APDL

Association pour la Protection des Données au Luxembourg

EMMA GOODWIN
APDL BOARD MEMBER

DATA PRIVACY DAY – JANUARY 28 2020

MAINTAINING MOTIVATION IN CROWDSOURCING PROJECTS AND THE IMPLICATIONS OF GDPR: THE CASE STUDY OF CROWDMAP-THE-CRUSADES

STRUCTURE

(1) Motivation in crowdsourcing projects

(2) The case study of Crowdmap the Crusades 

(3) Results and lessons of the public medieval transcription competition

(4) GDPR in academic projects (data checklist, data analytics and future perspectives on machine learning and the internet of things)

(5) Project planning and GDPR

(6) Conclusion: Leveraging GDPR in academic research

(1) DEFINITION OF CROWDSOURCING

- The process of leveraging public participation in or contributions to projects and activities [S. Dunn and M. Hedges, 2012]

- Represents the act of an institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call [Jeff Howe and Mark Robinson, Wired Magazine]

- "Crowdsourcing uses social engagement techniques to help a group of people achieve a shared, usually significant, and large goal by working collaboratively together as a group" [Holley, 2010]

(1) CROWDSOURCING AND GAMIFICATION

[...] People participate in crowdsourcing projects for a variety of reasons, of which volunteerism and monetary rewards alone cannot satisfy (Brabham, 2012). Consequently, alternative motivational mechanisms need to be investigated to widen the appeal of crowdsourcing projects, and games represent such an option. (Lee et al, 2017)

(2) BRIEF INTRODUCTION TO THE CASE STUDY

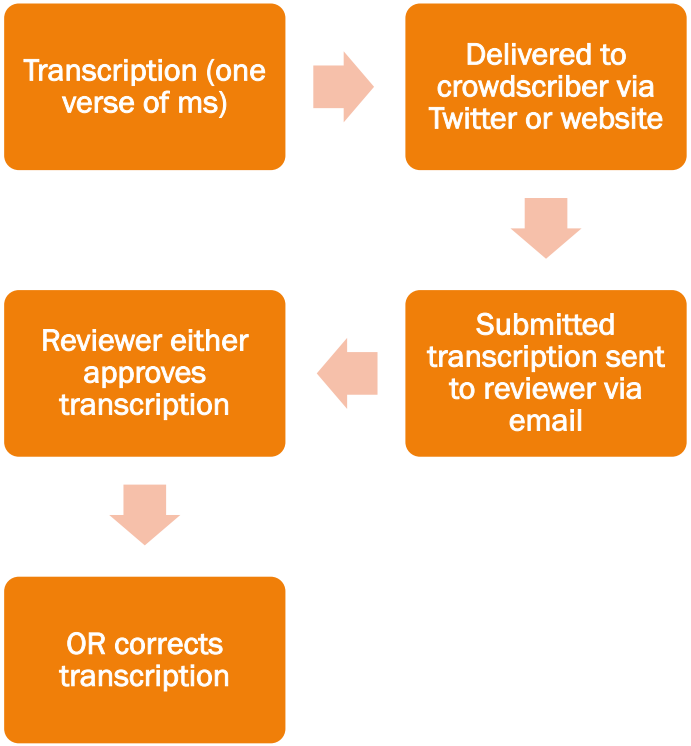
Crowdmap the Crusades

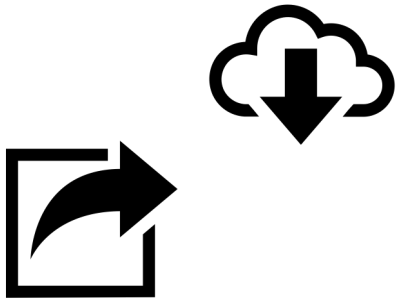
(2) OXFORD BODLEIAN HATTON 77, FOL. 3R

(2) A CONNECTION TO LUXEMBOURG?

