



SPECIAL

Scalable Policy-awarE Linked Data arChitecture for prIvacy, trAnsparency and compLiance

Deliverable 6.5

Final Report of the Community Group

SPECIAL DELIVERABLE

Name, title and organisation of the scientific representative of the project's coordinator:

Ms. Jessica Michel t: +33 4 97 15 53 06 f: +33 4 92 38 78 22 e: jessica.michel@ercim.eu GEIE ERCIM, 2004, route des Lucioles, Sophia Antipolis, 06410 Biot, France

Project website address: http://www.specialprivacy.eu/

SPECIAL

Project	
Grant Agreement number	731601
Project acronym:	SPECIAL
Project title:	Scalable Policy-awarE Linked Data arChitecture for
Funding Scheme: Date of latest version of DoW against which the assessment will be made: Document	prIvacy, trAnsparency and compLiance Research & Innovation Action (RIA) 17/10/2016
Period covered:	
Deliverable number:	D6.5
Deliverable title:	Final Report of the Community Group
Contractual Date of Delivery:	30.06.2019
Actual Date of Delivery:	31.7.2019
Editor (s):	Axel Polleres, Harshvardhan J. Pandit
Author (s):	Harshvardhan J. Pandit - Trinity College Dublin, Ireland
Tunor (5).	Axel Polleres - WU
	Bert Bos - ERCIM
	Rob Brennan - Dublin City University, Ireland
	Bud Bruegger - ULD
	Fajar J. Ekaputra - Vienna University of Technology, Austria
	Javier D. Fernández - WU
	Roghaiyeh Gachpaz Hamed - Trinity College Dublin, Ireland Elmar Kiesling - Vienna University of Technology, Austria Mark Lizar - OpenConsent/Kantara Initiative, UK Eva Schlehahn - ULD
	Simon Steyskal –Siemens, Austria
	Rigo Wenning - ERCIM
Reviewer (s):	Martin Kurze (TLABS), plus the other members of the public W3C Data Privacy Vocabulary and controls Communiy group (DPVCG)
Participant(s):	WU, ERCIM, ULD, with the support of the authors' and DPVCG members' organisations.
Work package no.:	WP6
Work package title:	Collaboration, Dissemination & Standardisation
Work package leader:	ULD
Distribution:	PU
Draft/Final:	Final
Total number of pages (including	203
cover):	

Disclaimer

This document contains description of the SPECIAL project work and findings.

The authors of this document have taken any available measure in order for its content to be accurate, consistent and lawful. However, neither the project consortium as a whole nor the individual partners that implicitly or explicitly participated in the creation and publication of this document hold any responsibility for actions that might occur as a result of using its content.

This publication has been produced with the assistance of the European Union. The content of this publication is the sole responsibility of the SPECIAL consortium and can in no way be taken to reflect the views of the European Union.

The European Union is established in accordance with the Treaty on European Union (Maastricht). There are currently 28 Member States of the Union. It is based on the European Communities and the Member States cooperation in the fields of Common Foreign and Security Policy and Justice and Home Affairs. The five main institutions of the European Union are the European Parliament, the Council of Ministers, the European Commission, the Court of Justice and the Court of Auditors (<u>http://europa.eu/)</u>.

SPECIAL has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731601.

1 Executive Summary & Table of Content

This Deliverable summarizes the results of the W3C Data Privacy Vocabularies and Controls Working Group (DPVCG), which was established and chaired by members of the SPECIAL Consortium (co-chairs: Axel Polleres (WU), Bert Bos (ERCIM)) as an initiative to build a community around the development of joint machine-readable vocabularies towards interoperability in the context of data privacy. Details about the community group, along with information on how to participate and provide feedback to the drafts is available at: https://www.w3.org/community/dpvcg/

The deliverable comprises 3 parts:

- 1. A report presenting the DPVCG's work, summarizing its goals and results thus far, along with a discussion on the developed vocabularies' potential uses. (page 7-23 of this document)
- The complete current draft specification (version 0.1) of the "Data Privacy Vocabulary (DPV)", the main vocabulary developed by group, as published and announced publicly on 26th July 2019.¹
 (page 24-189 of this document, also available at: https://www.w3.org/ns/dpv)
- The complete current draft specification of the auxiliary "DPVCG GDPR Legal Basis Vocabulary (DVP-GDPR)", which provides the legal bases defined by and specific to

the GDPR.

(page 190-203) of this document, also available at: <u>https://www.w3.org/ns/dpv-gdpr</u>)

The intention to keep part 2 and part 3 separate is to separate terms specific to particular privacy legislation in separate vocabularies. More details on the modular structure of the resulting DPV vocabularies are provided in Part 1.

While this document is in principle the final report from the perspective of the SPECIAL project, the public DPVCG intends to sustain its activity beyond the project and solicits feedback for its draft specifications which shall still be addressed and published in another version of the drafted vocabularies. The most current public versions of the published vocabularies are intended to be updated at the URLs mentioned above. Snapshots of current editors' drafts are available in the DPVCGs github repository at https://github.com/dpvcg/.

¹ <u>https://lists.w3.org/Archives/Public/semantic-web/2019Jul/0087.html</u>

SPECIAL

Contents

1	Introdu	uction	2
2	DPVC	G: Data Privacy Vocabularies and Controls CG	3
3	Existing and Relevant Vocabularies		4
	3.1	Existing Standards and Standardisation Efforts	4
	3.2	Vocabularies addressing Privacy and GDPR	5
4	Metho	dology	5
5			6
	5.1	Base Ontology	7
	5.2	Personal Data Categories	8
	5.3	Purposes	8
	5.4	Processing Categories	10
	5.5	Technical and Organisational Measures	10
	5.6	Consent and other Legal Bases	12
	5.7	Recipients, Data Controllers, and Data Subjects	12
6	Potent	ial Adoption and Usage	13
7	Conclu	sion	14

Abstract Managing privacy and understanding handling of personal data has turned into a fundamental right, at least within the European Union, with the General Data Protection Regulation (GDPR) being enforced since May 25th 2018. This has led to tools and services that promise compliance to GDPR in terms of consent management and keeping track of personal data being processed. The information recorded within such tools, as well as that for compliance itself, needs to be interoperable to provide sufficient transparency in its usage. Additionally, interoperability is also necessary towards addressing the right to data portability under GDPR as well as creation of user-configurable and manageable privacy policies. We argue that such interoperability can be enabled through agreement over vocabularies using linked data principles. The W3C Data Privacy Vocabulary and Controls Community Group (DPVCG) was set up to jointly develop such vocabularies towards interoperability in the context of data privacy. This report presents the resulting Data Privacy Vocabulary (DPV), along with a discussion on its potential uses, and an invitation for feedback and participation.



H2020-ICT-2016-2017 Project No. 731601



1 Introduction

Concerns regarding privacy and trust have been raised to a point where regulators, citizens, and companies have started to take action. Services on the Web are often very complex orchestrations of co-operation between multiple actors, and the processing of personal data in Big Data environments is becoming more complex while being less transparent.

Yet, while from a legal point of view, the adoption of the General Data Protection Regulation (GDPR) [10] in April 2016, as well the California Consumer Privacy Act (CCPA) [1] of 2018 regulate processing of personal data, their technical implementation in operative IT systems is far from being standardised. While building privacy-bydesign [7] into systems is a much wider scope, we lack the tools, standards, and best practices for those wanting to be good citizens of the Web to provide interoperable and understandable privacy controls, or to keep records of data processing in an accountable manner, with the possible exception of work on permissions [15] and tracking protection [12], but even those only cover partial aspects.

To this end, the work presented in this report aims to set a basis for the establishment of *interoperable standards* in this domain. In particular, it addresses the following gaps by complementing existing (W3C) standards:

- There are no standard vocabularies to describe and interchange personal data. Such vocabularies are relevant, for instance, to support data subjects' right to data portability under Article 20 of the GDPR [10].
- There are no agreed upon vocabularies or taxonomies for describing *purposes* of personal data handling and *categories of processing*: the GDPR requires legal bases for data processing, including consent, be tied to the specific *purposes* and *processing* of personal data to justify their lawful use. Consequently personal data processing should be logged with a standard reference to a purpose which complies with the norms set by the legal bases such as the individual's consent. The concrete taxonomies for representing this information in the context of personal data handling are not yet standardised.
- There are no agreed upon vocabularies or ontologies that align the *terminology of privacy legislations* such as the GDPR, to allow organisations to claim compliance with such regulations using machine-readable information.

The herein presented Data Privacy Vocabulary (DPV) aims at addressing these challenges by providing a comprehensive, standardized way set of terms for annotating provacy policies, consent receipts, and - in general - records of personal data handling. To this end, the rest of the report is structured as follows: Section 2 explains the setup and governance of the DPV Community group within the World Wide Web Consortium (W3C) whereafter Section 3 summarizes pre-existing relevant vocabularies and standards that served as inputs. Section 4 describes the methodology that we applied in reconciling these towards the DPV vocabulary. The vocabulary itself and its modules are described in Section 5 (ommitting detailed descriptions of all classes and properties, which can be found in the published W3C CG draft at https://www.w3.org/ns/dpv). We close with a discussion of applications and adoption (Section 6) followed by conclusions and a call for participation and feedback (Section 7).





2 DPVCG: Data Privacy Vocabularies and Controls CG

To address the gaps mentioned in Section 1, a W3C workshop was announced¹, which received 32 position statements and expressions of interest. These were used to create an agenda based on standards and solutions for interoperable privacy. The workshop took place on 17th and 18th April 2018 in Vienna and consisted of about 40 participants. Discussions and interactions were structured into sessions around the four themes of: (1) 'relevant vocabularies and initiatives', (2) 'industry perspective', (3) 'research topics', and (4) 'governmental side and initiatives'. The workshop concluded with a discussion of the next steps and priorities in terms of standardisation and interoperability. The identified goals were (from highest to lowest priority): taxonomies for regulatory privacy terms (including GDPR), personal data, purposes, disclosure and consent (as well as other legal bases), details of anonymisation (and measures taken to protect personal data), and for recording logs of personal data processing.

Following this, a W3C Community Group (CG) with the title '*Data Privacy Vocab*ularies and Controls CG' (DPVCG) was formally established on 25^{th} May 2018 - the implementation date of the GDPR. The group has a total of 55 participants to date representing academia, industry, legal experts, and other stakeholders. Its discussions are open via the public mailing list², along with a wiki³ documenting meetings, resources, general information.

The CG had its first face-to-face meeting on 30^{th} August 2018 co-located with the MyData 2018⁴ conference at Helsinki, Finland. The goal of this meeting was agreement on the first steps and deliverables of the CG as well as establishment of meeting and management procedures. The outcome of this meeting was agreement on working towards the following deliverables:

- Use cases and requirements: Collect and align common requirements from industry and stakeholders to identify areas where interoperability is needed in the handling of personal data. The outcome of this was a prioritised list of requirements to enable interoperability in the identified use-cases.
- Alignment of vocabularies and identification of overlaps: Collect existing vocabularies and standardisation efforts, and identify their overlaps and suitability for covering the requirements prioritised in step one. The identified vocabularies are presented in Section 3.
- Glossary of GDPR terms: An understandable and interoperable glossary of common terms from the GDPR and an analysis of how they are covered by the agreed vocabularies.
- Vocabularies: Based on the heterogeneity or homogeneity of identified use-cases and requirements, create a set of (modular) vocabularies for exchanging and representing information in an interoperable form for personal data, purposes, processing, consent, anonymisation, and transparency logs. The resulting vocabulary is presented in Section 5.

⁴https://mydata2018.org/





¹https://www.w3.org/2018/vocabws/

²https://lists.w3.org/Archives/Public/public-dpvcg/

³https://www.w3.org/community/dpvcg/wiki/Main_Page

A second face-to-face meeting was conducted on $3^{\rm rd}$ and $4^{\rm th}$ December 2019 at Vienna, Austria. The goal of this meeting was to analyse the collected use-cases and vocabularies, to establish agreement on the requirements for vocabularies to be delivered, and to plan ahead towards their conception and completion. A third face-to-face was organised on $4^{\rm th}$ and $5^{\rm th}$ April 2019 in Vienna and Dublin to finalise the vocabulary and reach an agreement towards the first public draft. The outcome of the meeting was agreement of terms used and its expression using RDF and OWL. The meeting also provided agreement over the namespace of the vocabulary, its hosting, and documentation. After over a year of collaborative effort, the CG published the '*Data Privacy Vocabulary*' (DPV) on $26^{\rm th}$ July 2019. The CG is currently welcoming feedback for DPV from the community and stakeholders in terms of comments, suggestions, and contributions.

3 Existing and Relevant Vocabularies

Existing relevant use cases and vocabularies were collected and documented in the wiki⁵ through individual submissions by CG members. The wiki page for each vocabulary presents a summary, its relevance, covered requirements, uptake, and applicable usecases. Relevant terms were then identified from each vocabulary and categorised as per requirements. These were used as the basis for discussions regarding terms to be included and aligned in the DPV.

3.1 Existing Standards and Standardisation Efforts

The CG considered several web-relevant standards for terms relevant towards identified requirements: PROV-O [17] (and its extension P-Plan [13]) for provenance, ODRL [15] for expressing policies, vCard [14] for describing people and organisations, Activity Streams [27] for describing activities on the web, and Schema.org [26] for metadata used in description of web pages.

The CG also considered standardisation efforts undertaken by bodies relevant to the areas of privacy and interoperability. Classification of Everyday Living (COEL) [8] describes a privacy-by-design framework for the collection and processing of behavioural data with a focus on transparency and pseudo-anonymisation. It was developed by OA-SIS, which is a non-profit organisation dedicated to the development of open standards.

The ISA² is a programme by the by the European Parliament and the Council of European Union for development of interoperable framework and solutions, which includes a set of vocabularies, termed 'Core Vocabularies' [2], for person, business, location, criterion and evidence, and public organisation. IEEE P7012 [20] is a work-in-progress effort to standardise privacy terms in a machine-readable manner for use and sharing on the web.

Consent Receipt [18] is an interoperable standard developed by the Kantara Initiative for capturing the consent given by a person regarding use of their personal data. The standard enables creation of receipts in human as well as machine readable formats for expressing information using pre-defined categories for personal data collection, purposes, and its use and disclosire. However, it does not address the requirements specified by the GDPR.

⁵https://www.w3.org/community/dpvcg/wiki/Use-Cases,_Requirements,_Vocabularies





The Platform for Privacy Preferences Project (P3P) [19] is a (now-abandoned) protocol for websites to declare their intended use of personal data collection and usage with an emphasis on providing users with more control of their personal information when browsing the web. P3P provided a machine-readable vocabulary for websites and users to define their policies, which were then compared to determine privacy actions.

3.2 Vocabularies addressing Privacy and GDPR

The Scalable Policy-aware Linked Data Architecture For Privacy, Transparency and Compliance (SPECIAL) is an European H2020 project that uses semantic-web technologies in the expression and evaluation of information for GDPR compliance. SPECIAL has developed vocabularies for expressing Usage Policy [6] and Policy Log [4] in order to evaluate whether the recorded use of personal data is compliant with a given consent.

Mining and Reasoning with Legal Texts (MIREL) is another European H2020 project that uses semantic-web technologies for GDPR compliance. It has developed PrOnto (Privacy Ontology for Legal Reasoning) [21] - a legal ontology of concepts consisting of privacy agents, personal data types, processing operations, rights and obligations.

GDPRtEXT [23] provides a linked data version of the text of the GDPR that makes it possible for links to be established between information and the text of the GDPR by using RDF and OWL. It also provides a thesauri or vocabulary of concepts defined or referred to within the GDPR in a machine-readable manner using SKOS.

GDPRov [24] is an ontology to represent processes and activities associated with the lifecycle of personal data and consent as an abstract model or plan indicating what is supposed to happen, as well as the corresponding activity logs indicating things that have happened. It extends PROV-O and P-Plan with GDPR-specific terminology. GConsent [22] is an ontology for expressing necessary information for management and evaluating compliance of consent as governed by the obligations and requirements of the GDPR.

Considered ontologies developed prior to implementation of GDPR also include an ontology to express privacy preferences [25], a data protection ontology based on the GDPR [3], and an ontology for expressing consent [11].

4 Methodology

Following the collection of vocabularies, relevant terms were documented in the wiki⁶, and were used as the basis for further discussion for addressing the requirements. While initially working towards a taxonomy of terms, the necessity of representing relationships and logic led towards an RDF/OWL based ontology.

The process of ontology development was (informally) loosely based on NeOn methodology scenarios [28], with the CG using the SPECIAL Usage Policy Language [6] as the base ontology combined with modular ontologies representing personal data categories, purposes, processing, technical and organisational measures, legal basis, and consent.

The aim of the ontology was stated to provide an extendable mechanism for representing information by providing the necessary top-level concepts and relationships in a hierarchical structure. To this end, an analysis of existing vocabularies was carried out to determine their suitability, which revealed a lack of top-level concepts which could

⁶https://www.w3.org/community/dpvcg/wiki/Taxonomy





be readily incorporated. Therefore, the CG created the necessary concepts by inviting contributions and reviewing them through discussions.

The agreement over how terms were proposed, discussed, and added was documented through a collaborative spreadsheet hosted on the Google Sheets platform⁷. The spread-sheet contained separate tabs for each 'modular' ontology and a base ontology representing combined their combined usage to represent personal data handling. The columns in the spreadsheet were mapped to semantic web representations, as depicted in Table 1. The vocabulary was created by using the Google Drive API in a script⁸ that extracted terms and generated RDF serialisations using rdflib⁹ and documentation using ReSpec¹⁰.

