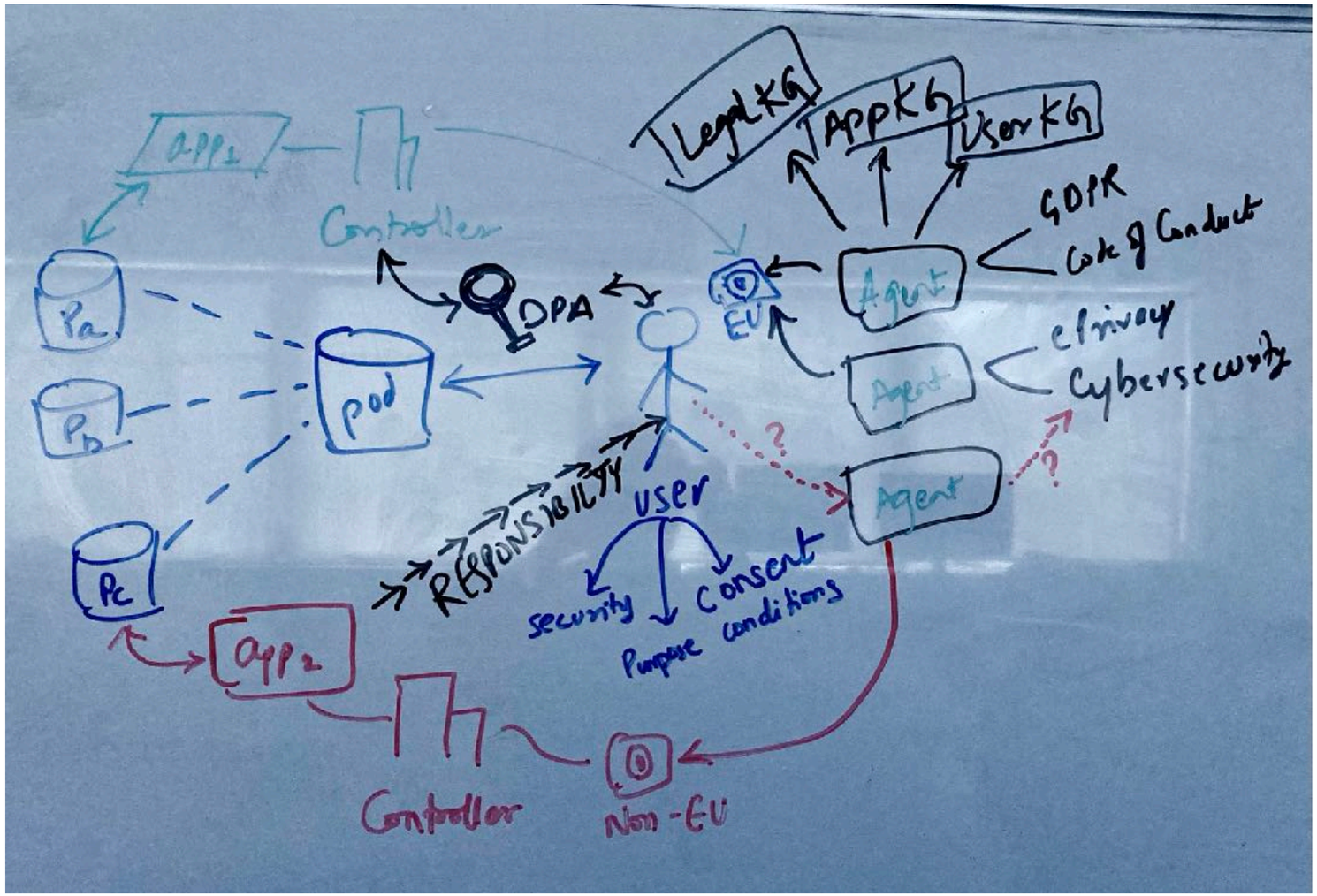

App1
Controller
Pa
Pb
Pc
Pod
DPA
EU
Legal KG
App KG
User KG
GDPR
Code of Conduct
Agent
Agent
Agent
ePrivacy
Cybersecurity
?
?
User
RESPONSIBILITY
Security
Consent
Purpose conditions
App2
Controller
Non-EU

#A Users bear all responsibility

Lengthy terms & conditions, deceptive practices, re-emergence of wild wild west (puns intended).



