Engaging Content
Engaging People

novel contribution!

Personalised Privacy Policies

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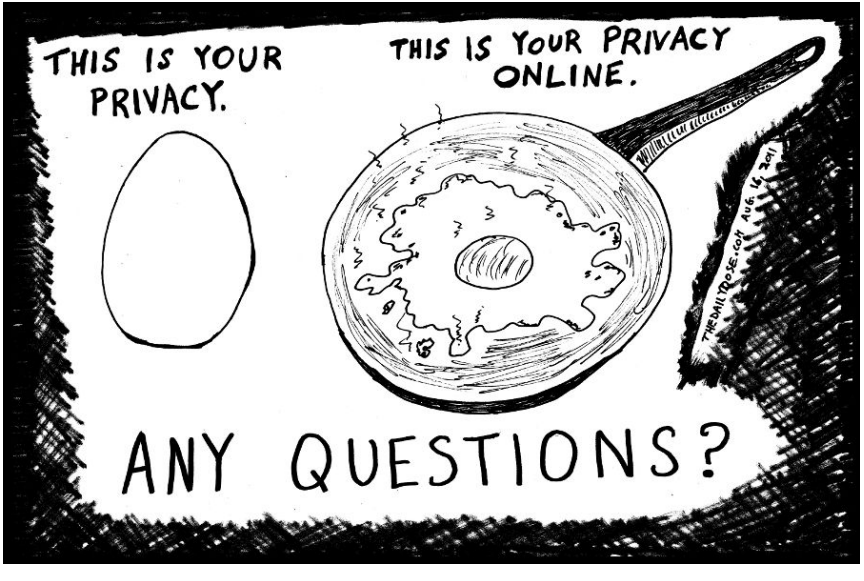
email me
- thoughts
- questions
- collaboration
- criticism

The ADAPT Centre is funded under the SFI Research Centres Programme (Grant 13/RC/2106) and is co-funded under the European Regional Development Fund.

Privacy Policy

privacy policy is a legal document (according to privacy laws) that discloses how (personal) data is -

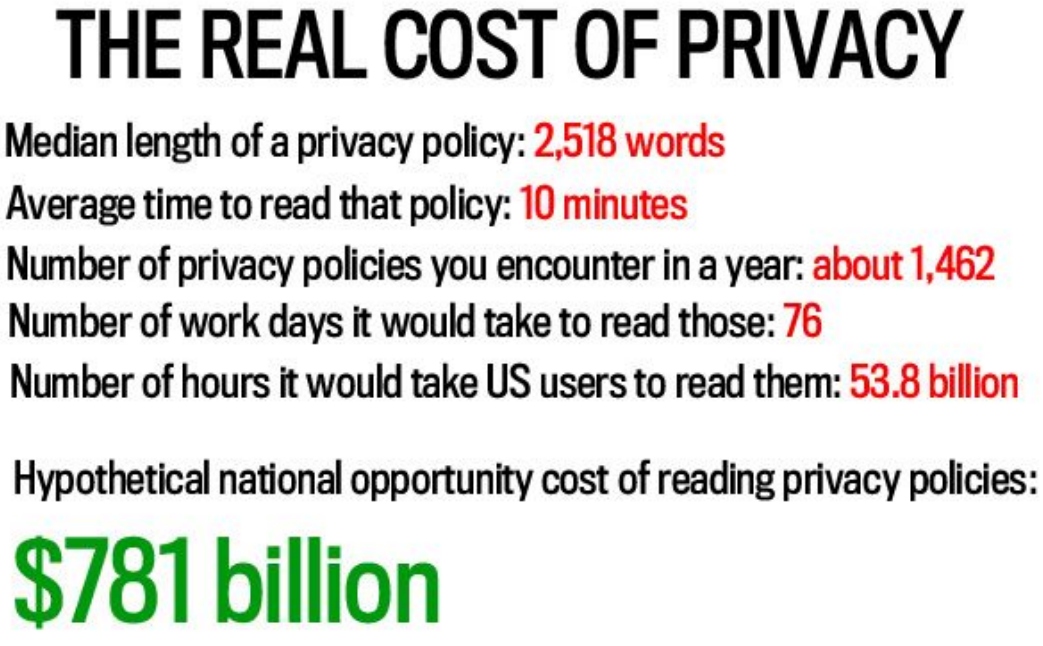
a) gathered
b) used
c) disclosed
d) managed