Source:
Angus Mackay with David Ditchburn (eds)., *Atlas of Medieval Europe* (London and New York: Routledge, 1997), 87

(2) CROWDSOURCED TRANSCRIPTION MODEL





(3) MEDIEVAL FRENCH TRANSCRIPTION QUIZ

(3) THE CHALLENGE

- Transferring an activity (which to date had taken place in a virtual environment) into a live event
- Two-month timeframe
- Attracting enough interest and volunteers
- Creating an online leaderboard or other virtual reward system seemed impossible within the timeframe (and what about GDPR – see part 4)
- The audience for such an event was not one which would necessarily be interested in transcribing lines from an Old French manuscript

(3) KEY CONSIDERATIONS

- GDPR consent is NOT the same as informed or ethical consent
- Not enough to look at the GDPR alone, also need to check individual country requirements
- Processing of personal data could lead to unequal or unwanted treatment of an individual
- Therefore anonymisation or the appropriate legal basis is needed

VIDEO MADE BY A VOLUNTEER

(3) WAYS TO MOTIVATE (DIGITAL) VOLUNTEERS

(Holley 2010)

- Enjoyment
- Interest in learning new things
- Contributing to a worthy cause
- Desire to volunteer and give something back to the community
- Helping to achieve a group goal
- The goal/problem is so big it is a challenge
- Performing an important role in science or history and helping to record, find or discover new things
- Rewarding trust in participants

(4) GDPR IN ACADEMIC PROJECTS

- PRIMARY GDPR CONSIDERATIONS AT PROJECT INCEPTION
- THE DATA CHECKLIST
- FURTHER CONSIDERATIONS: GDPR AND DATA ANALYTICS, FUTURE PERSPECTIVES ON MACHINE LEARNING AND THE INTERNET OF THINGS
- LEVERAGING GDPR IN RESEARCH

(4) GDPR REGULATIONS IN LUXEMBOURG (FOR RESEARCH)

- Relevant law: *1er août 2018 portant organisation de la Commission nationale pour la protection des données et du régime général sur la protection des données*
- Articles 63 to 65 set out rules governing processing for the purposes of scientific or historical research or statistical purposes.
- Art. 63

  Where personal data are processed for scientific or historical research purposes or for statistical purposes, the controller may derogate from the rights of the data subject as laid out in Articles 15,16,18 and 21 of Regulation (EU) 2016/679, insofar as these rights are likely to render impossible or seriously impair the achievement of specific purposes, subject to the implementation of appropriate measures as referred to in Article 65.

(4) APPROPRIATE MEASURES – ARTICLE 65

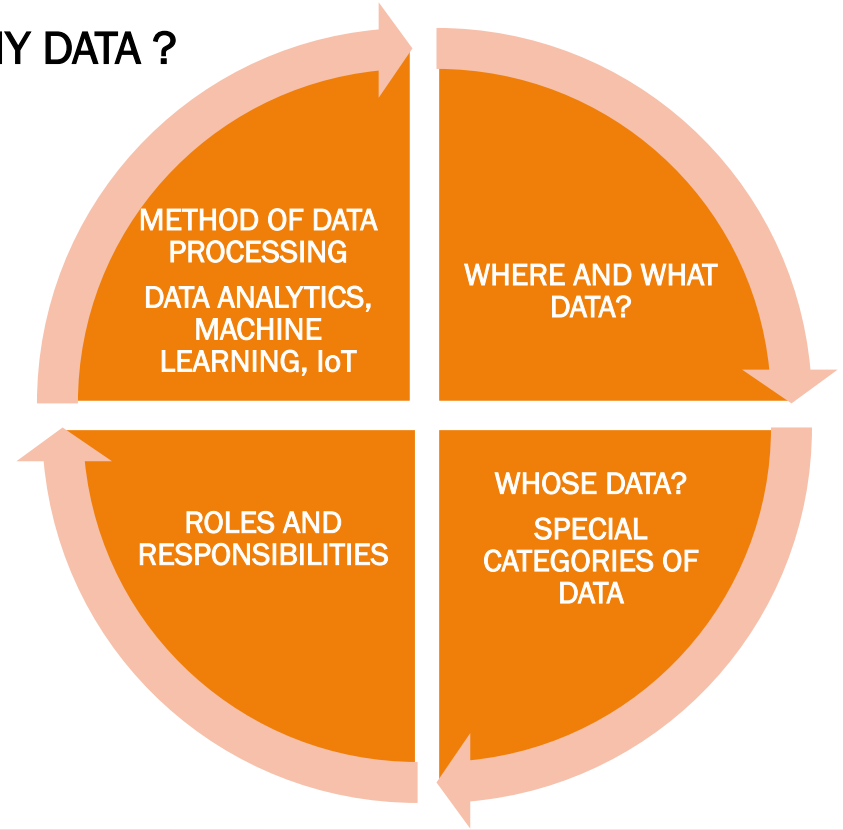
Art. 65
Taking into account the nature, scope, context and purposes of processing as well as the risks of varying likelihood and severity for the rights and freedoms of natural persons, the controller of processing carried out for scientific or historical research purposes or statistical purposes, must implement the following additional appropriate measures.