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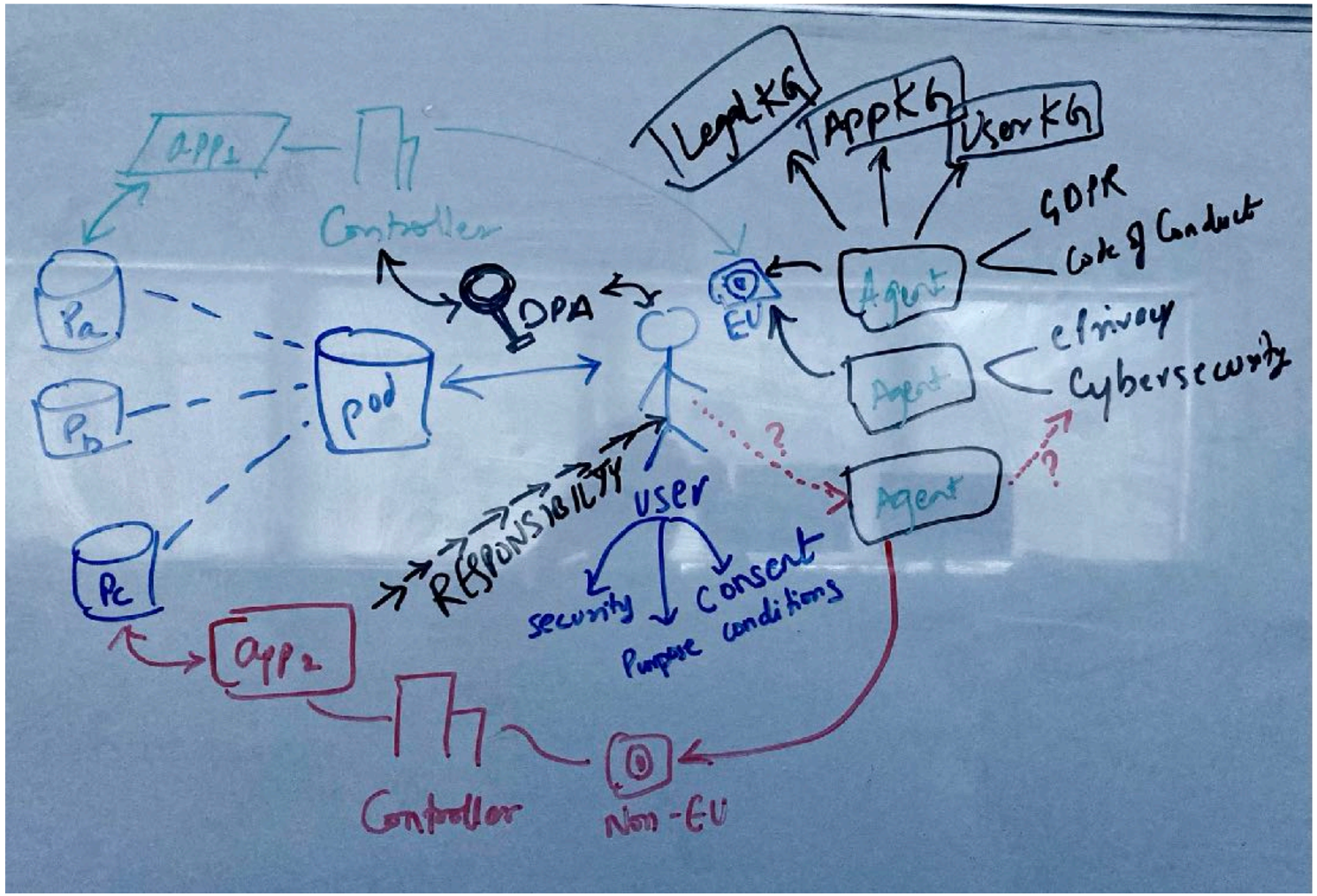