Reading Privacy Policies

Reading the Privacy Policies You Encounter in a Year Would Take 76 Workdays - Alexis C. Madrigal - The Atlantic - Mar 1, 2012

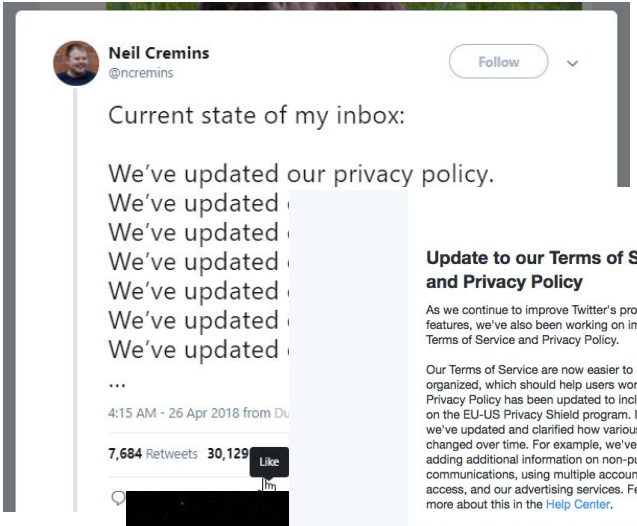
pre-GDPR

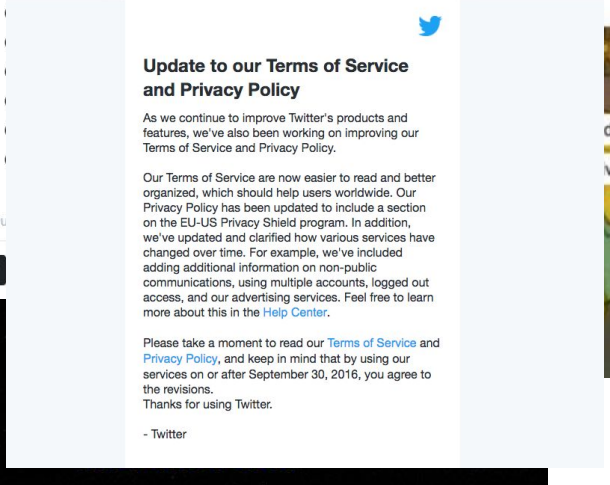


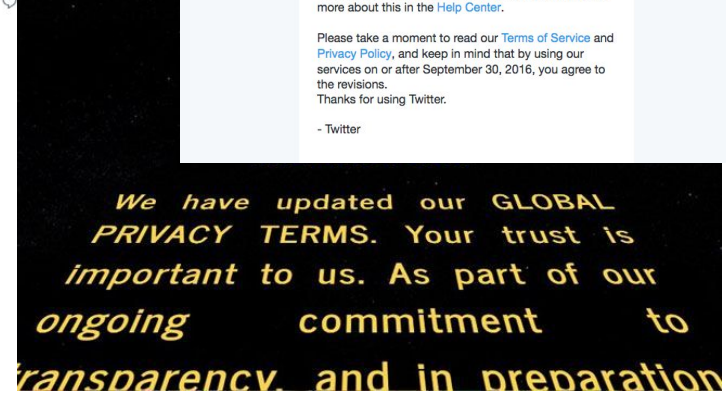
then came GDPR...

GDPR, which became enforced from 25th May specifies additional rights and obligations for information to be provided by the controller to the data subject before collecting happens.

Soon after 25th May...







"**Personalised Privacy Policies**" at TELERISE2018 http://openscience.adaptcentre.ie/
Presented by: Harshvardhan J. Pandit pandith@tcd.ie @coolharsh55

GDPR says...

Provide *specific* information to the user about how *their* data is being collected, used, stored, and shared.

