



Engaging Content
Engaging People



Data Privacy Vocabulary (DPV)

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FUNDED BY:





- PhD: GDPR x Semantic Web x Provenance → [ADAPT Theme-E / EPWG](#)
 - 2016 - 2020 :: Data Governance, Legal Compliance, GDPR
 - Vocabularies, Ontologies → Representation, Querying, Validation^d
 - Open Sourced all work and resources <http://openscience.adaptcentre.ie/>
- Focus:
 - Machine-readability - automation, interpretation, checking, verification
 - Interoperability - use it across systems, platforms, services, vendors, organisations
 - Standards - stability, agreement, commonality, interoperability
- Outcomes:
 - GDPRtEXT^a: taxonomy of GDPR, expose legislation as linked data
 - GDPRov^b: provenance of activities related to personal data and consent
 - GConsent^c: ontology for information related to consent based on GDPR

^a GDPRtEXT <https://w3id.org/GDPRtEXT/> "GDPRtEXT - GDPR as a Linked Data Resource" Pandit et al. (2018) https://doi.org/10.1007/978-3-319-93417-4_31

^b GDPRov <https://w3id.org/GDPRov/> "Queryable Provenance Metadata For GDPR Compliance" Pandit et al. (2018) <https://doi.org/10.1016/j.procs.2018.09.026>

^c GConsent <https://w3id.org/GConsent/> "GConsent - A Consent Ontology based on the GDPR" Pandit et al. (2019) https://doi.org/10.1007/978-3-030-21348-0_18

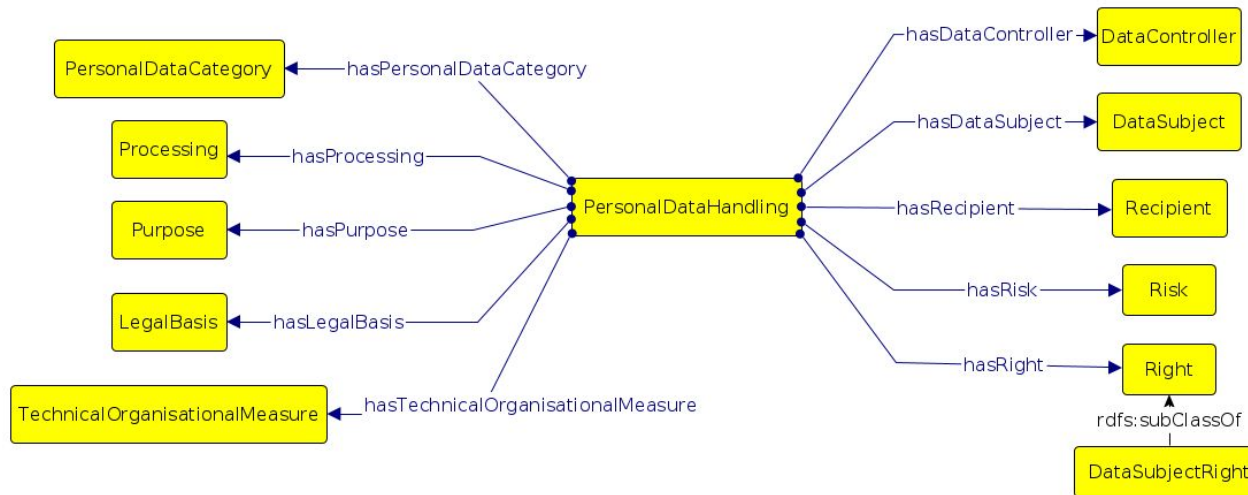
^d "Test-driven Approach Towards GDPR Compliance" Pandit et al. (2019) https://doi.org/10.1007/978-3-030-33220-4_2



- DPVCG is: a community of practitioners from various domains: legal, research, industry, privacy, academic, authorities
 - Started in 2018 under the EU H2020 SPECIAL Project (2017 - 2019)
 - **Joined as a Member in Sep 2018 with support from ADAPT as part of PhD research undertaken regarding GDPR compliance**
- DPVCG creates a common vocabulary for specifying information about how personal data is processed and used based on GDPR
- Current responsibilities:
 - Co-Chair (since Jan 2020)
 - Author / Maintainer of deliverables



- v0.1 consisted of:
 - Personal data categories
 - Purposes
 - Processing categories
 - Technical and organizational measures
 - Legal Basis, including consent
 - Recipients, data controllers
- v0.2 (Jan 2021) extends with: Rights, Risks



Ongoing Work

- Technologies - databases, encryption, etc.
 - Risk Management** ← **IRC fellowship**^b
 - 2021-22 individual award
 - Express risk using DPV
 - Enable exploration of risks
 - Automate PIA / DPIA
- Guidelines / Standards - ISO, etc.
- Legal bases
- Consent Records** ← **NGI TRUST funding**^c
 - Create specification for consent
 - Verifiable, transparent, accountable
 - Implementations and Protocols

^a "Creating A Vocabulary for Data Privacy". Pandit and Polleres et al. https://doi.org/10.1007/978-3-030-33246-4_44
^b RISKY: Exploring privacy risks of technologies using knowledge graphs <https://harshp.com/research/projects/risky>
^c Privacy as Expected: Consent Gateway project <https://privacy-as-expected.org/>



1. Academic: **DPV is the most comprehensive vocabulary within the SotA**
2. Industry:
 - a. Thomson Reuters
 - b. Deutsche Telekom AG
 - c. PROXIMUS
 - d. Signatu AG
3. Personal Involvement:
 - a. Feedback to ISO/IEC WG in Privacy Engineering e.g. 27560 Consent Record
 - b. Kantara Initiative: Consent and Personal Data Receipts
 - c. Career-defining work as author of DPV and chair of DPVCG**
4. Future Efforts:
 - a. Increase industry adoption through tools and documentation
 - b. Encourage research & development of interoperable solutions
 - c. Propose standard adoption to EU ISA² Programme



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Career under ADAPT



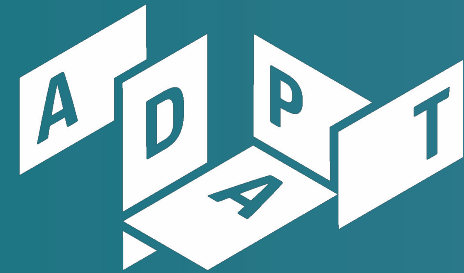
- PhD Mar 2016 -- May 2021
- Funding awards
 - IRC Research Fellowship (2 years): Oct 2020 -- Sep 2022
 - NGI TRUST (H2020) Project (6 months): Oct 2020 -- Jun 2021
- Freedom for exploring networks and opportunities
 - Legal data → EU Datathon (1st place) → EU Publications Office
 - Join DPVCG → Author/Editor of DPV → Co-Chair
 - Join NSAI & ISO WG → Contribute to 27560 standard on Consent
- Research Supervision & Teaching
 - Taught Concurrent System to Third Year Undergraduate (CompSci)
 - Supervising Undergraduate & MSc Projects ; Mentor PhD Students
- Organisation and Activities:
 - Chair for LegalTech track at SEMANTiCS conference (Sep'20, Oct'21)
 - Chair for CONSeNT workshop at Euro Security & Privacy (Oct'21)
 - Chair of W3C Consent Community Group (formed 2021)

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