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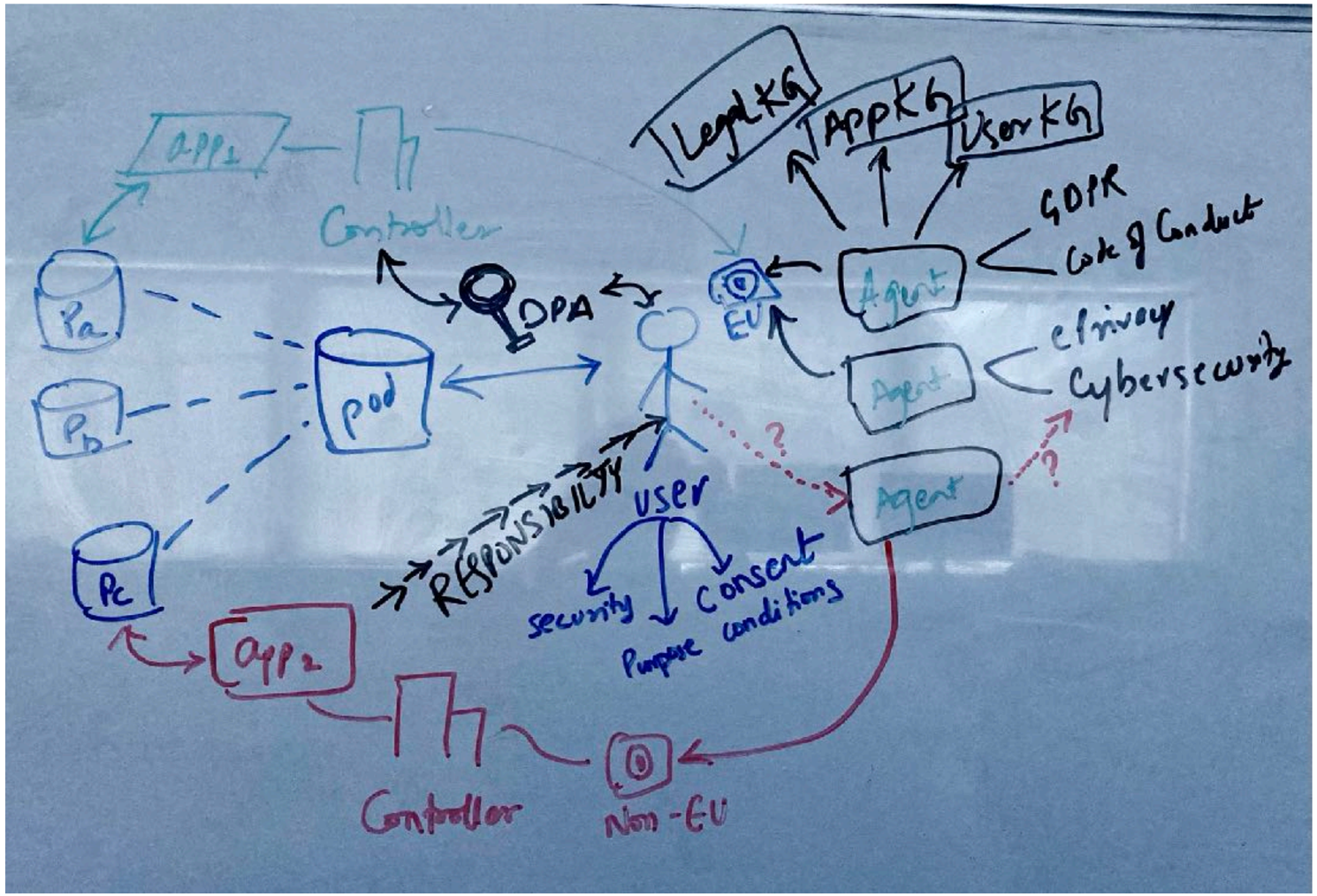