Exactly what data?
How is it collected?
Shared with whom ?
Stored for how long?

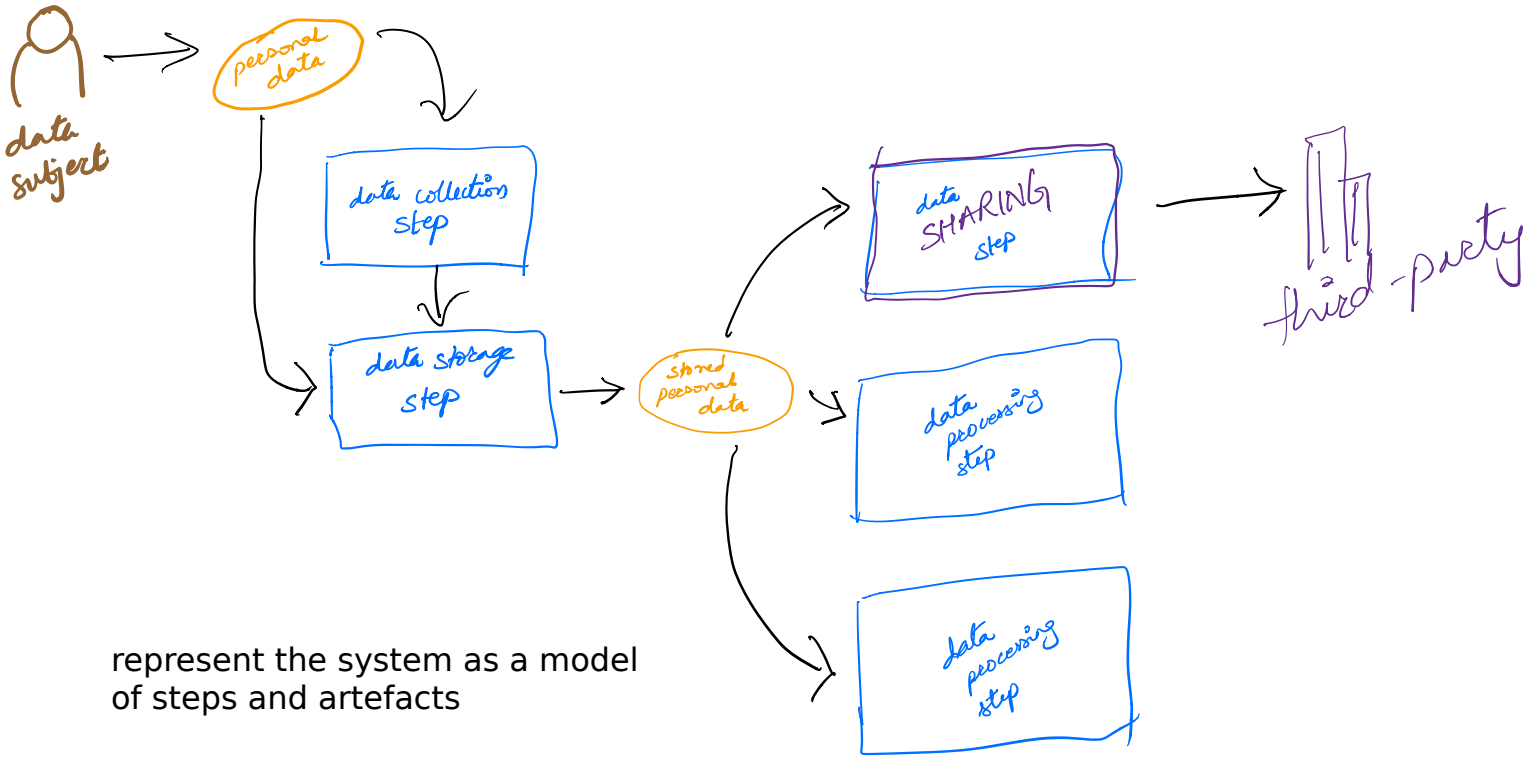
- Only for me i. e. Data Subject
- Not common to everyone
- Not generalised

But the Privacy Policy still says...

a) we *"may"* collect your data
b) we *"may"* store your data
c) we *"may"* use your data
d) we *"may"* share your data

Q: Are you collecting data?
A: Yes. No. "Maybe".