Column Name	Description	Representation
Class/Property	If term is Class or Property	rdfs:Class/rdfs:Property
term	The IRI of the term	as IRI
description	Description or definition	dct: description
domain	Domain if it is a property	rdfs:domain
range	Range if it is a property	rdfs:range
super classes/properties	Parent classes or properties	rdfs: is SubClass Of
sub classes/properties	Child classes or properties	N/A
related terms	Terms relevant to this	rdfs:seeAlso
how related?	Nature of relation	use as is
comments	Comments used for discussion	N/A
source	The source of the term	rdfs: is Defined By
date	Date of creation	dct:created
status	Status e.g. accepted, proposed	sw:term_status
comments	Comments to be recorded	rdfs:comment
contributor	dc:creator	dct:creator
date-accepted	Date of acceptance	<i>dct:date</i> -accepted
resolution	Record e.g. minutes of meeting	as IRI

Table 1: Columns in spreadsheet for generating RDF serialisations and documentation

5 Data Privacy Vocabulary

As a result of the process above, the 'Data Privacy Vocabulary' (DPV) has been published on 26th July 2019 at the namespace http://w3.org/ns/dpv (for which we will use the prefix dpv:) as a public draft for feedback. The current vocabulary provides terms (classes and properties) to annotate and categorise instances of *legally compliant per*sonal data handling. In particular, DPV provides extensible concepts and relationships to describe the following components (which are elaborated in further sections):

1. Personal Data Categories

¹⁰https://github.com/w3c/respec





⁷https://www.google.com/sheets/about/

⁸https://github.com/dpvcg/extract-sheets/

⁹https://github.com/RDFLib/rdflib

- 2. Purposes
- 3. Processing Categories
- 4. Technical and Organisational Measures
- 5. Legal Basis
- 6. Consent
- 7. Recipients, Data Controllers, Data Subjects

These terms are intended to express *Personal Data Handling* in a machine-readable form by specifying the *personal data categories* undergoing some *processing*, for some *purpose*, by *data controller*, justified by *legal basis*, with specific *technical and organisational measures*, which may result in data being shared with some *recipient*.

The vocabulary is built up in a modular fashion, where each 'module' covers one of the above listed aspects, and which is linked together using a core Base Vocabulary.

5.1 Base Ontology

The 'Base Ontology' describes the top-level classes defining a policy for legal personal data handling. Classes and properties for each top-level class are further elaborated using sub-vocabularies, which are available as separate modules and are outlined in sub-sequent sections. While all concepts in DPV share a single dpv: namespace, the modular approach of providing the base ontology as a separate module makes it possible to use sub-vocabularies without the dpv:PersonalDataHandling class, for example to refer only to purposes. Exceptions to this are the NACE purpose taxonomy (cf. details Section 5.3) extending the dpv:Sector concept in the Purposes vocabulary, and the GDPR legal bases taxonomy (cf. details in Section 5.6) extending the top-level dpv:LegalBasis class - which are provided under a separate namespaces to indicate their specialisation. The core concepts of the Base Ontology module and their relationships are depicted in Figure 1.

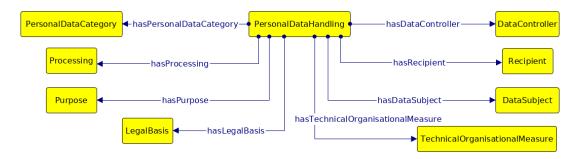


Figure 1: DPV Base Ontology classes and properties





5.2 Personal Data Categories

DPV provides broad top-level personal data categories adapted from the taxonomy provided by EnterPrivacy [9]. The top-level concepts in this taxonomy refer to the nature of information (financial, social, tracking) and to its inherent source (internal, external). Each top-level concept is represented in the DPV as a class, and is further elaborated by subclasses for referring to specific categories of information - such as preferences or demographics.

Regulations such as the GDPR allow information about personal data used in processing to be provided either as specific instances of persona data (e.g., "John Doe") or as categories (e.g., name). Additionally, the class dpv:SpecialCategoryOfPersonalData represents categories that are 'special' or 'sensitive' and require additional conditions as per GDPR's Article 9.

The categories defined in the personal data taxonomy can be used directly or further extended to refer to the scope of personal data used in processing. The taxonomy can be extended by subclassing the respective classes to depict specialised concepts, such as "likes regarding movies" or combined with classes to indicate specific contexts. The class dpv:DerivedPersonalData is one such context where information has been derived from existing information, e.g., inference of opinions from social media. Additional classes can be defined to specify contexts such as use of machine learning, accuracy, and source.

While the taxonomy is by no means exhaustive, the aim is to provide a sufficient coverage of abstract categories of personal data which can be extended using the subclass mechanism to represent concepts used in the real-world. For instance, Figure 2. shows the hierarchy of concepts for classifying depictions of individuals in pictures.

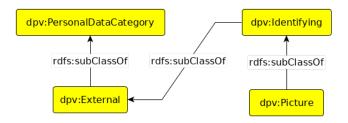


Figure 2: Hierarchy of concepts for classifying depictions of individuals in pictures (inspired by EnterPrivacy [9])

5.3 Purposes

DPV at present defines a hierarchically (by subclassing) organized set of generic categories of data handling *purposes*, as depicted in Figure 3. Overall, DPV provides a list of 31 suggested purposes as subclasses of these generic purposes which may be extended as shown in Listing 1 by further subclassing to create more specific ones. As regulations such as the GDPR generally require a specific purpose to be declared in an understandable manner, we suggest to such declare specific purposes as subclasses of one or several dpv:Purpose categories to make them as specific as possible, and to always annotate them with a human readable description (e.g., by using rdfs:label and rdfs:comment).



H2020-ICT-2016-2017 Project No. 731601



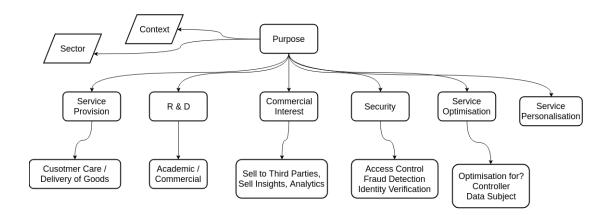


Figure 3: Categories of Purposes for Data Processing in DPV

```
1 :NewPurpose
2 rdfs:subClassOf dpv:DeliveryOfGoods, dpv:FraudPreventionAndDetection;
3 rdfs:label "New Purpose";
4 rdfs:comment "Intended delivery of goods with fraud prevention".
```

Listing 1: Extending pre-defined purposes with human-readable descriptions

Moreover, purposes can be further restricted to specific *contexts* using the class dpv:Context and the property dpv:hasContext. Similarly, DPVCG provides a way to restrict purposes to a specific *business sector*, i.e., allowing/restricting data handling to purposes related to particular business activities, using the class dpv:Sector and the property dpv:hasSector. Potential hierarchies for defining such business sectors include NACE¹¹ (EU), NAICS¹² (USA), ISIC¹³ (UN), and GICS¹⁴. At the moment, we recommend to use NACE (EU) codes using dpv-nace:NACE-CODE as shown in Listing 2, where the prefix dpv-nace: represents the DPV defined namespace http://www.w3.org/ns/dpv-nace#.

```
1 :SomePurpose a dpv:Purpose ;
2 rdfs:label "Some Purpose" ;
3 dpv:hasSector dpv-nace:M72 .
```

Listing 2: Creating a new purpose and restricting it to Scientific Research using the NACE sector code (M.72)

```
<sup>11</sup>https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&
StrNom=NACE_REV2
```

```
<sup>12</sup>https://www.census.gov/eos/www/naics/
```

```
<sup>13</sup>https://unstats.un.org/unsd/classifications
```

```
<sup>14</sup>https://en.wikipedia.org/wiki/Global_Industry_Classification_Standard#cite_
```

```
note-mapbook-1
```





5.4 Processing Categories

In this module, DPV provides a hierarchy of classes to specify operations associated with processing of personal data, which are required by regulations such as the GDPR. As common processing operations such as collect, share, and use have certain constraints or obligations in GDPR, it is necessary to accurately represent and define them for personal data handling. While the term 'use' is liberally used to refer to a broad range of processing categories in privacy notices, we recommend to select the most appropriate and specific terms to accurately reflect the nature of processing as applicable.

DPV defines top-level classes to represent the following broad categories of processing - Disclose, Copy, Obtain, Remove, Store, Transfer, Transform, and Use, as shown in Figure 4. Each of these are then again further expanded using subclasses to provide 33 processing categories, which includes terms defined in the definition of processing in GDPR (Article 4-2).

The DPVCG taxonomy further provides properties with a boolean range to indicate the nature of processing regarding *Systematic Monitoring*, *Evaluation or Scoring*, *Automated Decision-Making*, *Matching or Combining*, *Large Scale processing*, and *Innovative use of new solutions*, as these are relevant towards assessment of processing for GDPR compliance.

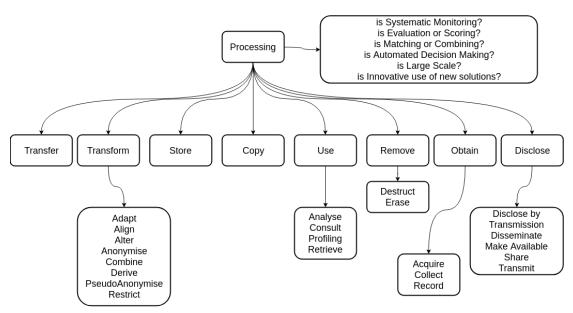


Figure 4: Categories of Data Processing in DPV

5.5 Technical and Organisational Measures

Regulations require certain technical and organisational measures to be in place depending on the context of processing involving personal data. For example, GDPR (Article 32) states implementing appropriate measures by taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of process-





ing, as well as risks, rights and freedoms. Examples of measures stated in the article states include:

- the pseudonymisation and encryption of personal data
- the ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services
- the ability to restore the availability and access to personal data in a timely manner in the event of a physical or technical incident
- a process for regularly testing, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of the processing

To address these requirements, DPV defines a module comprising of a hierarchical vocabulary for declaring such technical and organisational measures, as shown in Figure 5.

For any of the DPV declared measures, we provide a generic ObjectProperty (dpv:measureImplementedBy), and for the values of this attribute, we either allow a blank node with a single rdfs:comment to describe the measure, or a URI to a standard or best practice followed, i.e. a well-known identifier for that standard or a URL where the respective document describes the standard. The class *StorageRestriction* represents the measures used for storage of data with two specific properties provided for storage location and duration restrictions. While at the moment, we do not yet refer to specific certifications or security standards, in the future, we plan to provide a collection of URIs for identifying recommended standards and best practices, as they further develop. Feedback on adding specific ones to future versions of the DPV specification is particularly welcome.

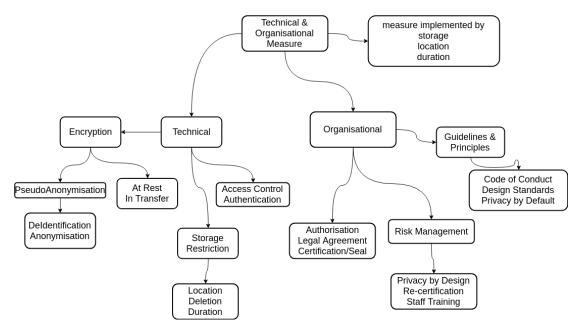


Figure 5: Technical and Organisational Measures in DPV



H2020-ICT-2016-2017 Project No. 731601



5.6 Consent and other Legal Bases

While the vocabulary provides dpv:LegalBasis as a top-level concept representing the various legal bases that can be used for justifying processing of personal data, such legal bases may be defined differently in different legislations within the scope of legal jurisdictions. For the particular case of GDPR, we therefore provide the legal bases specific to GDPR as a separate aligned vocabulary, under the https://www.w3.org/ns/dpv-gdpr namespace (prefix: dpv-gdpr:).

This vocabulary defines the legal bases defined by Articles 6 and 9 of the GDPR, including consent, along with their description and source within: dpv-gdpr:A6-1-b, for example, denotes the legal basis provided by *fulfillement/performance of a contract*.

In addition to the legal bases, Consent is addressed with additional properties and classes within the core DPV vocabulary as it is a common form of legal justification across jurisdictions. The module describing consent, illustrated in Figure 6, provides the necessary terms to describe consent provision, withdrawal, and expiry. This is based on an analysis of existing work in the form of Consent Receipt [18] and GConsent [22].

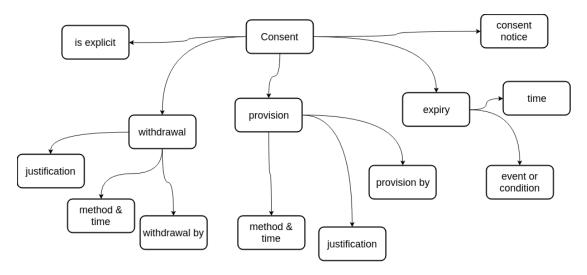


Figure 6: Consent in DPV

5.7 Recipients, Data Controllers, and Data Subjects

Last but not least, this module of the ontology is meant for defining a taxonomy of stakeholders involved in Personal DataHandling, extending the top level classes dpv:Data-Controller, dpv:DataSubject, and dpv:Recipient from the Base vocabulary module. We consider defining recipients is important in the context of data privacy as it allows tracking the entities personal data is shared/transferred with. Similarly, a categorisation of Data Controllers and Data Subjects has bearing on the privacy of personal data handling, especially when considering situations such as where data subjects are children. The vocabulary currently provides only a few top-level classes to describe such recipients and data subjects, with an invitation to suggest/provide more terms for future releases:



H2020-ICT-2016-2017 Project No. 731601



- dpv:Child as a subclass of dpv:DataSubject in order to capture policies and restrictions of data Handling related to children;
- dpv:Processor as a subclass of dpv:Recipient to denote natural or legal persons, public authorities, agencies or other bodies which *processes personal data on behalf of the controller*;
- dpv:ThirdParty as a subclass of dpv:Recipient to provide a generic class for third party recipients, i.e. natural or legal persons, public authorities, agencies or bodies *other than the data subject, controller, processor* and persons who, under the direct authority of the controller or processor, are authorised to process personal data.

6 Potential Adoption and Usage

The primary aim of DPV is to assist in the representation of information concerning privacy in the context of personal data processing. To this end, it models concepts at an abstract or top-level to cover a broad range of concepts. This shall enable the DPV to be used as an domain-independent vocabulary which can be extended or specialised for specific domains or use-cases. Though the DPV does not define or restrict how such extension should be created, this section highlights some suggested methods for its adoption and usage.

Firstly, the modular nature of DPV enables adoption of a selected subset of the vocabulary only to address a specific use-case. For example, an adopter may only wish to utilise the concepts under *Purpose* and *PersonalDataCategory* without using/describing all aspects of a particular *PersonalDataHandling* from the base vocabulary.

In addition, the use of RDFS and OWL enables extending the DPV in a compatible manner to define domain-specific use-cases. For example, an extension targeting the finance domain can define additional concepts by using RDFS' subclass mechanism. Such an extension, when represented as an ontology, will be compatible with the DPV, and will enable semantic interoperability of information, and ideally applications such as automated compliance checking for privacy policies and data handling records annotated with DPV and its extensions.

The DPV is intended to be used as an interoperable vocabulary where terms are structured in a hierarchy and have unambiguous definition to enable common agreement over their semantics. Such usage involves limiting the concepts to other pre-defined vocabulary, as seen in the case of Consent Receipts [18] and the SPECIAL vocabularies [4].

The SPECIAL project actually has demonstrated how the above-mentioned use case of automated compliance checking can be implemented based modeling privacy policies and log records of personal data handling in a manner compatible with DPV, cf. [16]. The SPECIAL project ¹⁵ with its industry use case partners may also be viewed as a set of early adopters of the DPV, where currently further tools and a scalable architecture for transparent and accountable personal data processing in accordance with GDPR is being developed.

¹⁵http://www.specialpricacy.eu





7 Conclusion

The Data Privacy Vocabulary is the outcome of cumulative effort of over a year in W3C's Data Privacy Vocabulary and Controls Community Group (DPVCG). It represents the first step towards an effort to provide a standardised vocabulary to represent instances of legally compliant personal data handling. To this end, it provides a modular vocabulary representing concepts of personal data categories, purposes of processing, categories of processing, technical and organisational measures, legal bases, recipients, and consent.

With the onset of regulations in the privacy domain, the DPV fills an important gap by providing the necessary terms in an interoperable and extendable format. It is, to the best of our knowledge, currently the most comprehensive vocabulary regarding definition of privacy-related terms in addition to being aligned with regulations such as the GDPR, and attempting to comprehensively cover the relevant aspects of personal data handling. For continued development of this work, the DPVCG is currently inviting participation in the form of comments, feedback, and suggestions. Specifically, the DPVCG kindly requests proposals to extend its initial taxonomies by additional terms, where these are missing or need refinements in order to describe specific use cases of personal data handling.

Future plans also include producing documented examples of how the DPV could be adopted for further specific use-cases. Examples include annotating privacy policies, documenting information for specific laws such as GDPR, and producing transparent, machine-readable processing logs (for instance by mapping the DPV to existing database schemas and thereby generating/aggregating machine-readable transparency records directly out of their logging.

Acknowledgements

We thank all members of the W3C DPVCG for their feedback and input to this work: a preliminary outline of the goals of CG has been presented in ISWC2018's SWSG workshop [5] where we also gathered valuable feedback by the participants; this work is the first complete presentation of the resulting, proposed vocabulary elaborated by the DPVCG since. The work of DPVCG was further supported by the European Union's Horizon 2020 research and innovation programme under grant 731601 (SPECIAL), by the Austrian Research Promotion Agency (FFG) under the projects "EXPEDITE" and "CitySpin", by the ADAPT Centre for Digital Excellence funded by SFI Research Centres Programme (Grant 13/RC/2106), and co-funded by European Regional Development Fund.