1º the appointment of a data protection officer;
2º the performance of an impact assessment of the planned processing activities on the protection of personal data;
3º the anonymisation and pseudonymisation as defined in Article 4, paragraph 5 of Regulation (EU) 2016/679, or other operational separation measures guaranteeing that the data collected for scientific or historical research purposes, cannot be used to adopt decisions or take actions concerning the data subjects;
4º the use of a trusted third party, operationally independent from the controller, for the anonymisation or pseudonymisation of the data;
5º the encryption of personal data in transit and at rest, as well as state of the art key management;
6º the use of technology reinforcing the protection of the private lives of data subjects;
7º the use of access restrictions to personal data within the controller;
8º the use of a log file enabling the reason, data and time that data is consulted and the identity of the person collecting, modifying or deleting personal data to be retraced;
9º promoting the awareness of the staff involved about the processing of personal data and professional secrecy;
10º the regular evaluation of the effectiveness of the technical and organisational measures implemented through an independent audit;
11º the prior drawing up of a data management plan;
12º the adoption of the sector specific codes of conduct as set out in Article 40 of Regulation (EU) 2016/679, approved by the European Commission pursuant to Article 40, paragraph 9 of Regulation (EU) 2016/679.

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

WHEN DOES GDPR APPLY TO MY DATA ?

FOLLOW THE DATA CHECKLIST



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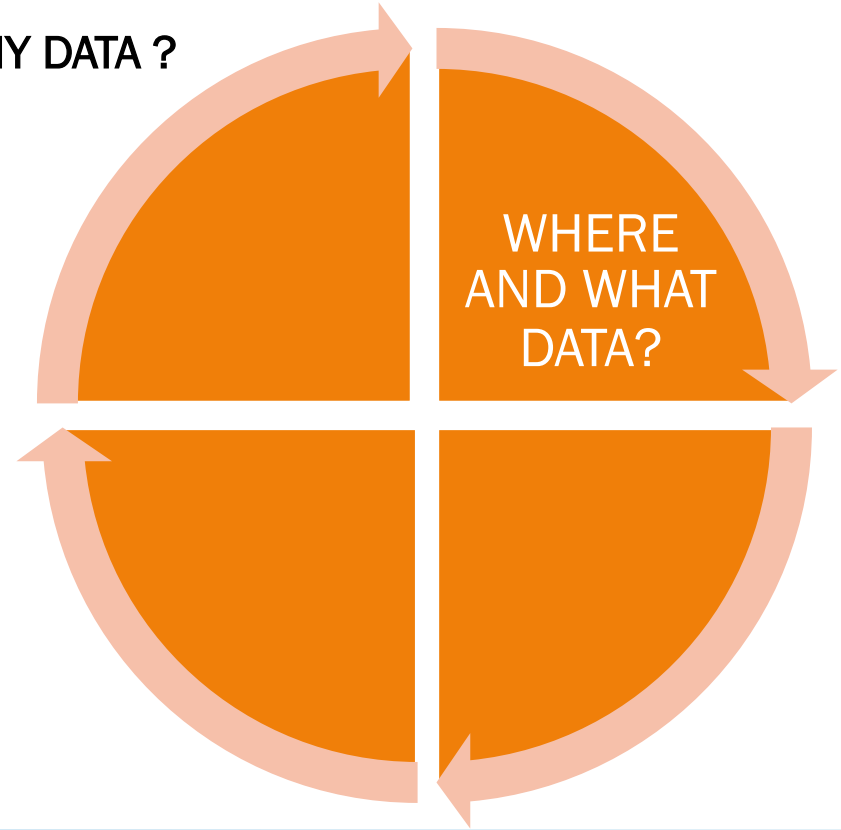

(4) WHERE IS THE DATA FROM? WHEN DOES GDPR APPLY?

Within EU	• GPDR may apply, depending on data type
Outside EU	• GPDR may apply, depending on data type, if the organisation or processor is processing European citizens‘ data
Outside EU	• GPDR may apply, depending on data type, if the organisation has an internet site accessible on EU territory, in a language of the EU

(4) WHAT IS MY DATA(TYPE)? DEFINITIONS

PERSONAL DATA - any information relating to an identified or identifiable natural person ('data subject'):

an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person"

APERSONAL DATA: Data which do not relate to people at all

ANONYMISED DATA: Informaton to do with people that was originally personal data, but which has undergone a process of anonymisation so that it becomes non-personal data

PSEUDONYMISED DATA: The process of distinguishing individuals in a dataset by using a unique identifier which does not reveal their 'real world' identity

(4) TO WHICH TYPES OF DATA DOES GDPR APPLY?