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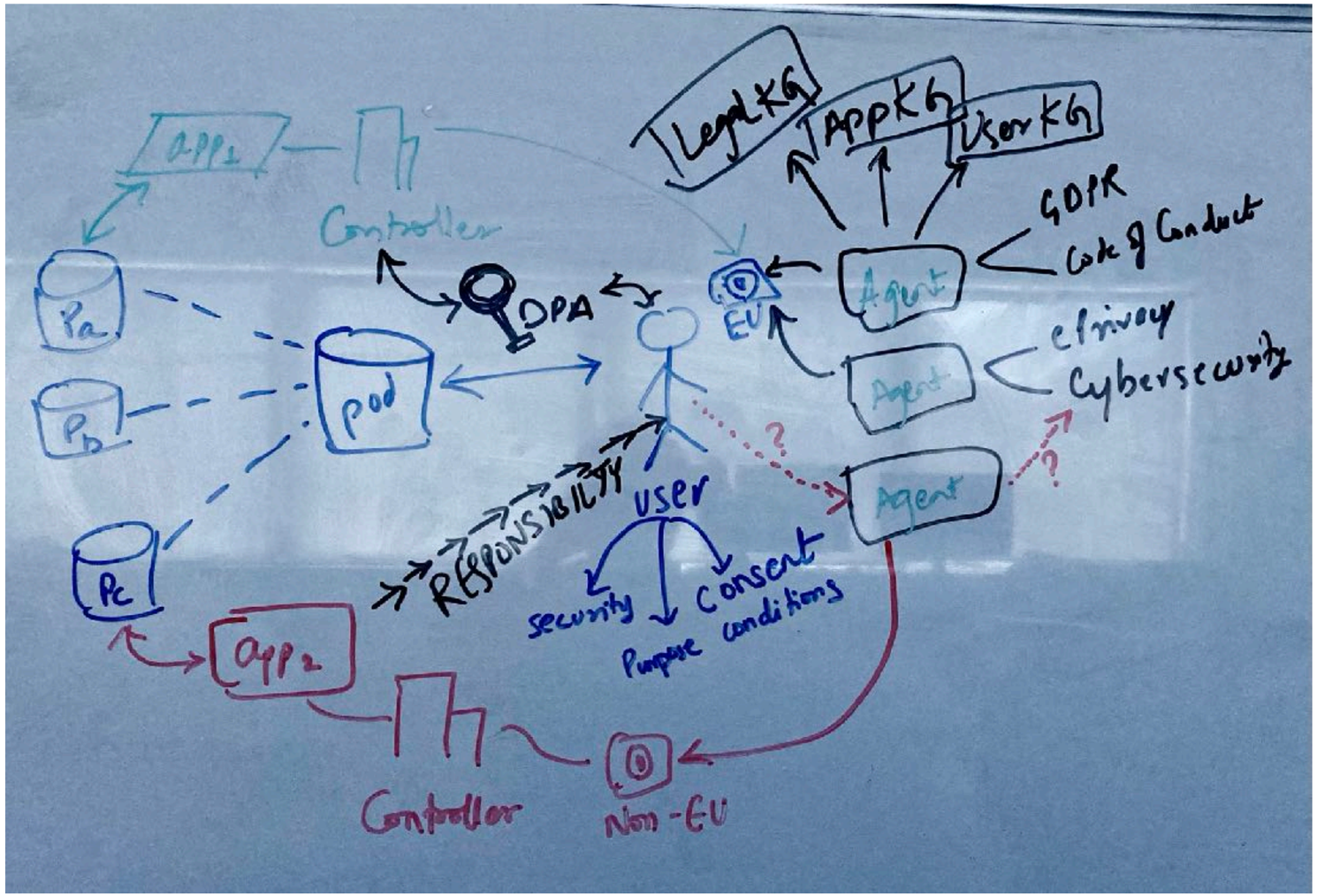