Bibliography

- [1] Assembly Bill No. 375 Privacy: personal information: businesses. California State Legislature (Jun 2018), https://leginfo.legislature.ca.gov/faces/ billTextClient.xhtml?bill_id=201720180AB375
- [2] Aleksandrova, Z.: Core Vocabularies (Nov 2016), https://ec.europa.eu/isa2/ solutions/core-vocabularies_en
- [3] Bartolini, C., Muthuri, R.: Reconciling Data Protection Rights and Obligations: An Ontology of the Forthcoming EU Regulation. In: Workshop on Language and Semantic Technology for Legal Domain. p. 8 (2015)
- [4] Bonatti, B.A., Dullaert, W., Fernandez, J.D., Kirrane, S., Milosevic, U., Polleres, A.: The SPECIAL Policy Log Vocabulary (Nov 2018), https://aic.ai.wu.ac. at/qadlod/policyLog/
- [5] Bonatti, P., Bos, B., Decker, S., Fernández, J.D., Kirrane, S., Peristeras, V., Polleres, A., Wenning, R.: Data privacy vocabularies and controls: Semantic web for transparency and privacy. In: Semantic Web for Social Good Workshop (SWSG) co-located with ISWC2018. CEUR Workshop Proceedings, vol. 2182. CEUR-WS.org (Oct 2018), http://ceur-ws.org/Vol-2182/paper_3.pdf
- [6] Bonatti, P.A., Kirrane, S., Petrova, I.M., Sauro, L., Schlehahn, E.: The SPECIAL Usage Policy Language, V0.1. Tech. rep. (2018), https://www.specialprivacy. eu/vocabs
- [7] Cavoukian, A., et al.: Privacy by design: The 7 foundational principles. Information and Privacy Commissioner of Ontario, Canada 5 (2009)
- [8] Classification of Everyday Living Version 1.0 (Jan 2019), https://docs. oasis-open.org/coel/COEL/v1.0/os/COEL-v1.0-os.pdf
- [9] Cronk, R.J.: Categories of personal information (Mar 2017), https:// enterprivacy.com/2017/03/01/categories-of-personal-information/, Enterprivacy Consulting Group
- [10] European Parliament and Council: Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (May 2016)





- [11] Fatema, K., Hadziselimovic, E., Pandit, H.J., Debruyne, C., Lewis, D., O'Sullivan, D.: Compliance through Informed Consent: Semantic Based Consent Permission and Data Management Model. In: Proceedings of the 5th Workshop on Society, Privacy and the Semantic Web - Policy and Technology (PrivOn2017) (PrivOn) (2017), http://ceur-ws.org/Vol-1951/PrivOn2017_paper_5.pdf
- [12] Fielding, R.T., Singer, D.: Tracking Preference Expression (DNT) (Jan 2019), https://www.w3.org/TR/tracking-dnt/
- [13] Garijo, D., Gil, Y.: The P-PLAN Ontology (Mar 2014), http://vocab. linkeddata.es/p-plan/
- [14] Iannella, R., McKinney, J.: vCard Ontology for describing People and Organizations (May 2014), https://www.w3.org/TR/vcard-rdf/
- [15] Iannella, R., Villata, S.: ODRL Information Model 2.2 (Feb 2018), https://www. w3.org/TR/odrl-model/
- [16] Kirrane, S., Bonatti, P., Fernández, J.D., Galdi, C., Sauro, L., Dell'Erba, D., Petrova, I., Siahaan, I.: SPECIAL deliverable d2.8 – transparency and compliance algorithms v2 (Nov 2018), https://www.specialprivacy.eu/images/ documents/SPECIAL_D28_M23_V10.pdf
- [17] Lebo, T., Sahoo, S., McGuinness, D., Belhajjame, K., Cheney, J., Corsar, D., Garijo, D., Soiland-Reyes, S., Zednik, S., Zhao, J.: PROV-O: The PROV Ontology (2013)
- [18] Lizar, M., Turner, D.: Consent Receipt Specification v1.1.0. Tech. rep., Kantara Initiative (2017), https://docs.kantarainitiative.org/cis/ consent-receipt-specification-v1-1-0.pdf
- [19] P3p: The Platform for Privacy Preferences, https://www.w3.org/P3P/
- [20] P7012 Standard for Machine Readable Personal Privacy Terms, https:// standards.ieee.org/project/7012.html
- [21] Palmirani, M., Martoni, M., Rossi, A., Bartolini, C., Robaldo, L.: PrOnto: Privacy Ontology for Legal Reasoning. In: Kő, A., Francesconi, E. (eds.) Electronic Government and the Information Systems Perspective. pp. 139–152. Lecture Notes in Computer Science, Springer International Publishing (2018)
- [22] Pandit, H.J., Debruyne, C., O'Sullivan, D., Lewis, D.: GConsent A Consent Ontology Based on the GDPR. In: Hitzler, P., Fernández, M., Janowicz, K., Zaveri, A., Gray, A.J., Lopez, V., Haller, A., Hammar, K. (eds.) The Semantic Web. pp. 270–282. Lecture Notes in Computer Science, Springer International Publishing (2019), https://w3id.org/GConsent
- [23] Pandit, H.J., Fatema, K., O'Sullivan, D., Lewis, D.: GDPRtEXT GDPR as a Linked Data Resource. In: The Semantic Web - European Semantic Web Conference. pp. 481-495. Lecture Notes in Computer Science, Springer, Cham (Jun 2018). https://doi.org/10/c3n4, https://link.springer.com/chapter/10.1007/ 978-3-319-93417-4_31





- [24] Pandit, H.J., Lewis, D.: Modelling Provenance for GDPR Compliance using Linked Open Data Vocabularies. In: Proceedings of the 5th Workshop on Society, Privacy and the Semantic Web - Policy and Technology (PrivOn2017) (PrivOn) (2017), http://ceur-ws.org/Vol-1951/PrivOn2017_paper_6.pdf
- [25] Sacco, O., Passant, A.: A Privacy Preference Ontology (PPO) for Linked Data. In: LDOW. Citeseer (2011), http://citeseerx.ist.psu.edu/viewdoc/download? doi=10.1.1.357.3591&rep=rep1&type=pdf
- [26] schema.org, https://schema.org/
- [27] Snell, J.M., Prodromou, E.: Activity Streams 2.0 (May 2017), https://www.w3. org/TR/activitystreams-core/
- [28] Suárez-Figueroa, M.C., Gómez-Pérez, A., Fernández-López, M.: The NeOn Methodology for Ontology Engineering. In: Suárez-Figueroa, M.C., Gómez-Pérez, A., Motta, E., Gangemi, A. (eds.) Ontology Engineering in a Networked World, pp. 9–34. Springer Berlin Heidelberg, Berlin, Heidelberg (2012). https://doi.org/10.1007/978-3-642-24794-1_2, http://link.springer. com/10.1007/978-3-642-24794-1_2





Data Privacy Vocabulary v0.1

Draft Community Group Report 26 July 2019



Latest editor's draft:

https://w3.org/ns/dpv

Editors:

Harshvardhan J. Pandit (Trinity College Dublin) Axel Polleres (Vienna University of Economics and Business)

Authors:

Bert Bos (W3C/ERCIM) Rob Brennan (Dublin City University) Bud Bruegger (Unabhängige Landeszentrum für Datenschutz Schleswig-Holstein) Fajar J. Ekaputra (Vienna University of Technology) Javier D. Fernández (Vienna University of Economics and Business) Ramisa Gachpaz Hamed (Trinity College Dublin) Elmar Kiesling (Vienna University of Technology) Mark Lizar (OpenConsent/Kantara Initiative) Eva Schlehan (Unabhängige Landeszentrum für Datenschutz Schleswig-Holstein) Simon Steyskal (Siemens) Rigo Wenning (W3C/ERCIM)

<u>Copyright</u> © 2019 the Contributors to the Data Privacy Vocabulary v0.1 Specification, published by the <u>Data Privacy</u> Vocabularies and Controls Community Group under the <u>W3C Community Contributor License Agreement (CLA)</u>. A human-readable summary is available.

Abstract

The Data Privacy Vocabulary (DPV) provides terms (classes and properties) to annotate and categorize instances of legally compliant personal data handling according to the EU General Data Protection Regulation. This scope could be extended by later versions to other data and privacy protection regulations. The vocabulary provides terms to describe which personal data Categories are undergoing a specified kind of processing by a specific data controller and/or transferred to some recipient for a particular purpose, based on a specific legal ground (e.g., consent, or other legal grounds such as legitimate interest, etc.), with specified technical and organisational measures and restrictions (e.g., storage locations and storage durations) in place.

The namespace for DPV terms is http://www.w3.org/ns/dpv#

The suggested prefix for the DPV namespace is dpv

The DPV ontology is available here.

The Github repository for DPV is here.

Status of This Document

This specification was published by the Data Privacy Vocabularies and Controls Community Group. It is not a W3C Standard nor is it on the W3C Standards Track. Please note that under the W3C Community Contributor License Agreement (CLA) there is a limited opt-out and other conditions apply. Learn more about W3C Community and Business Groups.

This document was published by the Data Privacy Vocabularies and Controls Community Group (DPVCG) as a first public working draft.

If you wish to make comments regarding this document, please send them to <u>public-</u>dpvcg@w3.org (subscribe, archives).

EDITOR'S NOTE

Participation

The DPVCG requests participation regarding open issues and welcomes suggestions on their resolution or mitigation. The list of open issues and their discussions to date can be found at https://www.w3.org/community/dpvcg/track/issues/open. Specifically, the DPVCG kindly requests proposals to extend its initial taxonomies by additional terms, where these are missing or need refinements in order to describe specific use cases of personal data handling. A list of issues at the time of creating this document can be found here. Other forms of participation such as comments and feedback are also welcome.

While we welcome participation via any and all mediums - e.g., via <u>Github</u> pull requests or issues, emails, papers, or reports - the formal resolution of contributions will be done via the DPVCG meeting calls and mailing lists. We therefore would suggest submitting submissions there once they reach the stage for formal approval.

Interested participants should submit their suggestions, feedbacks, and comments by 15th September 2019 in order to have them formally reviewed according to the scheduled timeline.

In order to propose/approve new terms, please include the following:

- term suggested URI/identifier
- class/property is the suggested term a class or a property?
- description a natural language description of the term as to be included in the vocabulary to describe the term in an unambiguous manner.
- domain/range for properties include information about domain and range
- superclasses/subclasses for classes include (if applicable) information about known sub/super-classes.
- superproperties/subproperties for properties include (if applicable) information about known sub/super-properties.
- related terms include if applicable otherwise related terms from other vocabularies and explain how they are related (e.g., skos:broader/skos:narrower, rdfs:seeAlso).
- source mention where the new term originates from (e.g., from a legal regulation or from an existing ontology, if possible with a link confirming the reference.

Table of Contents

1.	Introduction
2.	Namespaces
3.	Base Vocabulary
3.1	Classes
3.1.1	Data Controller
3.1.2	Data Subject
3.1.3	Legal Basis
3.1.4	Personal Data Category
3.1.5	Personal Data Handling
3.1.6	Processing
3.1.7	Purpose
3.1.8	Recipient
3.1.9	Technical Organisational Measure
3.2	Properties
3.2.1	has Data Controller
3.2.2	has Data Subject
3.2.3	has Legal Basis
3.2.4	has Personal Data Category
3.2.5	has Processing
3.2.6	has Purpose
3.2.7	has Recipient
3.2.8	has Technical Organisational Measure
4.	Personal Data Categories
4.1	Classes
4.1.1	Accent
4.1.2	Account Identifier
4.1.3	Acquantaince
4.1.4	Age
4.1.5	Apartment Owned
4.1.6	Association
4.1.7	Attitude
4.1.8	Authenticating
4.1.9	Bank Account
4.1.10	Behavioral
4.1.11	Biometric
4.1.12	Blood Type

4.1.13	Browser Fingerprint
4.1.14	Browsing Behavior
4.1.15	Call Log
4.1.16	Car Owned
4.1.17	Certification
4.1.18	Character
4.1.19	Communication
4.1.20	Communications Metadata
4.1.21	Connection
4.1.22	Contact
4.1.23	Country
4.1.24	Credit
4.1.25	Credit
4.1.26	Credit Capacity
4.1.27	Credit Card Number
4.1.28	Credit Record
4.1.29	Credit Score
4.1.30	Credit Standing
4.1.31	Credit Worthiness
4.1.32	Criminal
4.1.33	Criminal Charge
4.1.34	Criminal Conviction
4.1.35	Criminal Pardon
4.1.36	DNACode
4.1.37	Demeanor
4.1.38	Demographic
4.1.39	Derived Personal Data
4.1.40	Device Based
4.1.41	Dialect
4.1.42	Disability
4.1.43	Disciplinary Action
4.1.44	Dislike
4.1.45	Divorce
4.1.46	Drug Test Result
4.1.47	Email Address
4.1.48	Email Content
4.1.49	Employment History
4.1.50	Ethnic Origin
4.1.51	Ethnicity
4 1 50	

4.1.52 External

4.1.53	Family
4.1.54	Family Health History
4.1.55	Family Structure
4.1.56	Favorite
4.1.57	Favorite Color
4.1.58	Favorite Food
4.1.59	Favorite Music
4.1.60	Fetish
4.1.61	Financial
4.1.62	Financial Account
4.1.63	Financial Account Number
4.1.64	Fingerprint
4.1.65	Friend
4.1.66	GPSCoordinate
4.1.67	Gender
4.1.68	General Reputation
4.1.69	Geographic
4.1.70	Group Membership
4.1.71	Hair Color
4.1.72	Health
4.1.73	Health History
4.1.74	Health Record
4.1.75	Height
4.1.76	Historical
4.1.77	House Owned
4.1.78	IPAddress
4.1.79	Identifying
4.1.80	Income
4.1.81	Income Bracket
4.1.82	Individual Health History
4.1.83	Intention
4.1.84	Interaction
4.1.85	Interest
4.1.86	Internal
4.1.87	Job
4.1.88	Knowledge Belief
4.1.89	Language
4.1.90	Life History
4.1.91	Like
1 1 02	Link Clicked

4.1.93	Loan Record
4.1.94	Location
4.1.95	MACAddress
4.1.96	Marital Status
4.1.97	Marriage
4.1.98	Medical Health
4.1.99	Mental Health
4.1.100	Name
4.1.101	Official ID
4.1.102	Offspring
4.1.103	Opinion
4.1.104	Ownership
4.1.105	PINCode
4.1.106	Parent
4.1.107	Password
4.1.108	Personal Possession
4.1.109	Personality
4.1.110	Philosophical Belief
4.1.111	Physical Address
4.1.112	Physical Characteristic
4.1.113	Physical Health
4.1.114	Physical Trait
4.1.115	Picture
4.1.116	Piercing
4.1.117	Political Affiliation
4.1.118	Preference
4.1.119	Prescription
4.1.120	Privacy Preference
4.1.121	Proclivitie
4.1.122	Professional
4.1.123	Professional Evaluation
4.1.124	Professional Interview
4.1.125	Public Life
4.1.126	Purchase
4.1.127	Purchases And Spending Habit
4.1.128	Race
4.1.129	Reference
4.1.130	Relationship
4.1.131	Religion
4 1 132	Religious Belief

4.1.133	Retina
4.1.134	Room Number
4.1.135	Salary
4.1.136	Sale
4.1.137	School
4.1.138	Secret Text
4.1.139	Sexual
4.1.140	Sexual History
4.1.141	Sexual Preference
4.1.142	Sibling
4.1.143	Skin Tone
4.1.144	Social
4.1.145	Social Media Communication
4.1.146	Social Network
4.1.147	Social Status
4.1.148	Special Category Personal Data
4.1.149	Tattoo
4.1.150	Tax
4.1.151	Telephone Number
4.1.152	Thought
4.1.153	Tracking
4.1.154	Transaction
4.1.155	Transactional
4.1.156	UID
4.1.157	Username
4.1.158	Voice Communication Recording
4.1.159	Voice Mail
4.1.160	Weight
4.1.161	Work History
5.	Purposes
5.1	Classes
5.1.1	Academic Research
5.1.2	Access Control
5.1.3	Beneficiary
5.1.4	Commercial Interest
5.1.5	Commercial Research
5.1.6	Context
5.1.7	Create Product Recommendations
5.1.8	Customer Care

5.1.9	Delivery Of Goods
5.1.10	Fraud Prevention And Detection
5.1.11	Identity Verification
5.1.12	Improve Existing Products And Services
5.1.13	Improve Internal CRMProcesses
5.1.14	Increase Service Robustness
5.1.15	Internal Resource Optimisation
5.1.16	Non Commercial Research
5.1.17	Optimisation For Consumer
5.1.18	Optimisation For Controller
5.1.19	Optimise User Interface
5.1.20	Personalised Benefits
5.1.21	Research And Development
5.1.22	Sector
5.1.23	Security
5.1.24	Sell Data To Third Parties
5.1.25	Sell Insights From Data
5.1.26	Sell Products To Data Subject
5.1.27	Sell Targetted Advertisements
5.1.28	Service Optimization
5.1.29	Service Personalization
5.1.30	Service Provision
5.1.31	User Interface Personalisation
5.2	Properties
5.2.1	has Beneficiary
5.2.2	has Context
5.2.3	has Sector
6.	Processing Categories
6.1	Classes
6.1.1	Acquire
6.1.2	Adapt
6.1.3	Align
6.1.4	Alter
6.1.5	Analyse
6.1.6	Anonymise
6.1.7	Collect
6.1.8	Combine
6.1.9	Consult
(1 10	

6.1.10 Сору

6.1.11	Derive
6.1.12	Destruct
6.1.13	Disclose
6.1.14	Disclose By Transmission
6.1.15	Disseminate
6.1.16	Erase
6.1.17	Make Available
6.1.18	Move
6.1.19	Obtain
6.1.20	Organise
6.1.21	Profiling
6.1.22	Pseudo Anonymise
6.1.23	Record
6.1.24	Remove
6.1.25	Restrict
6.1.26	Retrieve
6.1.27	Share
6.1.28	Store
6.1.29	Structure
6.1.30	Transfer
6.1.31	Transform
6.1.32	Transmit
6.1.33	Use
6.2	Properties
6.2.1	innovative Use Of New Solutions
6.2.2	is Automated Decision Making
6.2.3	is Evaluation Scoring
6.2.4	is Large Scale
6.2.5	is Matching Combining
6.2.6	is Systematic Monitoring
_	
7.	Technical and Organisational Measures
7.1	Classes
7.1.1	Access Control Method
7.1.2	Anonymization
7.1.3	Authentication Protocols
7.1.4	Authorisation Procedure
7.1.5	Certification
7.1.6	Certification Seal
7.1.7	Code Of Conduct

Contract
De Identification
Design Standard
Encryption In Rest
Encryption In Transfer
Guidelines Principle
Legal Agreement
NDA
Organisational Measure
Privacy By Default
Privacy By Design
Pseudo Anonymization
Pseudonymisation Encryption
Regularity Of Recertification
Risk Management Procedure
Seal
Staff Training
Storage Deletion
Storage Duration
Storage Location
Storage Restoration
Storage Restriction
Technical Measure
Properties
duration
location
measure Implemented By
storage
Consent
Classes
Consent
Legal Entity
Properties
consent Notice
expiry
expiry Condition
expiry Time
is Explicit
provision By

8.2.7	provision By Justification
8.2.8	provision Method
8.2.9	provision Time
8.2.10	withdrawal By
8.2.11	withdrawal By Justification
8.2.12	withdrawal Method
8.2.13	withdrawal Time
9.	Recipients, Data Controllers, and Data Subjects
9.1	Classes
9.1.1	Child
9.1.2	Data Processor
9.1.3	Third Party
A.	Issues
B.	References
B.1	Informative references

§ 1. Introduction

The Data Privacy Vocabulary provides terms (classes and properties) to annotate and categorize instances of legally compliant personal data handling. In particular, the vocabulary provides extensible taxonomies of terms to describe the following components:

- Personal Data Categories
- Purposes
- Processing Categories
- Technical and Organisational Measures
- Legal Basis
- Consent
- Recipients, Data Controllers, Data Subjects

These terms are intended to annotate Legal Personal Data Handling in a machine-readable fashion, by specifying which personal data categories are undergoing a specific kind of processing, by a specific data controller and/or shared with some recipient for a particular purpose, based on a specific legal ground (e.g., consent or legitimate interest), with specific technical and organisational measures and restrictions (e.g., storage location and storage duration) in place.