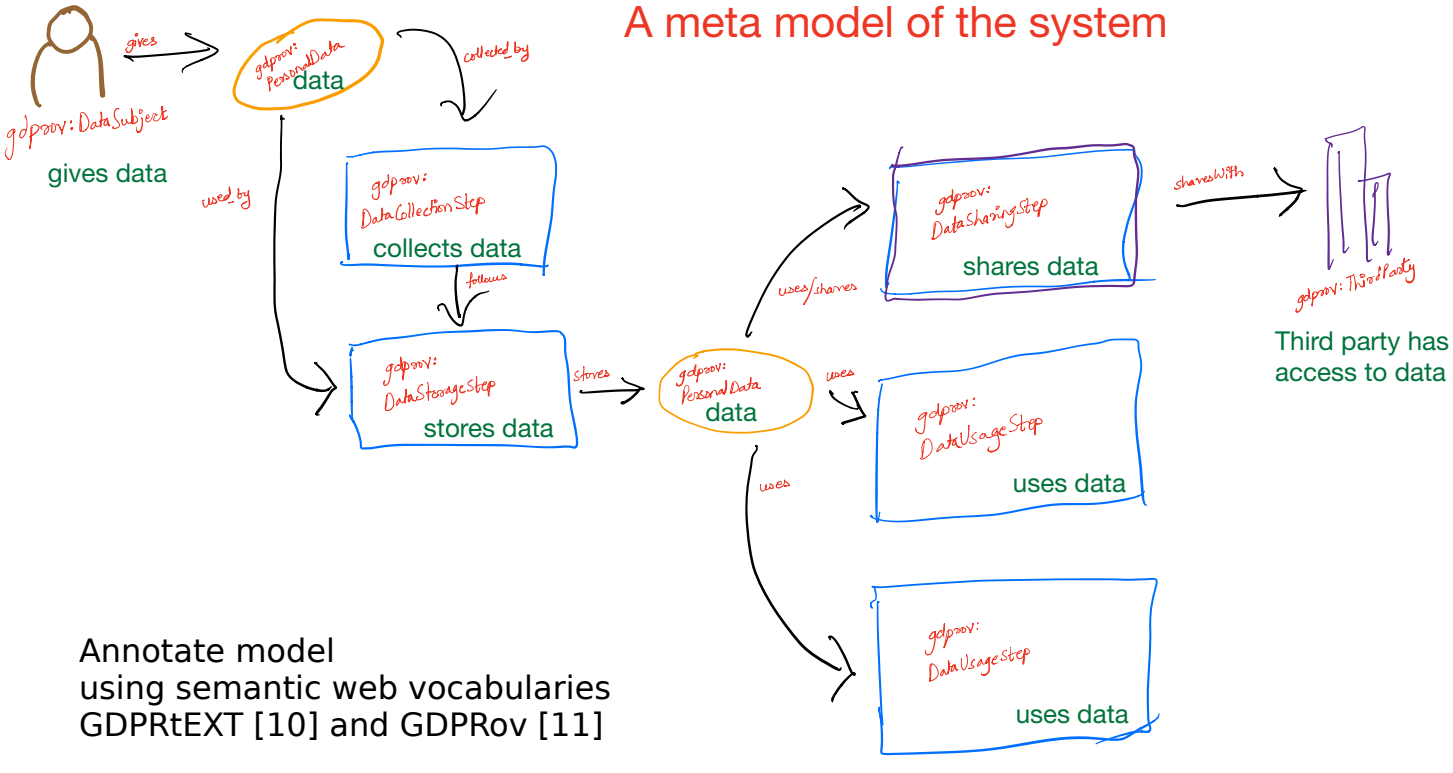
Resolving Ambiguity



represent the system as a model of steps and artefacts

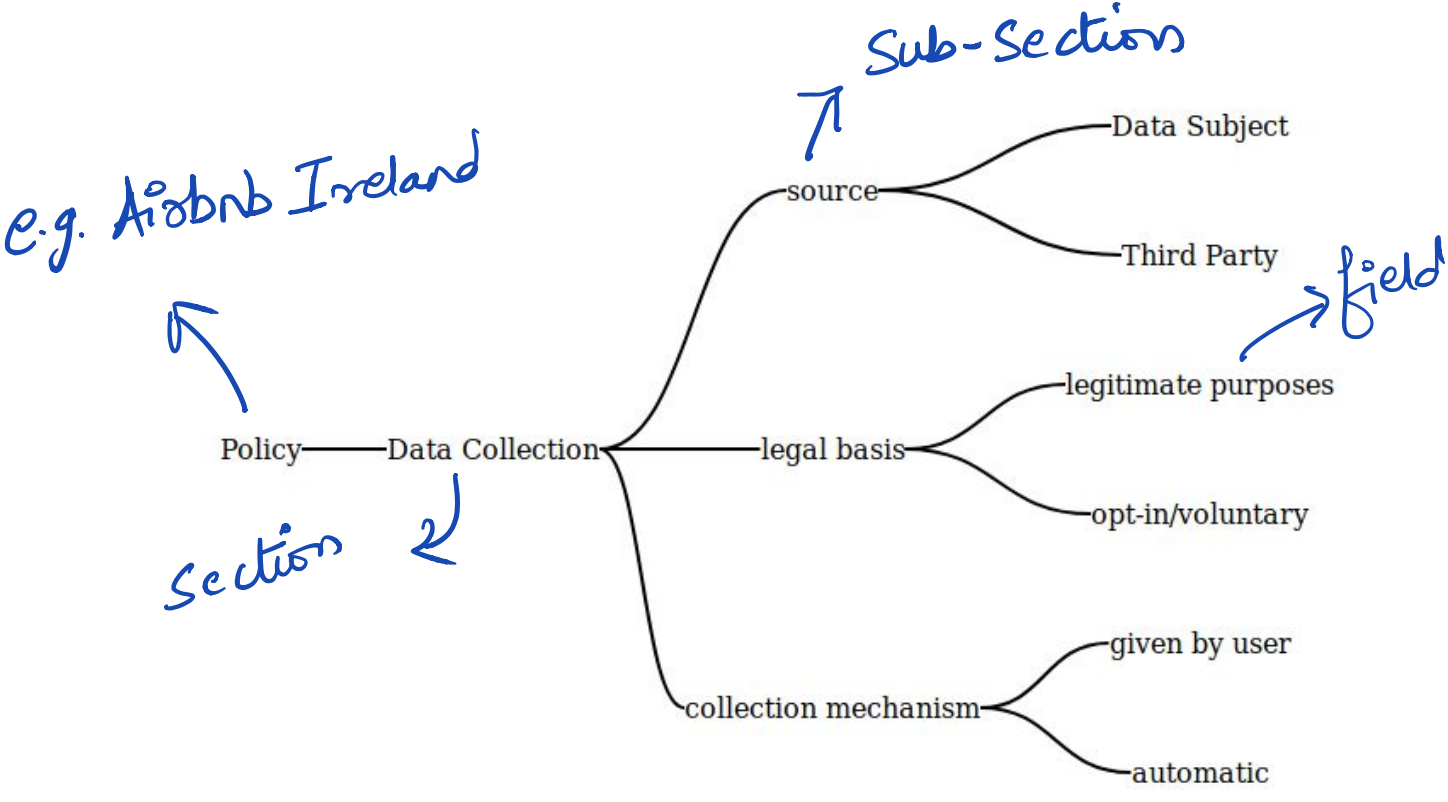
Resolving Ambiguity

A meta model of the system



Annotate model
using semantic web vocabularies
GDPRtEXT [10] and GDPRov [11]

Analysis of Privacy Policies



Annotate Privacy Policy

Privacy Policy

This privacy policy is part of a research project (see openscience.adaptcentre.ie) and is made available under the CC-by-4.0 license.

This privacy policy was derived from the policy provided by Airbnb Ireland (archived copy available here)

stored copy because privacy policies can change

This Privacy Policy describes how we collect, use, process, and disclose your information, including personal information.