DEFINITIONS	DOES GDPR APPLY?
PERSONAL	YES (see later)
APERSONAL	NO
ANONYMISED	NO – HOWEVER IT IS ADVISABLE TO DO THIS UPON COLLECTION (SUBSEQUENT ANONYMISATION CONSTITUTES EDITING)
PSEUDONYMISED	YES (see later)

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

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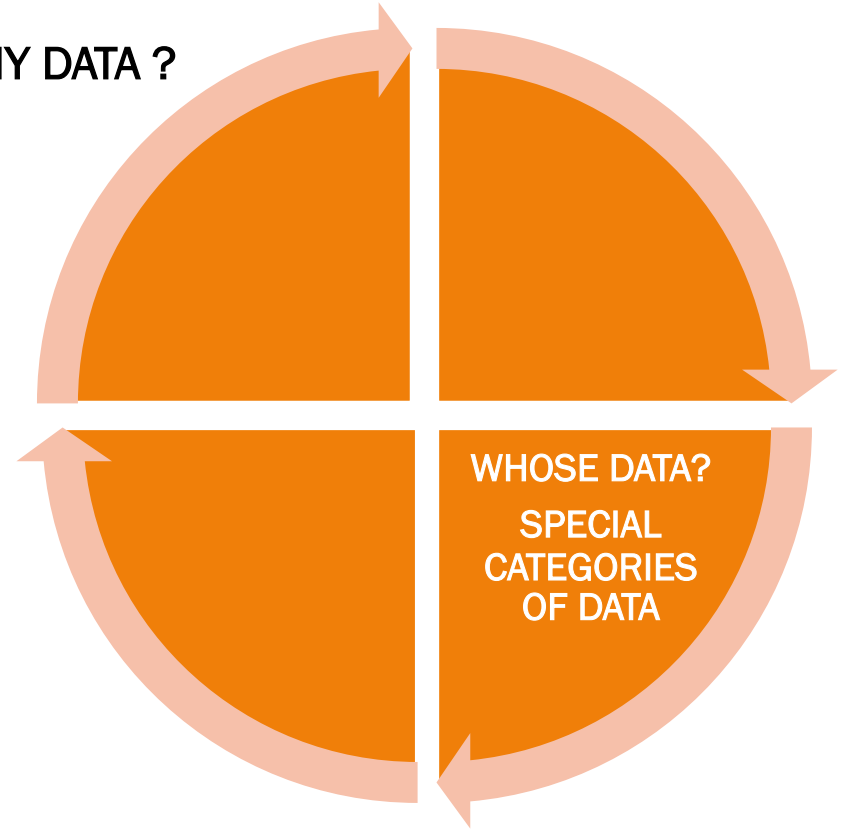


(4) THE DATA CHECKLIST : WHOSE DATA?

DATA SUBJECTS

It will usually be straightforward to determine whether the information you process ‘relates to’ an ‘identified’ or an ‘identifiable’ individual. However, in some circumstances, it may be less clear and you will need to carefully consider the information you hold to determine whether it is personal data and whether the GDPR applies

Factors to consider in determining whether you are processing personal data:

- identifiability and related factors;
- whether someone is directly identifiable;
- whether someone is indirectly identifiable;
- the meaning of ‘relates to’; and
- when different organisations are using the same data for different purposes

(4) SPECIAL CATEGORIES OF DATA

DATA SUBJECTS

Some of the personal data you process can be more sensitive in nature so it requires a higher level of protection.