NOTE

As the Legal Bases are dependent on legal jurisdictions, we provide the GDPR legal bases (based on Article 6 and Article 9) under a separate aligned vocabulary here.

Descriptions and respective annotations of Legal Personal Data Handling could be used for example to:

- 1. declare personal data handling policies,
- 2. declare consent for a personal data handling policy (by a specific consent action),
- 3. transparently log/document specific personal data handling actions by a data controller, and finally
- 4. to support automated checking of legal compliances of data handling ex ante (before data handling is actually performed), or ex-post (i.e. check compliance to a certain policy and/or consent)

§ 2. Namespaces

The namespace for DPV vocabulary is http://www.w3.org/ns/dpv#. The table below indicates the full list of namespaces and prefixes used in this document.

Prefix	Namespace
dct	http://purl.org/dc/terms/
dpv	http://www.w3.org/ns/dpv#
dpv-gdpr	http://www.w3.org/ns/dpv-gdpr#
dpv-nace	http://www.w3.org/ns/dpv-nace#
odrl	http://www.w3.org/ns/odrl/2/
owl	http://www.w3.org/2002/07/owl#
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs	http://www.w3.org/2000/01/rdf-schema#
skos	http://www.w3.org/2004/02/skos/core#
spl	<pre>http://www.specialprivacy.eu/langs/usage-policy#</pre>
svd	http://www.specialprivacy.eu/vocabs/data#
svdu	<pre>http://www.specialprivacy.eu/vocabs/duration#</pre>

Prefix	Namespace
svl	<pre>http://www.specialprivacy.eu/vocabs/locations#</pre>
svpu	<pre>http://www.specialprivacy.eu/vocabs/purposes#</pre>
svpr	<pre>http://www.specialprivacy.eu/vocabs/processing#</pre>
svr	<pre>http://www.specialprivacy.eu/vocabs/recipients</pre>
xsd	http://www.w3.org/2001/XMLSchema#

§ 3. Base Vocabulary

The 'Base Vocabulary' describes the top-level classes defining a policy for legal personal data handling. Classes and properties for each top-level class are further elaborated using sub-vocabularies, e.g., the Personal Data taxonomy. While all concepts within the vocabulary share a single namespace, the modular approach makes it possible to use the sub-vocabularies without the **:PersonalDataHandling** class, for example to refer only to purposes. Exceptions to this are the NACE purpose taxonomy extending the **:Sector** concept in the Purposes vocabulary, and the GDPR legal bases taxonomy extending the top-level **:LegalBasis** class, which are provided under a separate namespace to indicate their specialisation.

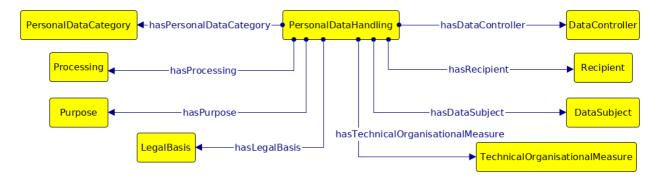


Figure 1 Base Vocabulary

An instance of PersonalDataHandling is associated with one or more instances of Personal Data Category, Purpose, Processing, Recipient, Technical and Organisation Measures, Legal Basis, and Data Controller. The vocabulary provides relevant properties for associating each top-level concept with the PersonalDataHandling class, such as hasPurpose and hasDataSubject to associate with Purpose and Data Subject respectively.

Currently, the DPV vocabulary does not provide any constraints on the inclusion or exclusion of concepts used to define an instance of PersonalDataHandling. Possibilities for this include use of OWL2 semantics and SHACL to define concepts mandatory in an instance of

PersonalDataHandling. For example, one could define that every instance of PersonalDataHandling **MUST** have at least one Personal Data Category, Controller, Purpose, and Legal Basis.

The DPV base ontology is available as an individual module here.

§ 3.1 Classes

:DataController |:DataSubject |:LegalBasis |:PersonalDataCategory | :PersonalDataHandling |:Processing |:Purpose |:Recipient | :TechnicalOrganisationalMeasure

§ 3.1.1 Data Controller

Class:	dpv:DataController
Description:	The class of Data Controllers that control this particular data handling, any legal entity that is defined by article 4.7 of GDPR.
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_7/pnt_g/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez

§ 3.1.2 Data Subject

Class:	dpv:DataSubject
Description:	The class of Data Subject that this particular data handling applies to, any legal entity that is defined by article 4.1 of GDPR.
in Range of:	dpv:hasDataSubject
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_1/pnt_g/oj
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez
Notes:	The alternative to bind a user or role of users to a policy could be to have a special property "hasPersonalDataHandling"

§ 3.1.3 Legal Basis

Class:	dpv:LegalBasis
Description:	A particular legal Basis, which permits personal Data handling (e.g., Consent, etc.)
in Range of:	dpv:hasLegalBasis
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

§ 3.1.4 Personal Data Category

Class:	dpv:PersonalDataCategory
Description:	A category of personal data (as defined by GDPR article 4.1) from the personal data categories taxonomy, i.e. for instance denoting the category of an object/field or data item that is used for processing
Comments:	Harsh: Change name to PersonalDataCategory since DataCategory can be non- personal data. Axel: Agreed
in Range of:	dpv:hasPersonalDataCategory
Source:	DPVCG, SPECIAL Usage Policy Language, https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_1/pnt_g/oj

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan Pandit, Axel Polleres
Notes:	Decide whether we define relation as a super or subclass of SPL, proposal: owl:equivalentClass
Related Terms:	rdfs:seeAlso spl:AnyData

§ 3.1.5 Personal Data Handling

Class:	dpv:PersonalDataHandling
Description:	Top Class to describe a concrete instance of legal personal Data Handling of a defined class of Data Subjects, meaning that a personal Data Category is undergoing specified processing by a specific data controller and/or transferred to some recipient for a particular purpose, based on a specific legal ground, with specified security measures and restrictions (e.g., storage locations and storage durations).
in Domain of:	dpv:hasDataController, dpv:hasDataSubject, dpv:hasLegalBasis, dpv:hasPersonalDataCategory, dpv:hasProcessing, dpv:hasPurpose, dpv:hasRecipient, dpv:hasTechnicalOrganisationalMeasure
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez

§ 3.1.6 Processing

Class:	dpv:Processing
Description:	A type of processing from one of the processing categories in the processing Taxonomy
is Parent Class of:	odrl:Action
in Range of:	dpv:hasProcessing
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez
Related Terms:	rdfs:seeAlso spl:AnyProcessing

§ 3.1.7 Purpose

Class:	dpv:Purpose
Description:	The purpose of Data Handling, from the purposes Taxonomy
in Range of:	dpv:hasPurpose
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez
Related Terms:	rdfs:seeAlso spl:AnyPurpose

§ 3.1.8 Recipient

Class:	dpv:Recipient
Description:	The entities that can access the result of a data handling action/processing, any legal entity that is defined by article 4.9 of GDPR, which states - 'recipient' means a natural or legal person, public authority, agency or another body, to which the personal data are disclosed, whether a third party or not.
in Range of:	dpv:hasRecipient
Source:	DPVCG, SPECIAL Usage Policy Language, https://eur-lex.europa.eu/eli/reg /2016/679/art_4/par_9/pnt_g/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez
Related Terms:	rdfs:seeAlso spl:AnyRecipient

§ 3.1.9 Technical Organisational Measure

Class:	dpv:TechnicalOrganisationalMeasure
Description:	Technical and organisational measures, for instance security measure, storage restrictions etc. required/followed when processing data of the declared category
Comments:	Bud: rename according to GDPR: Technical/Organisational measures
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor: 1

§ 3.2 Properties

:hasDataController|:hasDataSubject|:hasLegalBasis| :hasPersonalDataCategory|:hasProcessing|:hasPurpose|:hasRecipient| :hasTechnicalOrganisationalMeasure

§ 3.2.1 has Data Controller

Property:	dpv:hasDataController
Description:	This property associates a data controller with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:DataController
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 3.2.2 has Data Subject

Property:	dpv:hasDataSubject
Description:	This property associates a data subject with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for

	consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:DataSubject
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 3.2.3 has Legal Basis

Property:	dpv:hasLegalBasis
Description:	This property associates an instance of legal data handling with its underlying legal basis
Domain:	dpv:PersonalDataHandling
Range:	dpv:LegalBasis
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez

§ 3.2.4 has Personal Data Category

Property:	dpv:hasPersonalDataCategory
-----------	-----------------------------

Description:	This property associates a personal data category with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:PersonalDataCategory
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 3.2.5 has Processing

Property:	dpv:hasProcessing
Description:	This property associates a data processing category with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:Processing
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud	
	Contributor:	Bruegger

§ 3.2.6 has Purpose

Property:	dpv:hasPurpose
Description:	This property associates a purpose with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	<u>dpv:PersonalDataHandling</u> U <u>dpv:Consent</u>
Range:	dpv:Purpose
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 3.2.7 has Recipient

Property:	dpv:hasRecipient
Description:	This property associates a recipient with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:Recipient
Source:	DPVCG, SPECIAL Usage Policy Language

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 3.2.8 has Technical Organisational Measure

Property:	dpv:hasTechnicalOrganisationalMeasure
Description:	This property associates a technical/organisational measure with an instance of legal data handling or consent
Comments:	We replicate all the properties except legal basis of personal data handling for consent, to declare what kinds of personal data handling are consented to
Domain:	dpv:PersonalDataHandling U dpv:Consent
Range:	dpv:TechnicalOrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Javier Ferenandez, Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 4. Personal Data Categories

DPVCG provides broad top-level personal data categories adapted from the taxonomy provided by EnterPrivacy. The top-level concepts in this taxonomy refer to the nature of information (financial, social, tracking) and to its inherent source (internal, external). Each top-level concept is represented in the DPVCG vocabulary as a Class, and is further elaborated by subclasses for referring to specific categories of information - such as preferences or demographics.

Regulations such as the GDPR allow information about personal data used in processing to be provided either as specific instances of persona data (e.g., "John Doe") or as categories (e.g., name). Additionally, the class <u>SpecialCategoryPersonalData</u> represents categories that are 'special' or 'sensitive' and require additional conditions as per GDPR's Article 9.

The categories defined in the personal data taxonomy can be used directly or further extended to refer to the scope of personal data used in processing. The taxonomy can be extended by subclassing the respective classes to depict specialised concepts, such as "likes regarding movies" or combined with classes to indicate specific contexts. The class DerivedPersonalData one such context where information has been derived from existing information, e.g., inference of opinions from social media. Additional classes can be defined to specify contexts such as use of machine learning, accuracy, and source.

While the taxonomy is by no means exhaustive, the aim is to provide a sufficient coverage of abstract categories of personal data which can be extended using the subclass mechanism to represent concepts used in the real-world.

NOTE

The property :hasPersonalDataCategory has the range :PersonalDataCategory, therefore, the object of any triple using this property would be inferred as an instance of :PersonalDataCategory. It is an open question for how to refer to a personal data category (class) using this property, as it would infer that class to be an instance as well as a subclass of :PersonalDataCategory. The question is if this is intended and whether it would be semantically correct to specify dpv:hasPersonalDataCategory dpv:EmailAddress .? Other alternative is to scope it within a blank node as: dpv:hasPersonalDataCategory [a dpv:EmailAddress] ., which this would conflate it with instances of email address e.g., < me@example.com > a dpv:EmailAddress.

The DPV Personal Data Categories ontology is available as an individual module here.

§ 4.1 Classes

:Accentl:AccountIdentifierl:Acquantaincel:Agel:ApartmentOwnedl

:Association |:Attitude |:Authenticating |:BankAccount |:Behavioral |

:Biometric|:BloodType|:BrowserFingerprint|:BrowsingBehavior|:CallLog|

:CarOwned|:Certification|:Character|:Communication|

:CommunicationsMetadata |:Connection |:Contact |:Country |:Credit |:Credit |:CreditCapacity |:CreditCardNumber |:CreditRecord |:CreditScore |

:CreditStandingl:CreditWorthinessl:Criminall:CriminalChargel :CriminalConviction |:CriminalPardon |:DNACode |:Demeanor |:Demographic | :DerivedPersonalDatal:DeviceBasedl:Dialectl:Disabilityl :DisciplinaryAction|:Dislike|:Divorce|:DrugTestResult|:EmailAddress| :EmailContentl:EmploymentHistoryl:EthnicOriginl:Ethnicityl:Externall :Family|:FamilyHealthHistory|:FamilyStructure|:Favorite|:FavoriteColor| :FavoriteFood|:FavoriteMusic|:Fetish|:Financial|:FinancialAccount| :FinancialAccountNumber1:Fingerprint1:Friend1:GPSCoordinate1:Gender1 :GeneralReputation |:Geographic |:GroupMembership |:HairColor |:Health | :HealthHistory|:HealthRecord|:Height|:Historical|:HouseOwned|:IPAddress| :Identifying |: Income |: IncomeBracket |: Individual Health History |: Intention | :Interaction |: Interest |: Internal |: Job |: KnowledgeBelief |: Language | :LifeHistory|:Like|:LinkClicked|:LoanRecord|:Location|:MACAddress| :MaritalStatus|:Marriage|:MedicalHealth|:MentalHealth|:Name|:OfficialID| :Offspringl:Opinionl:Ownershipl:PINCodel:Parentl:Passwordl :PersonalPossession |: Personality |: PhilosophicalBelief |: PhysicalAddress | :PhysicalCharacteristic|:PhysicalHealth|:PhysicalTrait|:Picture| :Piercing|:PoliticalAffiliation|:Preference|:Prescription| :PrivacyPreference|:Proclivitie|:Professional|:ProfessionalEvaluation| :ProfessionalInterview1:PublicLife1:Purchase1:PurchasesAndSpendingHabit1 :Racel:Referencel:Relationshipl:Religionl:ReligiousBeliefl:Retinal :RoomNumber1:Salary1:Sale1:School1:SecretText1:Sexual1:SexualHistory1 :SexualPreference|:Sibling|:SkinTone|:Social|:SocialMediaCommunication| :SocialNetwork|:SocialStatus|:SpecialCategoryPersonalData|:Tattoo|:Tax| :TelephoneNumber1:Thought1:Tracking1:Transaction1:Transactional1:UID1 :Usernamel:VoiceCommunicationRecordingl:VoiceMaill:Weightl:WorkHistory

§ 4.1.1 Accent

Class:	dpv:Accent
Description:	Information about an individual's accent.
is SubClass of:	dpv:Language
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.2 Account Identifier

Class:	dpv:AccountIdentifier
Description:	Information about an individual's financial account identifier.
is SubClass of:	dpv:FinancialAccount
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.3 Acquantaince

Class:	dpv:Acquantaince
Description:	Information about acquaintances in a social network.
is SubClass of:	dpv:SocialNetwork
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.4 Age

Class:	dpv:Age
Description:	Information about an individual's age
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.5 Apartment Owned

Class:	dpv:ApartmentOwned
Description:	Information on the apartment(s) owned by an individual.
is SubClass of:	dpv:HouseOwned
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.6 Association

Class:

Description:	Information about associations in a social network with other individuals, groups, or entities, e.g., friend of a friend
is SubClass of:	dpv:SocialNetwork
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.7 Attitude

Class:	dpv:Attitude
Description:	Information that relates to an individual's attitude.
is SubClass of:	dpv:Behavioral
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.8 Authenticating

Class:	dpv:Authenticating
Description:	Information used to authenticate an individual with something they know
is SubClass of:	dpv:Internal

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.9 Bank Account

Class:	dpv:BankAccount
Description:	Information related to an individual's bank account.
is SubClass of:	dpv:FinancialAccount
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.10 Behavioral

Class:	dpv:Behavioral
Description:	Information that describes an individual's behavior or activity, on-line or off
is SubClass of:	dpv:External
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Activity

§ 4.1.11 Biometric

Class:	dpv:Biometric
Description:	Biometric information on an individual.
is SubClass of:	$\underline{dpv:Identifying} \cap \underline{dpv:SpecialCategoryPersonalData}$
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.12 Blood Type

Class:	dpv:BloodType
Description:	Information about an individual's blood type.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.13 Browser Fingerprint

Class:	dpv:BrowserFingerprint
Description:	Information that characterizes the browser used by an individual, which in turn can be used to uniquely identify a user.
is SubClass of:	dpv:DeviceBased
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.14 Browsing Behavior

Class:	dpv:BrowsingBehavior
Description:	Information that relates to an individual's browsing behaviour.
is SubClass of:	dpv:Behavioral
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:OnlineActivity

§ 4.1.15 Call Log

Class:	dpv:CallLog
Description:	Information on the calls that an individual has made.
is SubClass of:	dpv:Behavioral
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.16 Car Owned

Class:	dpv:CarOwned
Description:	Information about cars owned by an individual.
is SubClass of:	dpv:Ownership
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.17 Certification

Class:	dpv:Certification
Description:	Information about professional certifications associated with an individual
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.18 Character

Class:	dpv:Character
Description:	Information about an individual's character in the public sphere
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

4.1.19 Communication

Class:	dpv:Communication
Description:	Information communicated from or to an individual
is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.20 Communications Metadata

Class:	dpv:CommunicationsMetadata
Description:	Information about communication metadata in the public sphere
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Interactive

§ 4.1.21 Connection

Class:	dpv:Connection
--------	----------------

Description:	Information about and including connections of an individual in a social network
is SubClass of:	dpv:SocialNetwork
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.22 Contact

Class:	dpv:Contact
Description:	Information that can be used for contacting an individual, e.g., email address or phone number
is SubClass of:	dpv:Tracking
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Physical