Information We Collect

data collection

There are three general categories of information we collect:

data collected from user

1.1 Information You Give to Us.

legal basis

1.1.1 Information that is necessary for provision of services

legitimate interest

We ask for and collect the following personal information about you when you use our service. This information is necessary for the adequate performance of the contract between you and us and to allow us to comply with our legal obligations. Without it, we may not be able to provide you with all the requested services.

data category

data type

- **Account Information** When you sign up for an account, we require certain information such as your first name, last name, email address, and date of birth.
- **Profile and Listing Information** To use certain features, we may ask you to provide additional information, which may include your id address, phone number, and a profile picture.
- **Identity Verification Information** To help create and maintain a trusted environment, we may collect identity verification information (such as images of your government issued ID, passport, national ID card, or driving license, as permitted by applicable laws) or other authentication information.

purpose

process

- **Payment Information** To use certain features of the such as booking, we may require you to provide certain financial information (like

hide legend
- data category
- data type
- process
- automated
- legal basis
- data source
- data retention
- processor
- third-party
- data-sharing
- consent
- rights
- location

information categories

grouping of data

data instances

Why do it? Benefits!!!

1. Systematic representation of privacy policy metadata
2. Can generate privacy policy when system changes
3. Automation of policies
4. Structured metadata
5. Better for Data Subjects (more information available)
6. Metadata is also useful for compliance purpsoes

How to do it? Approaches...

TWO approaches - do it myself, or automate

A. Manually
   i) complex
   ii) requires legal clarity for concepts
   iii) time consuming

B. Automate
   i) faster
   ii) difficult to implement
   iii) can scale to large number of policies

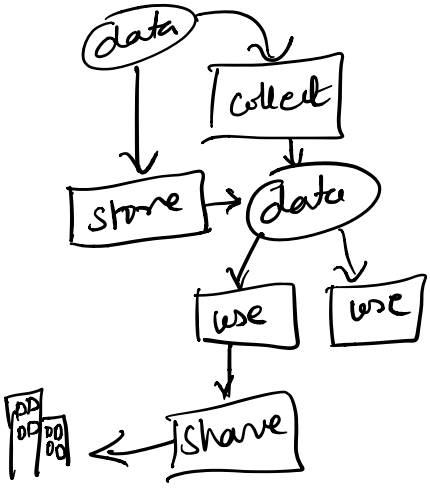
Future Work - More Annotations

1. method → a. annotate
   b. serialize → ontology
   c. model metadata

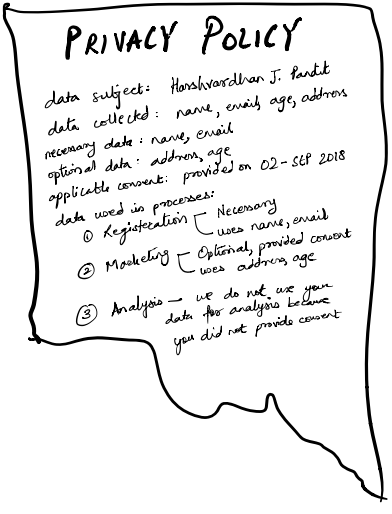
2. test → a. compare with right to data portability
   b. compare with methods that extract data from policies