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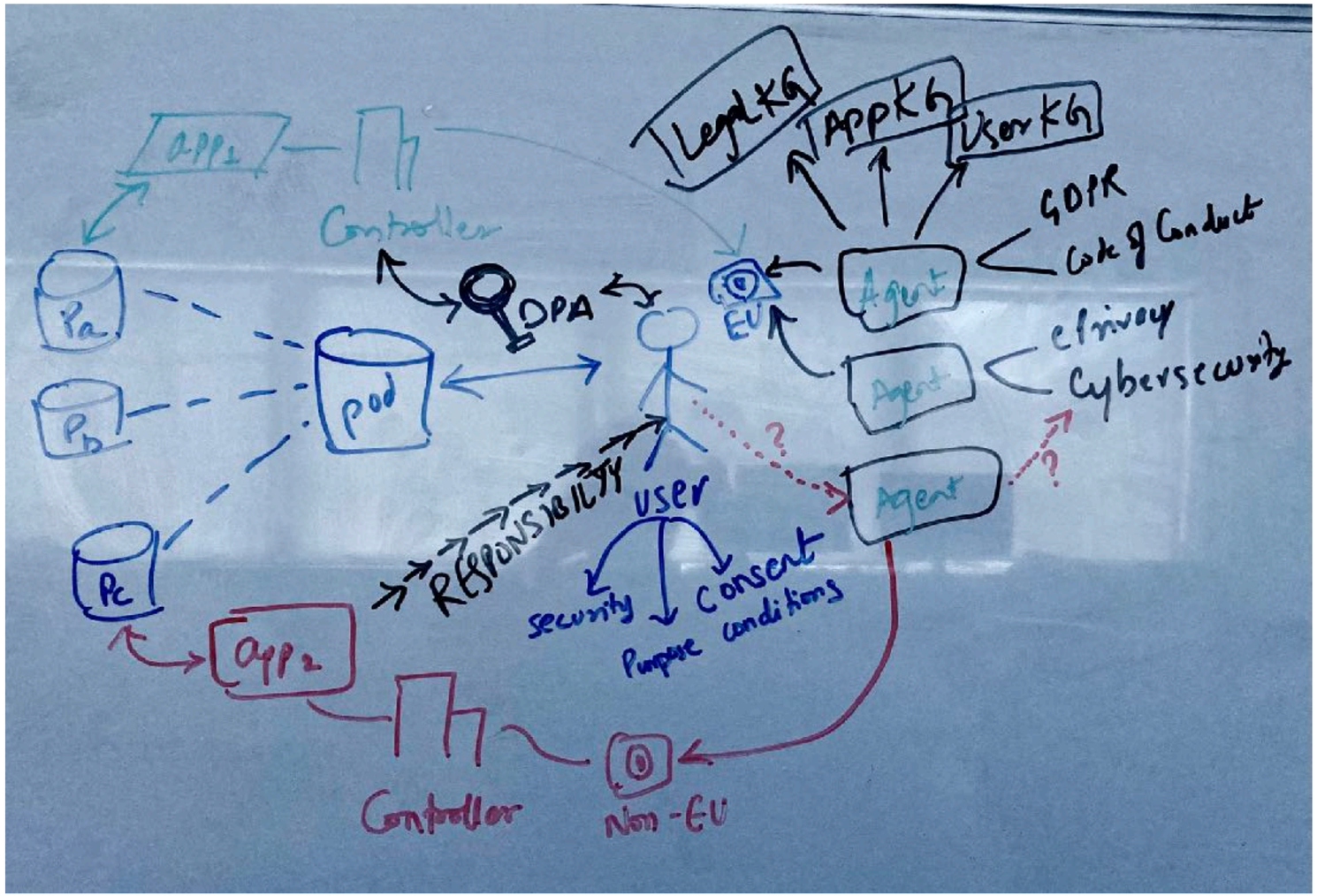