§ 4.1.23 Country

Class:	dpv:Country
--------	-------------

Description:	Information about an individual's country, e.g., residence, travel.
is SubClass of:	dpv:Location
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Notes:	ISSUE-24

§ 4.1.24 Credit

Class:	dpv:Credit
Description:	Information about an individual's reputation with regards to money
is SubClass of:	dpv:Financial
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.25 Credit

Class:	dpv:Credit
Description:	Information about an individual's reputation with regards to money

is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.26 Credit Capacity

Class:	dpv:CreditCapacity
Description:	Information relating to an individual's credit capacity.
is SubClass of:	dpv:Credit
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.27 Credit Card Number

Class:	dpv:CreditCardNumber
Description:	Information about an individual's credit card number
is SubClass of:	dpv:AccountIdentifier
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.28 Credit Record

Class:	dpv:CreditRecord
Description:	Information relating to an individual's credit record.
is SubClass of:	dpv:Credit
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.29 Credit Score

Class:	dpv:CreditScore
Description:	Information relating to an individual's credit score.
is SubClass of:	dpv:CreditWorthiness
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.30 Credit Standing

Class:	dpv:CreditStanding
Description:	Information relating to an individual's credit standing.
is SubClass of:	dpv:Credit
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.31 Credit Worthiness

Class:	dpv:CreditWorthiness
Description:	Information relating to an individual's credit worthiness.
is SubClass of:	dpv:Credit
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.32 Criminal

Class:	dpv:Criminal
Description:	Information about an individual's criminal activity, e.g., criminal convictions or jail time
is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Judicial

§ 4.1.33 Criminal Charge

Class:	dpv:CriminalCharge
Description:	Information on an individual's criminal charges.
is SubClass of:	dpv:Criminal
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.34 Criminal Conviction

Class:	dpv:CriminalConviction
Description:	Information on an individual's criminal convictions.
is SubClass of:	dpv:Criminal
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.35 Criminal Pardon

Class:	dpv:CriminalPardon
Description:	Information on an individual's criminal pardons.
is SubClass of:	dpv:Criminal
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.36 DNACode

Class:

Description:	Information about an individual's DNA.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.37 Demeanor

Class:	dpv:Demeanor
Description:	Information that relates to an individual's demeanor.
is SubClass of:	dpv:Behavioral
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.38 Demographic

Class:	<u>dpv:Demographic</u>
Description:	Information that describes an individual's characteristics shared with others
is SubClass of:	dpv:External

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.39 Derived Personal Data

Class:	dpv:DerivedPersonalData
Description:	Derived data is data that has not been directly provided by the DataSubject, but has been derived from other collected or externally obtained data.
is SubClass of:	dpv:PersonalDataCategory
Status:	accepted
Date Created:	2019-05-07
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Derived

§ 4.1.40 Device Based

Class:	dpv:DeviceBased
Description:	Information about a device that an individual uses for personal use (even part-time or with others)
is SubClass of:	dpv:Tracking
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Computer

§ 4.1.41 Dialect

Class:	dpv:Dialect
Description:	Information about an individual's dialect.
is SubClass of:	dpv:Language
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.42 Disability

Class:	dpv:Disability
Description:	Information about an individual's disabilities.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.43 Disciplinary Action

Class:	dpv:DisciplinaryAction
Description:	Information about disciplinary actions associated with an individual
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.44 Dislike

Class:	dpv:Dislike
Description:	Information relating to a user's dislikes.
is SubClass of:	dpv:Interest
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.45 Divorce

Class:	dpv:Divorce
Description:	Information about an individual's divorce(s).
is SubClass of:	dpv:FamilyStructure
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.46 Drug Test Result

Class:	dpv:DrugTestResult
Description:	Information about an individual's drug test results.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.47 Email Address

Class:	dpv:EmailAddress
Description:	Information about an individual's Email address.
is SubClass of:	dpv:Contact
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.48 Email Content

Class:	dpv:EmailContent
Description:	The contents of Emails that an individual sends or receives.
is SubClass of:	dpv:Communication
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.49 Employment History

Class:	dpv:EmploymentHistory
--------	-----------------------

Description:	Information about an individual's employment history
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.50 Ethnic Origin

Class:	dpv:EthnicOrigin
Description:	Information related to an individual's ethnic origin.
is SubClass of:	dpv:Ethnicity ∩ dpv:SpecialCategoryPersonalData
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.51 Ethnicity

Class:	dpv:Ethnicity
Description:	Information that describes an individual's origins and lineage
is SubClass of:	dpv:External

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.52 External

Class:	dpv:External
Description:	Personal Data that can be observed by another person i.e. has external characteristics that make it visible
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.53 Family

Class:	dpv:Family
Description:	Information about an individual's family and relationships
is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.54 Family Health History

Class:	dpv:FamilyHealthHistory
Description:	Information related to an individual's family health history.
is SubClass of:	dpv:HealthHistory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.55 Family Structure

Class:	dpv:FamilyStructure
Description:	Information that describes an individual's family structure.
is SubClass of:	dpv:Family
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.56 Favorite

Class:	dpv:Favorite
Description:	Information about an individual's favorites
is SubClass of:	dpv:Preference
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.57 Favorite Color

Class:	dpv:FavoriteColor
Description:	Information about an individual's favorite color.
is SubClass of:	dpv:Favorite
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.58 Favorite Food

Class:	dpv:FavoriteFood
Description:	Information about an individual's favorite food.
is SubClass of:	dpv:Favorite
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.59 Favorite Music

Class:	dpv:FavoriteMusic
Description:	Information about an individual's favorite music.
is SubClass of:	dpv:Favorite
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.60 Fetish

Class:	dpv:Fetish
Description:	Information an individual's sexual fetishes
is SubClass of:	dpv:Sexual
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.61 Financial

Class:	dpv:Financial
Description:	Personal data regarding finance or monetary information
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Financial

§ 4.1.62 Financial Account

Class:	dpv:FinancialAccount
--------	----------------------

Description:	Information that identifies an individual's financial account
is SubClass of:	dpv:Financial
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.63 Financial Account Number

Class:	dpv:FinancialAccountNumber
Description:	Information about an individual's financial account number
is SubClass of:	dpv:AccountIdentifier
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.64 Fingerprint

Class:	dpv:Fingerprint
Description:	Information related to an individual's fingerprint used for biometric purposes.
is SubClass of:	dpv:Biometric

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.65 Friend

Class:	dpv:Friend
Description:	Information about friends of the individual in a social network. Includes aspects of friendships such as years together or nature of friendship.
is SubClass of:	dpv:SocialNetwork
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.66 GPSCoordinate

Class:	dpv:GPSCoordinate
Description:	Global position system coordinates of a user's location.
is SubClass of:	dpv:Location
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.67 Gender

Class:	dpv:Gender
Description:	Information about an individual's gender
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.68 General Reputation

Class:	dpv:GeneralReputation
Description:	Information about an individual's reputation in the public sphere
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.69 Geographic

Class:	dpv:Geographic
Description:	Geographic information relating to an individual (e.g., home address)
is SubClass of:	dpv:Demographic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.70 Group Membership

Class:	dpv:GroupMembership
Description:	Information about groups the individual is included or associated with in a social network
is SubClass of:	dpv:SocialNetwork
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.71 Hair Color

Class:	dpv:HairColor
Description:	Information about an individual's hair colour
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.72 Health

Class:	dpv:Health_
Description:	Information about an individual's health.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

Related Terms:

svd:Health

§ 4.1.73 Health History

Class:	dpv:HealthHistory
Description:	Information about an individual's health history.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.74 Health Record

Class:	dpv:HealthRecord
Description:	Information about an individual's health record.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.75 Height

Class:	dpv:Height
Description:	Information about an individual's physical height
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.76 Historical

Class:	dpv:Historical
Description:	Historical personal data is that which is related to or relevant for history or past events in the context of the person or their life.
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.77 House Owned

Class:	dpv:HouseOwned
Description:	Information about house(s) owned by an individual.

is SubClass of:	dpv:Ownership
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.78 IPAddress

Class:	dpv:IPAddress
Description:	An Internet protocol (IP) address of a device used by an individual.
is SubClass of:	dpv:DeviceBased
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.79 Identifying

Class:	dpv:Identifying
Description:	Information that uniquely or semi-uniquely identifies a specific individual
is SubClass of:	dpv:External
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.80 Income

Class:	dpv:Income
Description:	Information about financial income, e.g., for individual or household or family
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.81 Income Bracket

Class:	dpv:IncomeBracket
Description:	Information about an individual's income bracket.
is SubClass of:	dpv:Demographic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.82 Individual Health History

Class:	dpv:IndividualHealthHistory
Description:	Information related to an individual's information health history.
is SubClass of:	dpv:HealthHistory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.83 Intention

Class:	dpv:Intention
Description:	Information about an individual's intentions
is SubClass of:	dpv:Preference
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.84 Interaction

Class:	dpv:Interaction
Description:	Information about an individual's interactions in the public sphere
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.85 Interest

Class:	dpv:Interest
Description:	Information about an individual's interests
is SubClass of:	dpv:Preference
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.86 Internal

Class:	dpv:Internal
Description:	Personal data about characteristics of an individual that are internal i.e. cannot be seen or observed
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.87 Job

Class:	dpv:Job
Description:	Information about an individual's professional jobs
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.88 Knowledge Belief

Class:	dpv:KnowledgeBelief
Description:	Information about what a person knows or believes

is SubClass of:	dpv:Internal
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.89 Language

Class:	dpv:Language
Description:	Information related to an individual's language.
is SubClass of:	dpv:Ethnicity
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.90 Life History

Class:	dpv:LifeHistory
Description:	Information about an individual's personal history (e.g., events that happened in a person's life, either to them or just around them which might have influenced them (WWII, 9/11)).
is SubClass of:	dpv:Historical

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.91 Like

Class:	dpv:Like
Description:	Information relating to a user's likes.
is SubClass of:	dpv:Interest
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.92 Link Clicked

Class:	dpv:LinkClicked
Description:	Information on the links that an individual has clicked.
is SubClass of:	dpv:Behavioral
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Navigation

§ 4.1.93 Loan Record

Class:	dpv:LoanRecord
Description:	Information about loans provided or related to the individual
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.94 Location

Class:	dpv:Location
Description:	Information about an individual's location
is SubClass of:	dpv:Tracking
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Location

§ 4.1.95 MACAddress

Class:	dpv:MACAddress
Description:	A Media Access Control (MAC) address of a device used by an individual.
is SubClass of:	dpv:DeviceBased
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.96 Marital Status

Class:	dpv:MaritalStatus
Description:	Information about an individual's marital status and history
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.97 Marriage

Class:	dpv:Marriage
Description:	Information about an individual's marriage(s).
is SubClass of:	dpv:FamilyStructure
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.98 Medical Health

Class:	dpv:MedicalHealth
Description:	Information that describes an individual's health, medical conditions or health care
is SubClass of:	$\underline{dpv:External} \cap \underline{dpv:SpecialCategoryPersonalData}$
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.99 Mental Health

Class:	dpv:MentalHealth
Description:	Information related to an individual's mental health.
is SubClass of:	dpv:Health
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.100 Name

Class:	dpv:Name
Description:	A name associated with an individual, e.g., given name, nickname.
is SubClass of:	dpv:Identifying
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.101 Official ID

Class:	dpv:OfficialID
Description:	Information on an official identification document used by an individual.
is SubClass of:	dpv:Identifying
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Government

§ 4.1.102 Offspring

Class:	dpv:Offspring
Description:	Information about an individual's offspring(s).
is SubClass of:	dpv:FamilyStructure
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.103 Opinion

Class:	dpv:Opinion
Description:	Information about an individual's opinions
is SubClass of:	dpv:Preference
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.104 Ownership

Class:	dpv:Ownership
Description:	Information about things an individual has owned, rented, borrowed, possessed
is SubClass of:	dpv:Financial
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.105 PINCode

Class:	dpv:PINCode
--------	-------------

Description:	An individual's Personal identification number (PIN) used in the process of authenticating the individual as a user accessing a system.
is SubClass of:	dpv:Authenticating
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.106 Parent

Class:	dpv:Parent
Description:	Information about an individual's parent(s).
is SubClass of:	dpv:FamilyStructure
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.107 Password

Class:	dpv:Password
Description:	An individual's password used in the process of authenticating the individual as a user accessing a system.

is SubClass of:	dpv:Authenticating
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.108 Personal Possession

Class:	dpv:PersonalPossession
Description:	Information about an individual's personal possessions.
is SubClass of:	dpv:Ownership
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.109 Personality

Class:	dpv:Personality
Description:	Information that relates to an individual's personality (e.g., categorization in terms of the Big Five personality traits)
is SubClass of:	dpv:Behavioral

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.110 Philosophical Belief

Class:	dpv:PhilosophicalBelief
Description:	Information about an individual's philosophical beliefs.
is SubClass of:	$\underline{dpv}: KnowledgeBelief} \cap \underline{dpv}: SpecialCategoryPersonalData}$
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.111 Physical Address

Class:	dpv:PhysicalAddress
Description:	Information about an individual's physical address.
is SubClass of:	dpv:Contact
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.112 Physical Characteristic

Class:	dpv:PhysicalCharacteristic
Description:	Information that describes an individual's physical characteristics
is SubClass of:	dpv:External
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Demographic

§ 4.1.113 Physical Health

Class:	dpv:PhysicalHealth
Description:	Information related to an individual's physical health.
is SubClass of:	dpv:Health
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.114 Physical Trait

Class:	dpv:PhysicalTrait
Description:	Information on defining traits or features about an individuals body.
is SubClass of:	dpv:Demographic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.115 Picture

Class:	dpv:Picture
Description:	A visual representation or image of an individual, e.g., profile photo.
is SubClass of:	dpv:Identifying
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.116 Piercing

Class:	dpv:Piercing
Description:	Information about an individual's piercings
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.117 Political Affiliation

Class:	dpv:PoliticalAffiliation
Description:	Information about an individual's political affiliation and history
is SubClass of:	<u>dpv:PublicLife</u> \cap <u>dpv:SpecialCategoryPersonalData</u>
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Political

§ 4.1.118 Preference

Class:	dpv:Preference
Description:	Information about an individual's preferences or interests
is SubClass of:	dpv:Internal
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Preference

§ 4.1.119 Prescription

Class:	dpv:Prescription
Description:	Information about prescriptions made for an individual.
is SubClass of:	dpv:MedicalHealth
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.120 Privacy Preference

Class:	dpv:PrivacyPreference
Description:	Information about an individual's privacy preferences
is SubClass of:	dpv:Preference
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.121 Proclivitie

Class:	dpv:Proclivitie
Description:	Information about an individual's proclivities in a sexual context
is SubClass of:	dpv:Sexual
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.122 Professional

Class:	dpv:Professional
Description:	Information about an individual's educational or professional career

is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.123 Professional Evaluation

Class:	dpv:ProfessionalEvaluation
Description:	Information about professional evaluations associated with an individual
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.124 Professional Interview

Class:	dpv:ProfessionalInterview
Description:	Information about professional interviews associated with an individual
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.125 Public Life

Class:	dpv:PublicLife
Description:	Information about an individual's public life
is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.126 Purchase

Class:	dpv:Purchase
Description:	Information about purchases such as items bought, e.g., grocery or clothing
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:Purchase

§ 4.1.127 Purchases And Spending Habit

Class:	dpv:PurchasesAndSpendingHabit
Description:	Information about analysis of purchases made and money spent expressed as a habit, e.g., monthly shopping trends
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.128 Race

Class:	dpv:Race
Description:	Information related to an individual's race.
is SubClass of:	dpv:Ethnicity ∩ dpv:SpecialCategoryPersonalData
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.129 Reference

Class:	dpv:Reference
Description:	Information about an individual's references in the professional context
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.130 Relationship

Class:	dpv:Relationship
Description:	Information that characterizes an individual's relationships with other individuals.
is SubClass of:	dpv:Family
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.131 Religion

Class:	dpv:Religion
Description:	Information about an individual's religion, religious inclinations, and religious history.
is SubClass of:	<u>dpv:PublicLife</u> ∩ <u>dpv:SpecialCategoryPersonalData</u>
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.132 Religious Belief

Class:	dpv:ReligiousBelief
Description:	Information about an individual's religious beliefs.
is SubClass of:	dpv:KnowledgeBelief ∩ dpv:SpecialCategoryPersonalData
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.133 Retina

Class:	dpv:Retina
Description:	Information related to an individual's retina used for biometric purposes.
is SubClass of:	dpv:Biometric
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.134 Room Number

Class:	dpv:RoomNumber
Description:	Room number of a location associated with an individual.
is SubClass of:	dpv:Location
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.135 Salary

Class:

Description:	Information about an individual's salary
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.136 Sale

Class:	dpv:Sale
Description:	Information about sales, e.g., selling of goods or services
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.137 School

Class:	dpv:School
Description:	Information about an individual's school such as name of school, conduct, or grades obtained.
is SubClass of:	dpv:Professional

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.138 Secret Text

Class:	dpv:SecretText
Description:	An individual's secret text used in the process of authenticating the individual as a user accessing a system, e.g., when recovering a lost password.
is SubClass of:	dpv:Authenticating
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.139 Sexual

Class:	dpv:Sexual
Description:	Information that describes an individual's sexual life
is SubClass of:	$\underline{dpv:External} \cap \underline{dpv:SpecialCategoryPersonalData}$
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.140 Sexual History

Class:	dpv:SexualHistory
Description:	Information about an individual's sexual history
is SubClass of:	dpv:Sexual
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.141 Sexual Preference

Class:	dpv:SexualPreference
Description:	Information about an individual's sexual preferences
is SubClass of:	dpv:Sexual
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.142 Sibling

Class:	dpv:Sibling
Description:	Information about an individual's sibling(s).
is SubClass of:	dpv:FamilyStructure
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.143 Skin Tone

Class:	dpv:SkinTone
Description:	Information about an individual's skin tone
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html

Contributor:

Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.144 Social

Class:	dpv:Social
Description:	Personal data about the social aspects such as for family, public life, or professional networks.
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.145 Social Media Communication

Class:	dpv:SocialMediaCommunication
Description:	Information relating to an individual's social media communication, including the communication itself and metadata.
is SubClass of:	dpv:Communication
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of-Personal- Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

Related Terms: svd:Social

§ 4.1.146 Social Network

Class:	dpv:SocialNetwork
Description:	Information about an individual's friends or connections expressed as a social network
is SubClass of:	dpv:Social
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.147 Social Status

Class:	dpv:SocialStatus
Description:	Information about an individual's social status
is SubClass of:	dpv:PublicLife
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.148 Special Category Personal Data

Class:	dpv:SpecialCategoryPersonalData
Description:	Special category or personal data as per GDPR Art. 9 (1)
is SubClass of:	dpv:PersonalDataCategory
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_1/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Notes:	trade union membership, which is explicitly included in the taxative listing in GDPR Art. 9 (1), is not covered yet.