3. demo

Future Work - Demo

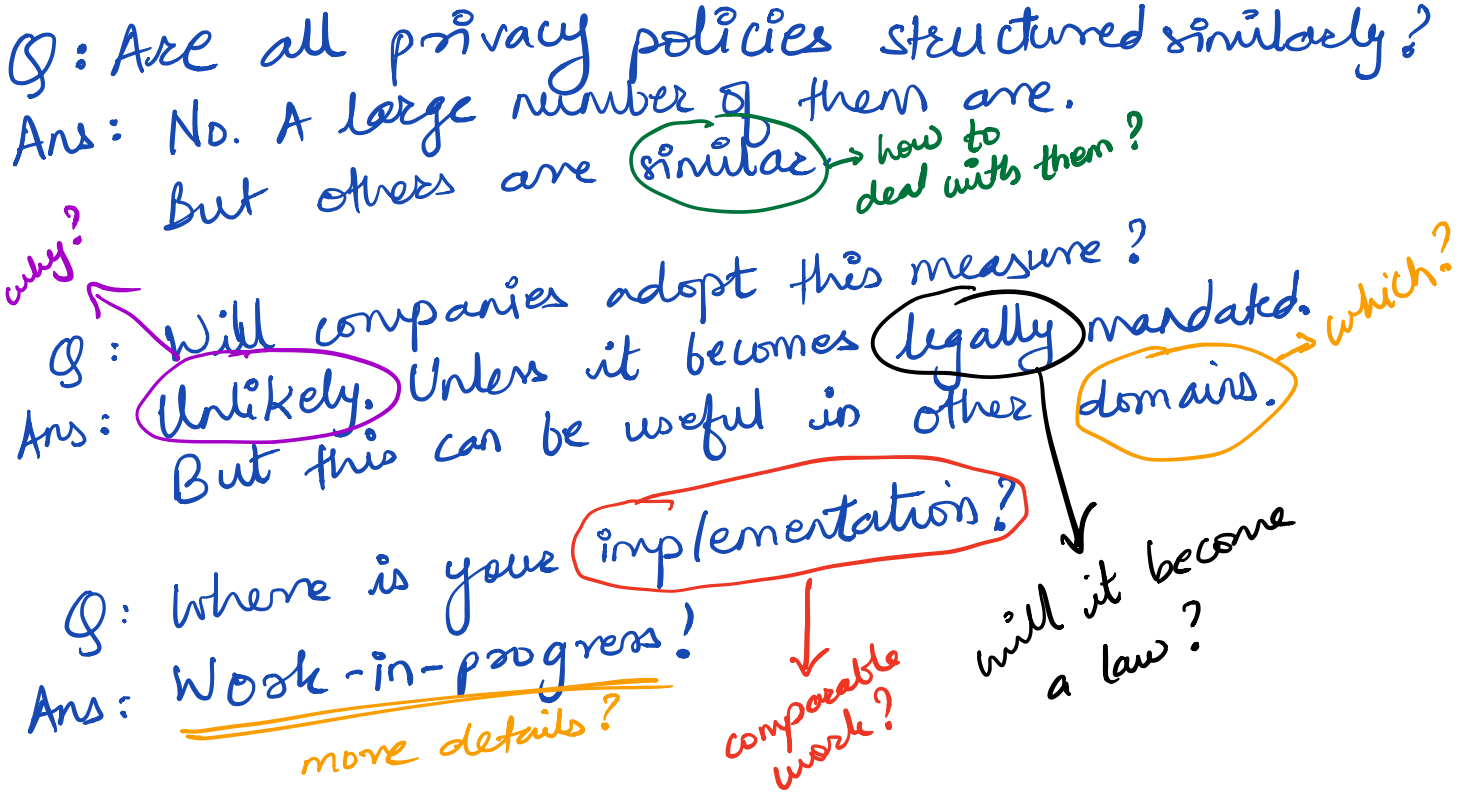



```
:name  a  gdprov:PersonalData;
       rdfs:label "name";
       gdprov:wasGivenBy "Harshvardhan".

:age   a  gdprov:PersonalData;
       rdfs:label "age";
       xsd:value  28;
       gdprov:wasGivenBy "Harshvardhan".

:Registeration  a  gdprov:Process;
       rdfs:label "Registeration";
       gdprov:hasStep  :SignUpForm;
       gdprov:hasStep  :CollectUserData;
       gdprov:hasStep  :StoreUserData;
       gdprov:hasLegalBasis gdpr:ext:legitimateInterest.

:Marketing  a  gdprov:Process;
       rdfs:label "Marketing";
       gdprov:hasStep  :SignUpForm;
       gdprov:hasStep  :CollectUserData;
       gdprov:hasStep  :StoreUserData;
       gdprov:hasLegalBasis gdpr:ext:Consent.
```



① define model

② convert to metadata

③ generate privacy policy

Let us discuss!