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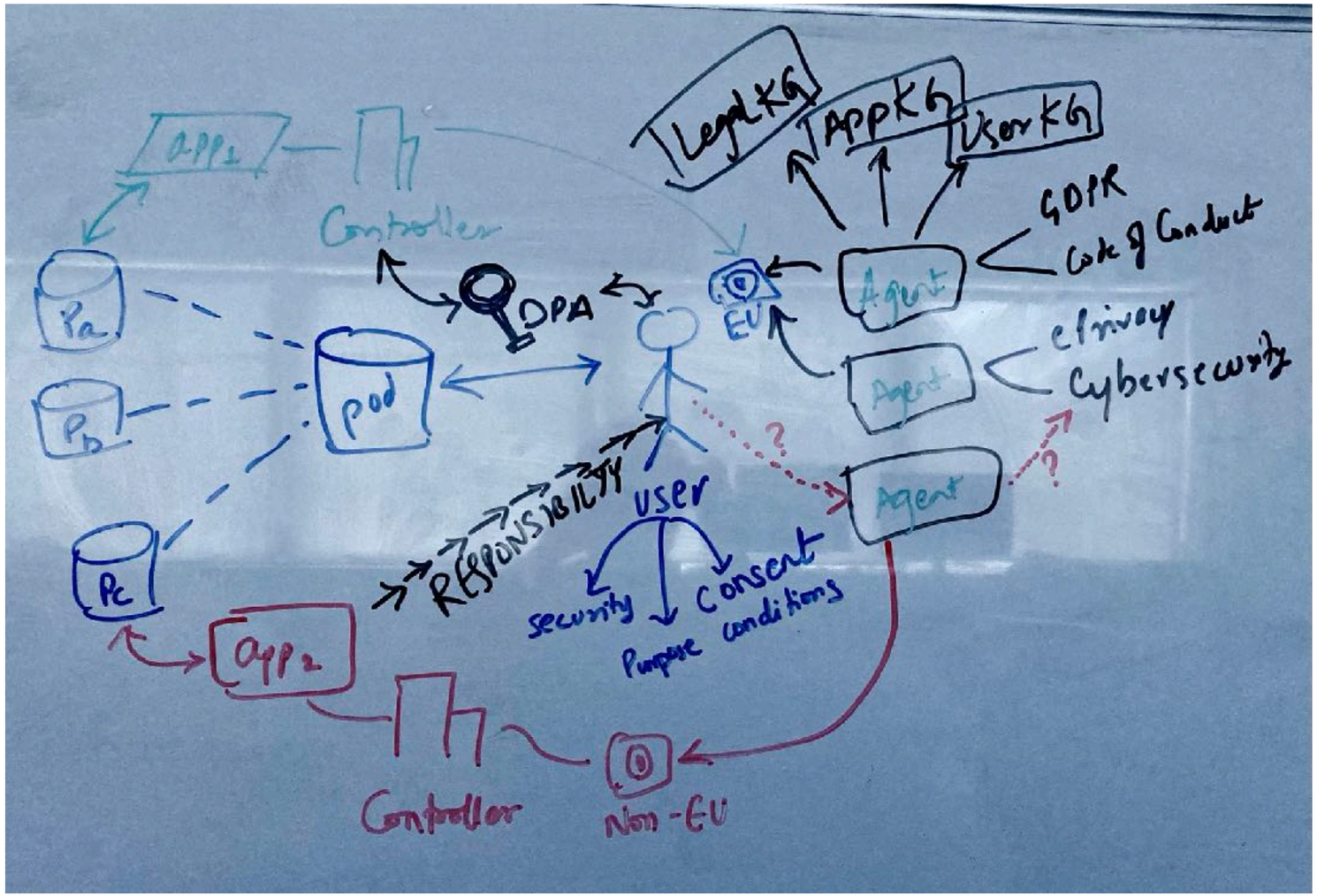

Data Privacy Vocabulary (DPV)

Presented by Harshvardhan J. Pandit

for COST EU Workshop on Privacy Issues in Distributed Social Knowledge Graphs (PIDSKG)

pandith@tcd.ie | @coolharsh55

Links

This presentation: https://harshp.com/presentations

DPV: https://w3id.org/dpv

DPVCG: https://www.w3.org/community/dpvcg/

Github: https://github.com/w3c/dpv/

Adapter from prior presentations: FAIRPoints2022, PEPR2022