§ 4.1.149 Tattoo

Class:	dpv:Tattoo
Description:	Information about an individual's tattoos
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.150 Tax

Class:	dpv:Tax
Description:	Information about financial tax, e.g., tax records or tax due
is SubClass of:	dpv:Transactional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.151 Telephone Number

Class:	dpv:TelephoneNumber
Description:	Information about an individual's telephone number.
is SubClass of:	dpv:Contact
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.152 Thought

Class:	dpv:Thought
Description:	Information about an individual's thoughts

is SubClass of:	dpv:KnowledgeBelief
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.153 Tracking

Class:	dpv:Tracking
Description:	Personal data that can be used to track an individual or used as an identifier, e.g., location or email
is SubClass of:	dpv:PersonalDataCategory
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.154 Transaction

Class:	dpv:Transaction
Description:	Information about financial transactions, e.g., bank transfers
is SubClass of:	dpv:Transactional

Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.155 Transactional

Class:	dpv:Transactional
Description:	Information about an individual's purchasing, spending or income
is SubClass of:	dpv:Financial
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.156 UID

Class:	dpv:UID
Description:	An unique identifier used to identify an individual.
is SubClass of:	dpv:Identifying
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra
Related Terms:	svd:UniqueId

§ 4.1.157 Username

Class:	dpv:Username
Description:	A username used to identify an individual.
is SubClass of:	dpv:Identifying
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.158 Voice Communication Recording

Class:	<pre>dpv:VoiceCommunicationRecording</pre>
Description:	Recording of an individual's recorded communication, (e.g., telephony, VoIP)
is SubClass of:	dpv:Communication
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor: Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekapu	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra, Axel Polleres
Notes:	ISSUE-23

§ 4.1.159 Voice Mail

Class:	dpv:VoiceMail
Description:	Information about an individual's voice mail messages.
is SubClass of:	dpv:Communication
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.160 Weight

Class:	dpv:Weight
Description:	Information about an individual's physical weight
is SubClass of:	dpv:PhysicalCharacteristic
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 4.1.161 Work History

Class:	dpv:WorkHistory
Description:	Information about an individual's work history in a professional context
is SubClass of:	dpv:Professional
Source:	https://enterprivacy.com/wp-content/uploads/2018/09/Categories-of- Personal-Information.pdf
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Elmar Kiesling; Harshvardhan J. Pandit, Fajar J. Ekaputra

§ 5. Purposes

DPVCG at present defines a hierarchically organized set of generic categories of data handling purposes. Regulations such as GDPR generally require a specific purpose to be declared in an understandable manner. We therefore suggest to declare the specific context as an instance of one or several dpv:Purpose categories and to always declare the specific purpose with a human readable description (e.g., by using rdfs:label and rdfs:comment). E.g.

EXAMPLE 1: Creating Purposes with human-readable descriptions

```
:NewPurpose rdfs:subClassOf dpv:DeliveryOfGoods, dpv:FraudPreventionAn
    rdfs:label "New Purpose" ;
    rdfs:comment "Intended delivery of goods with fraud prevention"
```

Purposes can be further restricted to specific contexts using the class <u>dpv:Context</u> and the property <u>dpv:hasContext</u>. DPVCG provides a way to restrict purposes to a specific business

sector using the class <u>dpv:Sector</u> and the property <u>dpv:hasSector</u>. Hierarchies for defining business sectors include [<u>NACE</u>] (EU), [<u>NAICS</u>] (US), [<u>ISIC</u>] (UN), and [<u>GICS</u>]. Multiple classifications can be used through mappings between sector codes such as [<u>NACE-NAICS</u>]. At the moment, we recommend to specify this sector in terms of the EU NACE codes, where the codes can be specified using the URI scheme <u>dpv-nace</u>: <u>NACE-CODE</u>.

NOTE

We provide an interpretation of the NACE revision 2 codes which uses rdfs:subClassOf to specify the hierarchy, available here.

EXAMPLE 2: Using NACE codes to restrict Purposes

For example, a purpose can be restricted to the domain of scientific research using its corresponding NACE code M72, which can be represented as:

:SomePurpose a dpv:Purpose ;
 rdfs:label "Some Purpose" ;
 dpv:hasSector dpv-nace:M72 .

We suggest selecting the most appropriate or applicable purpose over more abstract ones by selecting or extending the relevant classes in the purpose taxonomy. For example, the purpose Optimisation can be further clarified to be optimisation for the consumer, or the controller.

The DPV Purposes ontology is available as an individual module here.

§ 5.1 Classes

:AcademicResearch | :AccessControl | :Beneficiary | :CommercialInterest | :CommercialResearch | :Context | :CreateProductRecommendations | :CustomerCare | :DeliveryOfGoods | :FraudPreventionAndDetection | :IdentityVerification | :ImproveExistingProductsAndServices | :ImproveInternalCRMProcesses | :IncreaseServiceRobustness | :InternalResourceOptimisation | :NonCommercialResearch | :OptimisationForConsumer | :OptimisationForController | :OptimiseUserInterface | :PersonalisedBenefits | :ResearchAndDevelopment | :Sector | :Security | :SellDataToThirdParties | :SellInsightsFromData | :SellProductsToDataSubject | :SellTargettedAdvertisements | :ServiceOptimization | :ServicePersonalization | :ServiceProvision | :UserInterfacePersonalisation

§ 5.1.1 Academic Research

Class:	dpv:AcademicResearch
Description:	Research conducted in an academic context, e.g., within universities
is SubClass of:	dpv:ResearchAndDevelopment
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Education

§ 5.1.2 Access Control

Class:	dpv:AccessControl
Description:	To conduct or enforce access control
is SubClass of:	dpv:Security
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

	Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
	Related Terms:	svpu:Login

§ 5.1.3 Beneficiary

Class:	dpv:Beneficiary
Description:	self.DataSubject, self.DataController, society ? (under consideration)
in Range of:	dpv:hasBeneficiary
Status:	proposed
Date Created:	2019-05-23
Notes:	This needs further details, the group is asking feedback about whether Beneficiaries of a specific purposes hould be specified separately or not

§ 5.1.4 Commercial Interest

Class:	dpv:CommercialInterest
Description:	For purposes of commercial activities i.e. of profit or benefit to the Controller
is SubClass of:	dpv:Purpose
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved: 2019-04-05	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.5 Commercial Research

Class:	dpv:CommercialResearch
Description:	Research conducted in a commercial setting, e.g., in a company
is SubClass of:	dpv:ResearchAndDevelopment
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Develop

§ 5.1.6 Context

Class:	dpv:Context
Description:	Used to scope the purpose, e.g., restriction to a certain business sector
in Domain of:	dpv:hasBeneficiary, dpv:hasSector
in Range of:	dpv:hasContext
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

§ 5.1.7 Create Product Recommendations

dpv:CreateProductRecommendations

Description:	To create product recommendations, e.g., suggest similar products
is SubClass of:	dpv:ServicePersonalization
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Marketing

§ 5.1.8 Customer Care

Class:	dpv:CustomerCare
Description:	Processes related to providing assistance for customer satisfaction
is SubClass of:	dpv:ServiceProvision
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Feedback

§ 5.1.9 Delivery Of Goods

Class:	dpv:DeliveryOfGoods
Description:	To deliver goods and services
is SubClass of:	dpv:ServiceProvision
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Delivery

§ 5.1.10 Fraud Prevention And Detection

Class:	dpv:FraudPreventionAndDetection
Description:	To detect and prevent fraud
is SubClass of:	dpv:Security
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Government

§ 5.1.11 Identity Verification

Class:	dpv:IdentityVerification
Description:	To verify and authorise identity
is SubClass of:	dpv:Security
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.12 Improve Existing Products And Services

Class:	dpv:ImproveExistingProductsAndServices
Description:	To improve existing products and services
is SubClass of:	dpv:OptimisationForController
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10

Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.13 Improve Internal CRMProcesses

Class:	dpv:ImproveInternalCRMProcesses
Description:	To improve customer-relationship management (CRM) processes
is SubClass of:	dpv:OptimisationForController
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.14 Increase Service Robustness

Class:	dpv:IncreaseServiceRobustness
Description:	To improve the robustness and resilience of services
is SubClass of:	dpv:OptimisationForController
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29

Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.15 Internal Resource Optimisation

Class:	dpv:InternalResourceOptimisation
Description:	Optimisation of internal resources used by the organisation, e.g., resource usage
is SubClass of:	dpv:OptimisationForController
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.16 Non Commercial Research

Class:	dpv:NonCommercialResearch
Description:	Research conducted in a non-commercial setting, e.g., for a non-profit- organisation (NGO)
is SubClass of:	dpv:ResearchAndDevelopment

Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.17 Optimisation For Consumer

Class:	dpv:OptimisationForConsumer
Description:	Optimisation of activities and services for the consumer or user
is SubClass of:	dpv:ServiceOptimization
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal
Related Terms:	svpu:Custom

§ 5.1.18 Optimisation For Controller

Class:	dpv:OptimisationForController
Description:	Optimisation of activities and services for the Controller
is SubClass of:	dpv:ServiceOptimization
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.19 Optimise User Interface

Class:	dpv:OptimiseUserInterface
Description:	Optimisation of interfaces presented to the user
is SubClass of:	dpv:OptimisationForConsumer
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.20 Personalised Benefits

Class:	dpv:PersonalisedBenefits
Description:	Personalisation of benefits received by the user
is SubClass of:	dpv:ServicePersonalization
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.21 Research And Development

Class:	dpv:ResearchAndDevelopment
Description:	Performing research and developing new methods, products, or services
is SubClass of:	dpv:Purpose
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.22 Sector

Class:	dpv:Sector
Description:	Used to indicate the sector of a purpose, e.g., Agriculture, Advertising (specified e.g., in the form of NACE codes)
in Range of:	dpv:hasSector
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

§ 5.1.23 Security

Class:	dpv:Security
Description:	Security of data
is SubClass of:	dpv:Purpose
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.24 Sell Data To Third Parties

Class:	<u>dpv:SellDataToThirdParties</u>
--------	-----------------------------------

Description:	To sell data or information to third parties
is SubClass of:	dpv:CommercialInterest
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.1.25 Sell Insights From Data

Class:	dpv:SellInsightsFromData	
Description:	To sell or commercially provide insights obtained from analysis of data	
is SubClass of:	dpv:CommercialInterest	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.26 Sell Products To Data Subject

Class:	dpv:SellProductsToDataSubject	
Description:	To sell products or services to the data subject or user	
is SubClass of:	dpv:CommercialInterest	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.27 Sell Targetted Advertisements

Class:	dpv:SellTargettedAdvertisements	
Description:	To sell or provide targetted advertisements about the user to Third Parties	
is SubClass of:	dpv:CommercialInterest	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.28 Service Optimization

Class:	<pre>dpv:ServiceOptimization</pre>	
Description:	Description of service or activity	
is SubClass of:	dpv:Purpose	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.29 Service Personalization

Class:	dpv:ServicePersonalization	
Description:	Personalization of service or activity for the user	
is SubClass of:	dpv:Purpose	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.30 Service Provision

Class:	dpv:ServiceProvision	
Description:	Provision of service or activity	
is SubClass of:	dpv:Purpose	
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29	
Status:	accepted	
Date Created:	2018-12-10	
Date Approved:	2019-04-05	
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html	
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal	

§ 5.1.31 User Interface Personalisation

Class:	dpv:UserInterfacePersonalisation
Description:	Personalisation of interfaces presented to the user
is SubClass of:	dpv:ServicePersonalization
Source:	https://www.w3.org/community/dpvcg /wiki/Purposes_for_handling_Personal_Data#High-level_categories28to-be- discussed.29
Status:	accepted
Date Created:	2018-12-10
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Javier Fernandez, Axel Polleres, Elmar Kiesling, Fajar Ekaputra, Simon Steyskal

§ 5.2 Properties

:hasBeneficiaryl:hasContextl:hasSector

§ 5.2.1 has Beneficiary

Property:	dpv:hasBeneficiary
Description:	Cui bono? Who is the ultimate beneficiary of this purpose, here a stakeholder can be declared, e.g., the DataSubjects themselves or the Data Controller. (under consideration)
Domain:	dpv:Context
Range:	dpv:Beneficiary
Status:	proposed
Date Created:	2019-05-23
Notes:	If we want ot be able to say something about the beneficiary of a purpose, we probably also need to say something about how the beneficiary benefits? - whether it is good for the controller or data subject

§ 5.2.2 has Context

Property:	dpv:hasContext
Description:	Restricts a purpose to the specified context(s)
Domain:	dpv:Purpose
Range:	dpv:Context
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg- minutes.html

§ 5.2.3 has Sector

Property:	dpv:hasSector
Description:	Indicates the purpose is associated with activities in the indicated (Economic) Sector(s)
Domain:	dpv:Context
Range:	dpv:Sector
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

§ 6. Processing Categories

DPV provides a hierarchy of classes to specify the operations associated with the processing of personal data. Declaring the processing or processing categories associated with personal data is required by regulations such as the GDPR. Common processing operations such as collect, share, and use have certain constraints or obligations in GDPR, which makes it necessary to accurately represent them for personal data handling. While the term 'use' is liberally used to refer to a broad range of processing categories in privacy notices, we suggest to select and use appropriate terms to accurately reflect the nature of processing where applicable.

We define top-level classes to represent the following broad categories of processing - Disclose, Copy, Obtain, Remove, Store, Transfer, and Transform. Each of these are then further expanded using subclasses in the taxonomy, which includes terms defined in the definition of processing in GDPR (Article 4-2).

The DPV taxonomy provides properties with a boolean range to indicate the nature of processing regarding Systematic Monitoring, Evaluation or Scoring, Automated Decision Making, Matching or Combining, Large Scale processing, and Innovative use of new solutions - which are relevant towards interpretation of legal requirements such as GDPR compliance.

The DPV Processing ontology is available as an individual module here.

§ 6.1 Classes

:Acquire | :Adapt | :Align | :Alter | :Analyse | :Anonymise | :Collect | :Combine | :Consult | :Copy | :Derive | :Destruct | :Disclose | :DiscloseByTransmission | :Disseminate|:Erase|:MakeAvailable|:Move|:Obtain|:Organise|:Profiling| :PseudoAnonymise|:Record|:Remove|:Restrict|:Retrieve|:Share|:Store| :Structure|:Transfer|:Transform|:Transmit|:Use

§ 6.1.1 Acquire

Class:	dpv:Acquire
Description:	to come into possession or control of the data
is SubClass of:	dpv:Obtain
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

§ 6.1.2 Adapt

Class:	dpv:Adapt
Description:	to modify the data, often rewritten into a new form for a new use
is SubClass of:	dpv:Transform
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.3 Align

Class:	dpv:Align
Description:	to adjust the data to be in relation to another data

is SubClass of:	dpv:Transform
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.4 Alter

Class:	dpv:Alter
Description:	to change the data withouth changing it into something else
is SubClass of:	dpv:Transform
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.5 Analyse

Class:	dpv:Analyse
Description:	to study or examine the data in detail
is SubClass of:	dpv:Use
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

Related Terms:

svpr:Analyse

§ 6.1.6 Anonymise

Class:	dpv:Anonymise
Description:	to irreversibly alter personal data in such a way that a unique data subject can no longer be identified directly or indirectly or in combination with other data
is SubClass of:	dpv:Transform
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Related Terms:	svpr:Anonymize

§ 6.1.7 Collect

Class:	dpv:Collect
Description:	to gather data from someone
is SubClass of:	dpv:Obtain
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj, https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Related Terms:	svpr:Collect

https://www.w3.org/ns/dpv

§ 6.1.8 Combine

Class:	dpv:Combine
Description:	to join or merge data
is SubClass of:	dpv:Transform
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj, https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Related Terms:	svpr:Aggregate

§ 6.1.9 Consult

Class:	dpv:Consult_
Description:	to consult or query data
is SubClass of:	dpv:Use
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj, https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Related Terms:	svpr:Query

§ 6.1.10 Copy

Class:	dpv:Copy
--------	----------

Description:	to produce an exact reprodution of the data
is SubClass of:	dpv:Processing
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html
Related Terms:	svpr:Copy

§ 6.1.11 Derive

Class:	dpv:Derive
Description:	to create new derivative data from the original data
is SubClass of:	dpv:Transform
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html
Related Terms:	svpr:Derive

§ 6.1.12 Destruct

Class:	dpv:Destruct
Description:	to process data in a way it no longer exists or cannot be repaired
is SubClass of:	dpv:Remove
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.13 Disclose

Class:	dpv:Disclose
Description:	to make data known
is SubClass of:	dpv:Processing
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

§ 6.1.14 Disclose By Transmission

Class:	dpv:DiscloseByTransmission
Description:	to disclose data by means of transmission
is SubClass of:	dpv:Disclose
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.15 Disseminate

Class:	dpv:Disseminate
Description:	to spread data throughout
is SubClass of:	dpv:Disclose
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.16 Erase

Class:	dpv:Erase
Description:	to delete data
is SubClass of:	dpv:Remove
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.17 Make Available

Class:	dpv:MakeAvailable
Description:	to transform or publish data to be used
is SubClass of:	dpv:Disclose
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.18 Move

Class:	dpv:Move
Description:	to move data from one location to another including deleting the original copy
is SubClass of:	dpv:Transfer
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Related Terms:	svpr:Move

§ 6.1.19 Obtain

Class:	dpv:Obtain
Description:	to solicit or gather data from someone
is SubClass of:	dpv:Processing
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

§ 6.1.20 Organise

Class:	dpv:Organise
Description:	to organize data for arranging or classifying
is SubClass of:	dpv:Organise
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.21 Profiling

Class:	dpv:Profiling
Description:	to create a profile that describes or represents a person
is SubClass of:	dpv:Use
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.22 Pseudo Anonymise

Class:	dpv:PseudoAnonymise
Description:	to replace personal identifiable information by artificial identifiers
is SubClass of:	dpv:Transform
Source:	DPVCG
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.23 Record

Class:	dpv:Record
Description:	to make a record (especially media)
is SubClass of:	dpv:Obtain
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.24 Remove

Class:	dpv:Remove
Description:	to destruct or erase data
is SubClass of:	dpv:Processing
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

§ 6.1.25 Restrict

Class:	dpv:Restrict
Description:	to apply a restriction on the processsing of specific records
is SubClass of:	dpv:Transform
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.26 Retrieve

Class:	dpv:Retrieve
Description:	to retrieve data, often in an automated manner
is SubClass of:	dpv:Use
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.27 Share

Class:	dpv:Share
Description:	to give data (or a portion of it) to others
is SubClass of:	dpv:Disclose
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07

Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-
	minutes.html

§ 6.1.28 Store

Class:	dpv:Store
Description:	to keep data for future use
is SubClass of:	dpv:Processing
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.29 Structure

Class:	dpv:Structure
Description:	to arrange data according to a structure
is SubClass of:	dpv:Organise
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.1.30 Transfer

Class:	dpv:Transfer
Description:	to move data from one place to another

is SubClass of:	dpv:Processing
Source:	https://www.specialprivacy.eu/vocabs/processing
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html
Related Terms:	svpr:Transfer

§ 6.1.31 Transform

Class:	dpv:Transform
Description:	to change the form or nature of data
is SubClass of:	dpv:Processing
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg- minutes.html

§ 6.1.32 Transmit

Class:	dpv:Transmit
Description:	to send out data
is SubClass of:	dpv:Disclose
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07

Approval Resolution: https://www.minutes.htm	w.w3.org/2019/05/07-dpvcg- ml
--	----------------------------------

§ 6.1.33 Use

Class:	dpv:Use
Description:	to use data
is SubClass of:	dpv:Processing
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4 /par_2/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2 Properties

```
:innovativeUseOfNewSolutions|:isAutomatedDecisionMaking|
:isEvaluationScoring|:isLargeScale|:isMatchingCombining|
:isSystematicMonitoring
```

§ 6.2.1 innovative Use Of New Solutions

Property:	dpv:innovativeUseOfNewSolutions
Description:	Indicates the processing comprises of innovative uses of new or radical solutions
Comments:	e.g., combining fingerprint & face scan for access control. What is concidered new/innovative is of course subject to change over time.
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted

Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2.2 is Automated Decision Making

Property:	dpv:isAutomatedDecisionMaking
Description:	Indicates whether the processing comprises of or is part of or results in automated decision making
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2.3 is Evaluation Scoring

Property:	dpv:isEvaluationScoring
Description:	Indicates whether the processing ir part of or results in evaluation or scoring of an individual or their personal data
Comments:	including profiling and predicting,
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2.4 is Large Scale

Property:	dpv:isLargeScale
Description:	Indicates the processing is carried out at large scale in terms of size of data or individuals associated
Comments:	Involves large amounts of personal data or data subjects. The WP29 recommends that the following factors, in particular, be considered when determining whether the processing is carried out on a large scale (WP29 Guidelines on Data Protection Officer 16/EN WP 243): a. the number of data subjects concerned, either as a specific number or as a proportion of the relevant population; b. the volume of data and/or the range of different data items being processed; c. the duration, or permanence, of the data processing activity; d. the geographical extent of the processing activity.
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2.5 is Matching Combining

Property:	<u>dpv:isMatchingCombining</u>
Description:	Indicates whether the processing comprises of matching or combining existing data

Comments:	originating from two or more data processing operations performed for different purposes and/or by different data controllers in a way that would exceed the reasonable expectations of the data subject (WP29 Opinion on Purpose limitation 13/EN WP 203, p.24). For instance Integration/Enrichment with other data (not necessarily personal only)
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 6.2.6 is Systematic Monitoring

Property:	dpv:isSystematicMonitoring
Description:	Indicates whether the processing comprises of systematic monitoring of data subjects or their personal data
Domain:	dpv:Processing
Range:	xsd:boolean
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html

§ 7. Technical and Organisational Measures

Regulations require certain technical and organisational measures to be in place depending on the

context of processing involving personal data. For example, GDPR (Article 32) states implementing appropriate measures by taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of processing, as well as risks, rights and freedoms. Examples of measures stated in the article states include:

- a. the pseudonymisation and encryption of personal data
- b. the ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services
- c. the ability to restore the availability and access to personal data in a timely manner in the event of a physical or technical incident
- d. a process for regularly testing, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of the processing

To address these requirements, the DPVCG defines a hierarchical vocabulary for declaring technical and organisational measures. For any of the declared measures defined below, we provide a generic ObjectProperty (dpv:measureImplementedBy), and for the values of this attribute, we either allow a blank node with a single rdfs:comment to describe the measure, or a URI to a standard or best practice followed, i.e. a well-known identifier for that standard or a URL where the respective document describes the standard. The class StorageRestriction represents the measures used for storage of data with two specific properties provided for storage location and duration restrictions.

In the future, we plan to provide a collection of URIs for identifying recommended standards and best practices. Future versions of this document may extend the vocabulary by an approved taxonomy of identifiers for such standards and best practices.

The DPV Technical and Organisational Measures ontology is available as an individual module

here.

§ 7.1 Classes

:AccessControlMethod | :Anonymization | :AuthenticationProtocols | :AuthorisationProcedure | :Certification | :CertificationSeal | :CodeOfConduct | :Contract | :DeIdentification | :DesignStandard | :EncryptionInRest | :EncryptionInTransfer | :GuidelinesPrinciple | :LegalAgreement | :NDA | :OrganisationalMeasure | :PrivacyByDefault | :PrivacyByDesign | :PseudoAnonymization | :PseudonymisationEncryption | :RegularityOfRecertification | :RiskManagementProcedure | :Seal | :StaffTraining | :StorageDeletion | :StorageDuration | :StorageLocation | :StorageRestoration | :StorageRestriction | :TechnicalMeasure

§ 7.1.1 Access Control Method

Class:	dpv:AccessControlMethod
Description:	methods which restrict access to a place or resource
is SubClass of:	dpv:TechnicalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.2 Anonymization

Class:	dpv:Anonymization
Description:	process by which personal data is irreversibly altered in such a way that a data subject can no longer be identified directly or indirectly, either by the data controller alone or in collaboration with any other party
is SubClass of:	dpv:PseudoAnonymization
Source:	ISO 25237
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.3 Authentication Protocols

Class:	dpv:AuthenticationProtocols
--------	-----------------------------

Description:	protocols involving validation of identity i.e. authentication of a person or information
is SubClass of:	dpv:TechnicalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.4 Authorisation Procedure

Class:	dpv:AuthorisationProcedure
Description:	Specifies procedures for determining permission or authority
is SubClass of:	dpv:OrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar
Notes:	non-technical authorisation procedures: How is it described on an organisational level, who gets access to the data

§ 7.1.5 Certification

Class:	dpv:Certification
Description:	certification mechanisms, seals, and marks for the purpose of demonstrating compliance

is SubClass of:	dpv:CertificationSeal
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.6 Certification Seal

Class:	dpv:CertificationSeal
Description:	Category of certifications, seals, and marks indicating compliance to regulations or practices
is SubClass of:	dpv:OrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.7 Code Of Conduct

Class:	dpv:CodeOfConduct
Description:	A set of rules or procedures outlining the norms and practices for conducting activities
is SubClass of:	dpv:GuidelinesPrinciple
Source:	DPVCG

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.8 Contract

Class:	dpv:Contract
Description:	Contractual terms governing data handling within the data controller
is SubClass of:	dpv:LegalAgreement
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.9 De Identification

Class:	dpv:DeIdentification
Description:	Process by identifiable personal data (PII) is converted to un-identifiable personal data
is SubClass of:	dpv:PseudoAnonymization
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05

Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.10 Design Standard

Class:	dpv:DesignStandard
Description:	A set of rules or guidelines outlining criterias for design
is SubClass of:	dpv:GuidelinesPrinciple
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.11 Encryption In Rest

Class:	dpv:EncryptionInRest
Description:	Encryption of data when being stored (persistent encryption)
is SubClass of:	dpv:PseudonymisationEncryption
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.12 Encryption In Transfer

Class:	dpv:EncryptionInTransfer
Description:	Encryption of data in transit, e.g., when being transferred from one location to another, including sharing
is SubClass of:	dpv:PseudonymisationEncryption
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.13 Guidelines Principle

Class:	dpv:GuidelinesPrinciple
Description:	Guidelines or Principles regarding processing and operational measures
is SubClass of:	dpv:OrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.14 Legal Agreement

Class:	dpv:LegalAgreement
Description:	A legally binding agreement
is SubClass of:	dpv:OrganisationalMeasure
Source:	DPVCG

Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.15 NDA

Class:	dpv:NDA
Description:	Non-disclosure Agreements e.g., preserving confidentiality of information
is SubClass of:	dpv:LegalAgreement
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.16 Organisational Measure

Class:	dpv:OrganisationalMeasure
Description:	Organisational measures required/followed when processing data of the declared category
is SubClass of:	dpv:TechnicalOrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor:

Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.17 Privacy By Default

Class:	dpv:PrivacyByDefault
Description:	Practices regarding selecting appropriate data protection and privacy measures as the 'default' in an activity or service
is SubClass of:	dpv:GuidelinesPrinciple
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.18 Privacy By Design

Class:	dpv:PrivacyByDesign
Description:	Practices regarding incorporating data protection and privacy in the design of information and services
is SubClass of:	dpv:RiskManagementProcedure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

7.1.19 Pseudo Anonymization

Class:	dpv:PseudoAnonymization
Description:	PseudoAnonmyization or 'pseudonymisation' means the processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person;
is SubClass of:	dpv:PseudonymisationEncryption
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_5/pnt_g/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.20 Pseudonymisation Encryption

Class:	dpv:PseudonymisationEncryption
Description:	Category of technical measures consisting of pseudoanonymization and encryption
is SubClass of:	dpv:TechnicalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.21 Regularity Of Recertification

Class:	<pre>dpv:RegularityOfRecertification</pre>
Description:	Specifies policy regarding repetition or renewal of existing certification(s)
is SubClass of:	dpv:RiskManagementProcedure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.22 Risk Management Procedure

Class:	dpv:RiskManagementProcedure
Description:	Risk management refers to a coordinated set of activities and methods that is used to direct an organization and to control the many risks that can affect its ability to achieve objectives. The term risk management also refers to the programme that is used to manage risk. This programme includes risk management principles, a risk management framework, and a risk management process.
Comments:	Data Protection Impact Assessments as per GDPR art 35, other Privacy Impact Assessments, threat severity assessment https://www.cnil.fr/en/privacy-impact- assessment-pia
is SubClass of:	dpv:OrganisationalMeasure
Source:	ISO 31000
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor: Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.23 Seal

Class:	dpv:Seal
Description:	a seal or a mark indicating proof of certification to some certification or standard
is SubClass of:	dpv:CertificationSeal
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.24 Staff Training

Class:	dpv:StaffTraining
Description:	Practices and policies regarding training of staff members
is SubClass of:	dpv:RiskManagementProcedure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.25 Storage Deletion

Class:	dpv:StorageDeletion
Description:	Defines how secure deletion is guaranteed
is SubClass of:	dpv:StorageRestriction
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.26 Storage Duration

Class:	dpv:StorageDuration
Description:	A duration or temporal entity denoting limitation on storage of personal data
is SubClass of:	dpv:StorageRestriction
in Range of:	dpv:duration
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.27 Storage Location

Class:	dpv:StorageLocation
Description:	Defines a location or goespatial scope, where the data is (physically) stored

is SubClass of:	dpv:StorageRestriction
in Range of:	dpv:location
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.28 Storage Restoration

Class:	dpv:StorageRestoration
Description:	Regularity and temporal span of data restoration/backup mechanisms that guarantee that data is preserved
is SubClass of:	dpv:StorageRestriction
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.29 Storage Restriction

Class:	dpv:StorageRestriction
Description:	Restrictions required or followed regarding storage of data
is SubClass of:	dpv:TechnicalMeasure
in Domain of:	dpv:duration, dpv:location

in Range of:	dpv:storage
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.1.30 Technical Measure

Class:	dpv:TechnicalMeasure
Description:	Technical measures required/followed when processing data of the declared category
is SubClass of:	dpv:TechnicalOrganisationalMeasure
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.2 Properties

:duration|:location|:measureImplementedBy|:storage

§ 7.2.1 duration

Property:	dpv:duration
Description:	Specifies duration for storage of personal data
Domain:	dpv:StorageRestriction

Range:	dpv:StorageDuration
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.2.2 location

Property:	dpv:location
Description:	Specifies location for storage of personal data
Domain:	dpv:StorageRestriction
Range:	dpv:StorageLocation
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 7.2.3 measure Implemented By

Property:	dpv:measureImplementedBy
Description:	a generic ObjectProperty to describe how the measure is implemented. For the values of this property we either allow a blank node with a single rdfs:comment to describe the measure, or a URI to a standard or best practice followed, i.e. a well-known identifier for that standard or a URL where the respective document describes the standard.
Domain:	dpv:TechnicalOrganisationalMeasure

Range:	rdfs:Resource
Source:	DPVCG
Status:	accepted
Date Created:	2019-04-23
Date Approved:	2019-05-07
Approval Resolution:	https://www.w3.org/2019/05/07-dpvcg-minutes.html
Contributor:	Axel Polleres

§ 7.2.4 storage

Property:	dpv:storage
Description:	Specifies restriction on the storage of personal data
Domain:	dpv:TechnicalOrganisationalMeasure
Range:	dpv:StorageRestriction
Source:	DPVCG, SPECIAL Usage Policy Language
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Axel Polleres, Rob Brennan, Harshvardhan J. Pandit, Mark Lizar

§ 8. Consent

Consent is one of the legal bases for the processing of personal data which has several requirements and obligations that determine its validity and use as a legal basis. DPVCG provides the necessary terms and relationships to describe consent and its attributes from a compliance perspective. While the focus of the taxonomy is on the use of consent as a legal basis within the GDPR, the vocabulary can be adapted or extended to define other forms of consent.

The DPVCG consent vocabulary uses the set of properties from the base vocabulary to associate instances of dpv:Consent with Personal Data Categories, Purposes, Processing, Data Controllers, Recipients, Technical and Organisational Measures, and Data Subject. Additionally, the vocabulary also specifies properties for provision (how consent was given) and withdrawal (how consent was withdrawn) to define the provenance of consent. The expiry of consent can be specified using the property dpv:expiry, with sub-properties provided to define expiry as a temporal entity using dpv:expiryTime or as a condition/event using dpv:expiryCondition.

Certain requirements for valid consent require some information to be presented before the consent is obtained in order for it to be considered an 'informed consent'. This information and the notice it was provided in can be specified using the property dpv:consentNotice. Additionally, the property dpv:isExplicit can be used to specify if the consent is to be interpreted as 'explicit consent' using a boolean value (true/false).

To specify consent provided by delegation, such as in the case of a parent or guardian providing consent for a child, the properties dpv:provisionByJustification and dpv:withdrawalByJustification can be used to capture the nature of such 'delegation', with the fields dpv:provisionBy and dpv:withdrawalBy capturing the legal entity who provided the consent. By default, the consent is assumed to have been provided by the associated Data Subject.

The DPV Consent ontology is available as an individual module here.

NOTE

As the Legal Bases are dependent on legal jurisdictions, and consent is one of the legal basis under GDPR, we provide the GDPR legal bases (based on Article 6 and Article 9) under a separate aligned vocabulary here.

§ 8.1 Classes

:Consent |:LegalEntity

§ 8.1.1 Consent

Class:	dpv:Consent
Description:	Consent as defined by Article 4(11) of the GDPR
in Domain of:	<u>dpv:consentNotice</u> , <u>dpv:expiry</u> , <u>dpv:expiryCondition</u> , <u>dpv:expiryTime</u> , <u>dpv:isExplicit</u> , <u>dpv:provisionBy</u> , <u>dpv:provisionByJustification</u> , <u>dpv:provisionMethod</u> , <u>dpv:provisionTime</u> , <u>dpv:withdrawalBy</u> ,

	$\underline{dpv:} with drawal By Justification, \underline{dpv:} with drawal Method, \underline{dpv:} with drawal Time$
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_11/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.1.2 Legal Entity

Class:	dpv:LegalEntity
Description:	A Person or Organisation, including Data Subjects, that constitute as a legal entity.
is Parent Class of:	dpv:DataSubject
in Range of:	dpv:provisionBy, dpv:withdrawalBy
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger
Related Terms:	rdfs:subClassOf prov:Agent

§ 8.2 Properties

:consentNotice|:expiry|:expiryCondition|:expiryTime|:isExplicit| :provisionBy|:provisionByJustification|:provisionMethod|:provisionTime| :withdrawalBy|:withdrawalByJustification|:withdrawalMethod| :withdrawalTime

§ 8.2.1 consent Notice

Property:	dpv:consentNotice
Description:	Links consent to the notice displayed for requesting consent
Comments:	The actual notice that the Data Subject received to consent to, either a text or link to a document, which should be usable to decide whether the form or consent was compliant to legislation, e.g., documenting how the user has been informed about rights and implications (such as, right to data portability,right to rectify, right to erasure, right to restrict processing, right to object, rights regarding automated decision making or profiling, processors, third parties, sub-processors, outside-EEA transfers, automated decision-making, or other necessary details of the privacy-policy). Can be TextOrDocumentOrURI.
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.2 expiry

Property:	dpv:expiry
Description:	Generic property specifying when or under which condition(s) the consent will expire
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html

Contributor:

§ 8.2.3 expiry Condition

Property:	dpv:expiryCondition
Description:	Specifies the condition or event that determines the expiry of consent
Comments:	Can be TextOrDocumentOrURI
is Sub-Property of:	dpv:expiry
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.4 expiry Time

Property:	dpv:expiryTime
Description:	Specifies the expiry time or duration for consent
is Sub-Property of:	dpv:expiry
Domain:	dpv:Consent
Range:	time:TemporalEntity
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg- minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.5 is Explicit

Property:	dpv:isExplicit
Description:	Indicates consent is explicit as explained in GDPR Article 9.2a and Article 22.2c
Domain:	dpv:Consent
Range:	xsd:boolean
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.6 provision By

Property:	dpv:provisionBy
Description:	Specifies the entity that provisioned or provided consent
Comments:	Normally this would be the dataSubject, but in some exceptional cases, the consent might be given on behalf by someone else, e.g., parents of minors.
Domain:	dpv:Consent
Range:	dpv:LegalEntity
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.7 provision By Justification

Property:	<pre>dpv:provisionByJustification</pre>	
-----------	---	--

Description:	Specifies the justification for entity providing consent
Comments:	This field can be used to provide a justification why the provision was provided by another DataSubject or legal entity, e.g., declaring the relationship (parent, guardian), in combination with the field provisionBy
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.8 provision Method

Property:	dpv:provisionMethod
Description:	Specifies the method by which consent was provisioned or provided
Comments:	Can be used to record information of how consent was provided e.g., by a click to a form, in writing, etc., by logging into a system and confirm per email, or with some additional authentication, etc.
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.9 provision Time

Property:	dpv:provisionTime
-----------	-------------------

Description:	Specifies the instant in time when consent was given
Domain:	dpv:Consent
Range:	time:Instant
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg- minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.10 withdrawal By

Property:	dpv:withdrawalBy
Description:	Specifies the entity that withdrew consent
Comments:	Normally this would be the dataSubject, but in some exceptional cases, the consent might be withdrawn on behalf by someone else, e.g., parents of minors.
Domain:	dpv:Consent
Range:	dpv:LegalEntity
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.11 withdrawal By Justification

Property:	dpv:withdrawalByJustification
Description:	Specifies the justification for entity withdrawing consent

Comments:	This field can be used to provide a justification why the withdrawal was done by another DataSubject or legal entity, e.g., declaring the relationship (parent, guardian), in combination with the field withdrawalBy
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.12 withdrawal Method

Property:	dpv:withdrawalMethod
Description:	Specifies the method by which consent can be/has been withdrawn
Comments:	Can be used to record information of how to withdraw consent, e.g., by a click to a form, in writing, etc., by logging into a system and confirm per email, or with some additional authentication, etc.
Domain:	dpv:Consent
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 8.2.13 withdrawal Time

Property:	<pre>dpv:withdrawalTime</pre>
Description:	Specifies the instant in time when consent was withdrawn

Domain:	dpv:Consent
Range:	time:Instant
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit, Mark Lizar, Bud Bruegger

§ 9. Recipients, Data Controllers, and Data Subjects

Defining recipients is important in the context of data privacy as it allows tracking the entities personal data is shared/transferred with. Similarly, a categorisation of Data Controllers and Data Subjects has bearing on the privacy of personal data handling, especially when considering situations such as where Data Subjects are children. The vocabulary currently provides a few top-level classes to describe such recipients and Data Subjects, with an invitation to suggest/provide more terms for future releases.

The DPV Recipients, Data Controllers, and Data Subjects ontology is available as an individual module here.

§ 9.1 Classes

:ChildI:DataProcessorI:ThirdParty

§ 9.1.1 Child

Class:	dpv:Child
Description:	A 'child' is a natural legal person who is below a certain legal age depending on the legal jurisdiction.
Comments:	A 'child' is distinct from a 'minor'. For example, the legal age for a 'minor' in most countries is 18, whereas a 'child' can be a minor below the age of 14.
is SubClass of:	dpv:DataSubject
Status:	proposed

Date Created:	2019-06-06
Contributor:	Harshvardhan J. Pandit

§ 9.1.2 Data Processor

Class:	dpv:DataProcessor
Description:	'processor' means a natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller;
is SubClass of:	dpv:Recipient
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_8/pnt_g/oj
Status:	approved
Date Created:	2019-06-04
Date Approved:	2019-06-04
Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit

§ 9.1.3 Third Party

Class:	<u>dpv:ThirdParty</u>
Description:	'third party' means a natural or legal person, public authority, agency or body other than the data subject, controller, processor and persons who, under the direct authority of the controller or processor, are authorised to process personal data;
is SubClass of:	dpv:Recipient
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_4/par_10/pnt_g/oj
Status:	approved
Date Created:	2019-06-04
Date Approved:	2019-06-04

Approval Resolution:	https://www.w3.org/2019/06/04-dpvcg-minutes.html
Contributor:	Harshvardhan J. Pandit

§ A. Issues

§ General

- 1. Do we need to formulate a notion of compliance in scope of the cg?
- 2. Do we want to revisit a definition of "gdpr rights" in our definitions and taxonomies?
- 3. Should our taxonomy include a distinction/modeling of data subjects to whom gdpr applies (eu citizens and/or locatedin eu)
- 4. We may want to add a non-normative comment in the spec that/how the taxonomy can be used as skos.
- 5. Do we need further temporal annotations for the personal data handling class?
- 6. Do we need a generic mechanism to describe conditions, constraints and restrcitions to a specific processing or data category or can we re-use odrl's mechanism?
- 7. How to express sensitivity of data?
- 8. Ask for specific feedback on (un)ambiguity of the term descriptions
- 9. Describe use-cases and examples showing how the vocabulary should be or can be used

§ Personal Data Categories

- 1. Personal data cateories collected might be collected in an approximate manner (e.g., age vs. age range), should we provide a mechanism in the vocabulary to distinguish this?
- 2. Should we add more subclasses to communication recording (e.g., distinguishing chats, personalmessaging, videocommunication, telephony, etc.) and which ones?
- 3. Should we add more specific subclasses like countryofcitizenship, countryofresidence, countryofcurrentlocation to country and which ones?

§ Purposes

1. Are there mappings to gics from other coding systems naics/nace/isic ...

§ Consent

1. Do we need to further structure consent notice?

§ Recipients, Data Controllers, Data Subjects

- 1. Where are categories of data controllers used, where are they useful? (cf. recital 98, 99, 100)
- 2. We ask for particular feedback on whether and how to extend the list/taxonomy of controllers and recipients in the current vocabulary.
- 3. Should we explicitly note that the the controller is always a recipient of the data, if not, do we need to make this explicit inth vocabulary, by declaring it?

§ B. References

§ B.1 Informative references

[GICS]

Global Industry Classification Standard (GICS). URL: https://www.msci.com/gics

[ISIC]

International Standard Industrial Classification of All Economic Activities (ISIC). URL: https://unstats.un.org/unsd/classifications

[NACE]

Statistical Classification of Economic Activities in the European Community (NACE). URL: https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL& StrNom=NACE_REV2

[NACE-NAICS]

NACE to NAICS mapping. URL: https://ec.europa.eu/eurostat/ramon/nomenclatures /index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2

[NAICS]

North American Industry Classification System (NAICS). URL: https://www.census.gov /eos/www/naics/

<u>1</u>

DPVCG GDPR Legal Basis Vocabulary



Draft Community Group Report 26 July 2019

Latest editor's draft:

https://w3.org/ns/dpv-gdpr

Editors:

Harshvardhan J. Pandit (Trinity College Dublin) Axel Polleres (Vienna University of Economics and Business)

Authors:

Bert Bos (W3C/ERCIM) Rob Brennan (Dublin City University) Bud Bruegger (Unabhängige Landeszentrum für Datenschutz Schleswig-Holstein) Fajar J. Ekaputra (Vienna University of Technology) Javier D. Fernández (Vienna University of Economics and Business) Ramisa Gachpaz Hamed (Trinity College Dublin) Elmar Kiesling (Vienna University of Technology) Mark Lizar (OpenConsent/Kantara Initiative) Eva Schlehan (Unabhängige Landeszentrum für Datenschutz Schleswig-Holstein) Simon Steyskal (Siemens) Rigo Wenning (W3C/ERCIM)

Copyright © 2019 the Contributors to the DPVCG GDPR Legal Basis Vocabulary Specification, published by the Data Privacy Vocabularies and Controls Community Group under the W3C Community Contributor License Agreement (CLA). A human-readable summary is available.

Abstract

The Data Privacy Vocabulary provides terms (classes and properties) to annotate and categorize instances of legally compliant personal data handling according to the EU General Data Protection Regulation. One category of terms are the legal bases. This vocabulary provides the legal bases defined by the GDPR.

The namespace for terms for Legal Bases under GDPR is http://www.w3.org/ns/dpv-gdpr#

The suggested prefix for the GDPR Legal Bases namespace is dpv-gdpr

An ontology of Legal Bases under GDPR is available here.

The Github repository for DPV is here.

Status of This Document

This specification was published by the Data Privacy Vocabularies and Controls Community Group. It is not a W3C Standard nor is it on the W3C Standards Track. Please note that under the W3C Community Contributor License Agreement (CLA) there is a limited opt-out and other conditions apply. Learn more about W3C Community and Business Groups.

This document was published by the Data Privacy Vocabularies and Controls Community Group (DPVCG) as a first public working draft. If you wish to make comments regarding this document, please send them to public-dpvcg@w3.org (archived). All comments are welcome.

If you wish to make comments regarding this document, please send them to <u>public-</u>dpvcg@w3.org (subscribe, archives).

EDITOR'S NOTE

Participation

The DPVCG requests participation regarding open issues and welcomes suggestions on their resolution or mitigation. The list of open issues and their discussions to date can be found at https://www.w3.org/community/dpvcg/track/issues/open. Specifically, the DPVCG kindly requests proposals to extend its initial taxonomies by additional terms, where these are missing or need refinements in order to describe specific use cases of personal data handling. A list of issues at the time of creating this document can be found here. Other forms of participation such as comments and feedback are also welcome.

While we welcome participation via any and all mediums - e.g. via <u>Github</u> pull requests or issues, emails, papers, or reports - the formal resolution of contributions will be done via the DPVCG meeting calls and mailing lists. We therefore would suggest submitting submissions there once they reach the stage for formal approval.

Interested participants should submit their suggestions, feedbacks, and comments by 15th September 2019 in order to have them formally reviewed according to the scheduled timeline.

In order to propose/approve new terms, please include the following:

- term suggested URI/identifier
- class/property is the suggested term a class or a property?
- description a natural language description of the term as to be included in the vocabulary to describe the term in an unambiguous manner.
- domain/range for properties include information about domain and range
- superclasses/subclasses for classes include (if applicable) information about known sub/super-classes.
- superproperties/subproperties for properties include (if applicable) information about known sub/super-properties.
- related terms include if applicable otherwise related terms from other vocabularies and explain how they are related (e.g. skos:broader/skos:narrower, rdfs:seeAlso).
- source mention where the new term originates from (e.g. from a legal regulation or from an existing ontology, if possible with a link confirming the reference.

Table of Contents

1.	Introduction
2.	Namespaces
3.	Legal Basis under GDPR
3.1	Classes
3.1.1	A6-1-a-explicit-consent
3.1.2	A6-1-a-non-explicit-consent
3.1.3	A6-1-b
3.1.4	A6-1-c
3.1.5	A6-1-d
3.1.6	Аб-1-е
3.1.7	A6-1-f
3.1.8	A9-2-a
3.1.9	A9-2-b
3.1.10	А9-2-с
3.1.11	A9-2-d
3.1.12	А9-2-е
3.1.13	A9-2-f
3.1.14	A9-2-g
3.1.15	A9-2-h
3.1.16	A9-2-i
3.1.17	A9-2-j

§ 1. Introduction

The Data Privacy Vocabulary provides terms (classes and properties) to annotate and categorize instances of legally compliant personal data handling. In particular, the vocabulary provides LegalBasis as a top-level concept representing the various legal basis that can be used for justifying processing of personal data. Since these legal bases are defined in legislations within the scope of legal jurisdictions, we provide the legal bases specific to GDPR as a separate aligned vocabulary.

§ 2. Namespaces

The namespace for DPV-GDPR vocabulary is http://www.w3.org/ns/dpv-gdpr#. The table below indicates the full list of namespaces and prefixes used in this document.

Prefix	Namespace
dct	http://purl.org/dc/terms/
dpv	http://www.w3.org/ns/dpv#
dpv-gdpr	http://www.w3.org/ns/dpv-gdpr#
odrl	http://www.w3.org/ns/odrl/2/
owl	http://www.w3.org/2002/07/owl#
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs	http://www.w3.org/2000/01/rdf-schema#
skos	http://www.w3.org/2004/02/skos/core#
spl	<pre>http://www.specialprivacy.eu/langs/usage-policy#</pre>
svd	<pre>http://www.specialprivacy.eu/vocabs/data#</pre>
svdu	<pre>http://www.specialprivacy.eu/vocabs/duration#</pre>
svl	<pre>http://www.specialprivacy.eu/vocabs/locations#</pre>
svpu	<pre>http://www.specialprivacy.eu/vocabs/purposes#</pre>
svpr	<pre>http://www.specialprivacy.eu/vocabs/processing#</pre>
svr	<pre>http://www.specialprivacy.eu/vocabs/recipients</pre>
xsd	http://www.w3.org/2001/XMLSchema#

§ 3. Legal Basis under GDPR

Regulations such as the GDPR specify certain legal basis for carrying out the processing of personal data, which makes it mandatory for every processing to have one (or more) legal basis that justifies their compliance. DPVCG provides a list of legal bases as per the GDPR under the separate namespace of dpv-gdpr. Additional legal bases can be declared by subclassing dpv:LegalBasis.

The taxonomy lists a total of 17 legal bases as provided by Article 6 and Article 9 of the GDPR. The legal basis of 'consent' as defined in Article 6(1)(a) has been declared using the terms 'explicit' and 'non-explicit' to differentiate the requirements of the two in accordance of their requirements of compliance. Furthermore, legal basis provided by Article 6 apply to processing involving personal data whereas those in Article 9 apply specifically to processing involving special categories of personal data.

§ 3.1 Classes

```
\begin{array}{l} :A6-1-a-explicit-consent \mid :A6-1-a-non-explicit-consent \mid :A6-1-b \mid :A6-1-c \mid \\ :A6-1-d \mid :A6-1-e \mid :A6-1-f \mid :A9-2-a \mid :A9-2-b \mid :A9-2-c \mid :A9-2-d \mid :A9-2-e \mid \\ :A9-2-f \mid :A9-2-g \mid :A9-2-h \mid :A9-2-i \mid :A9-2-j \end{array}
```

§ 3.1.1 A6-1-a-explicit-consent

Class:	dpv-gdpr:A6-1-a-explicit-consent
Description:	explicit' consent.
Comments:	Valid consent in this case would have requirements for being 'explicit' in addition to requirements defined by A4-11. This is also mentioned in the Article 29 Working Party document "Guidelines on Consent under Regulation 2016/679 (wp259rev.01)"
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1/pnt_a/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-10
Approval Resolution:	https://lists.w3.org/Archives/Public/public-dpvcg/2019Apr/0094.html
Contributor:	Eva Schlehahn, Bud Bruegger, Harshvardhan J. Pandit, Rigo Wenning

§ 3.1.2 A6-1-a-non-explicit-consent

Class:	dpv-gdpr:A6-1-a-non-explicit-consent
Description:	consent
Comments:	Definition of consent: A data subject's unambigious/clear affirmative action that signifies an agreement to process their personal data (Rigo Wenning). What is referred to as 'non-explicit consent' here is also termed as 'regular' consent in the Article 29 Working Party document "Guidelines on Consent under Regulation 2016/679 (wp259rev.01)". This is the legal basis that requires consent but not at

	the level of being 'explicit'.
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1/pnt_a/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-10
Approval Resolution:	https://lists.w3.org/Archives/Public/public-dpvcg/2019Apr/0094.html
Contributor:	Eva Schlehahn, Bud Bruegger, Harshvardhan J. Pandit, Rigo Wenning

§ 3.1.3 A6-1-b

Class:	dpv-gdpr:A6-1-b
Description:	performance of a contract
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1 /pnt_b/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.4 A6-1-c

Class:	dpv-gdpr:A6-1-c
Description:	compliance with a legal obligation
is SubClass of:	dpv:LegalBasis

Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1 /pnt_c/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.5 A6-1-d

Class:	dpv-gdpr:A6-1-d
Description:	protection of the vital interests
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1 /pnt_d/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.6 A6-1-e

Class:	dpv-gdpr:A6-1-e
Description:	public interest or official authority
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1 /pnt_e/oj
Status:	accepted
Date Created:	2019-04-04

Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.7 A6-1-f

Class:	dpv-gdpr:A6-1-f
Description:	legitimate interests
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_6/par_1 /pnt_f/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.8 A9-2-a

Class:	dpv-gdpr:A9-2-a
Description:	explicit consent with special categories of data
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2 /pnt_a/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.9 A9-2-b

Class:	dpv-gdpr:A9-2-b
Description:	employment and social security and social protection law
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2 /pnt_b/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.10 A9-2-c

Class:	dpv-gdpr:A9-2-c
Description:	protection of the vital interests
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2 /pnt_c/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.11 A9-2-d

Class:	dpv-gdpr:A9-2-d
Description:	legitimate activities with appropriate safeguards by a foundation, association or any other not-for-profit body with a political, philosophical, religious or trade

	union aim and on condition that the processing relates solely to the members or to former members of the body or to persons who have regular contact with it in connection with its purposes and that the personal data are not disclosed outside that body without the consent of the data subjects;
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2/pnt_d/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.12 A9-2-e

Class:	dpv-gdpr:A9-2-e
Description:	data manifestly made public by the data subject
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2 /pnt_e/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.13 A9-2-f

Class:

Description:	establishment, exercise or defence of legal claims / courts acting in their judicial capacity
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2/pnt_f/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.14 A9-2-g

Class:	dpv-gdpr:A9-2-g
Description:	substantial public interest, on the basis of Union or Member State law
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2/pnt_g/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.15 A9-2-h

Class:	dpv-gdpr:A9-2-h
Description:	preventive or occupational medicine, for the assessment of the working capacity of the employee, medical diagnosis, the provision of health or social care or treatment or the management of health or social care systems and services on the basis of Union or Member State law or pursuant to contract with a health professional and subject to the conditions and safeguards referred to in paragraph

	3
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2/pnt_h/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.16 A9-2-i

Class:	dpv-gdpr:A9-2-i
Description:	public interest in public health
is SubClass of:	dpv:LegalBasis
Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2 /pnt_i/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

§ 3.1.17 A9-2-j

Class:	dpv-gdpr:A9-2-j
Description:	public interest, scientific or historical research purposes or statistical purposes based on Union or Member State law
is SubClass of:	dpv:LegalBasis

Source:	https://eur-lex.europa.eu/eli/reg/2016/679/art_9/par_2/pnt_j/oj
Status:	accepted
Date Created:	2019-04-04
Date Approved:	2019-04-05
Approval Resolution:	https://www.w3.org/2019/04/05-dpvcg-minutes.html
Contributor:	Eva Schlehahn, Bud Bruegger

<u>1</u>