The GDPR refers to the processing of these data as 'special categories of personal data', i.e. personal data about an individual's:

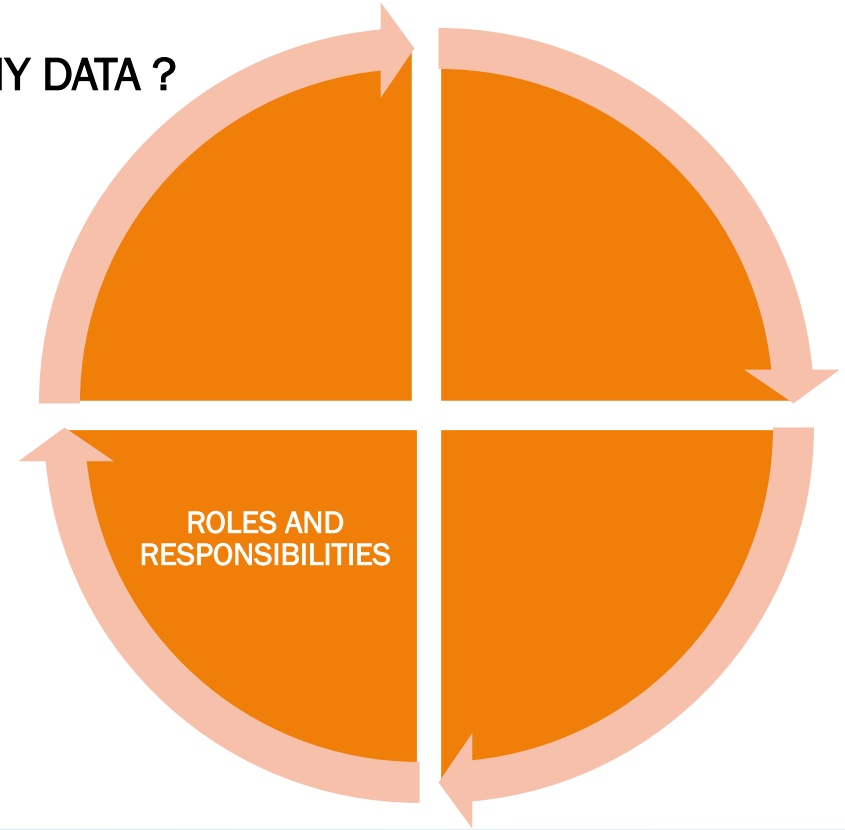
- race
- ethnic origin
- political opinions
- religious or philosophical beliefs
- trade union membership
- genetic data
- biometric data (where this is used for identification purposes)
- health data
- sex life; or
- sexual orientation.

Personal data can include information relating to criminal convictions and offences. This also requires a higher level of protection

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

WHEN DOES GDPR APPLY TO MY DATA ?

FOLLOW THE DATA CHECKLIST



(4) ROLES AND RESPONSIBILITIES?

DATA CONTROLLER (PRINCIPAL INVESTIGATOR)

☐ I decided to collect or process the personal data.

☐ I decided what the purpose or outcome of the processing was to be.

☐ I decided what personal data should be collected.

☐ I decided which individuals to collect personal data about.

JOINT CONTROLLER (PRINCIPAL INVESTIGATOR)

☐ We have a common objective with others regarding the processing.

☐ We are processing the personal data for the same purpose as another controller.

☐ We are using the same set of personal data (eg one database) for this processing as another controller.

☐ We have designed this process with another controller.

(4) ROLES AND RESPONSIBILITIES?

DATA PROCESSOR (RESEARCH ASSISTANT)

□ We are following instructions from someone else regarding the processing of personal data.

☐ We were given the personal data by a customer or similar third party, or told what data to collect.

☐ We do not decide to collect personal data from individuals.

☐ We do not decide what personal data should be collected from individuals.

☐ We do not decide the lawful basis for the use of that data.

☐ We do not decide what purpose or purposes the data will be used for.

☐ We do not decide whether to disclose the data, or to whom.

☐ We do not decide how long to retain the data.

☐ We may make some decisions on how data is processed, but implement these decisions under a contract with someone else.

☐ We are not (as) interested in the end result of the processing.

THIRD PARTY / DATA RECIPIENT

ANYONE OUTSIDE OF YOUR ORGANISATION WITH WHOM YOU SHARE DATA

(4) ROLES AND RESPONSIBILITIES?

DATA CONTROLLER

- Required to have a legal basis for processing personal data (GDPR Article 6(1)). There is a general prohibition on processing personal data unless a particular 'legal basis' exists as a prerequisite to lawful processing. There are six possible bases available under GDPR including the most recognised condition of obtaining the data subject's consent for the processing, and the 'legitimate interests' legal basis at Article 6(1)(f)
- Allowed to collect personal data only for specified, explicit, and legitimate purposes (GDPR, Article 5(1)(b))
- Per Article 29 WP: '[i]f a controller processes data based on consent and wishes to process the data for a new purpose, the controller needs to seek a new consent from the data subject for the new processing purpose.

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

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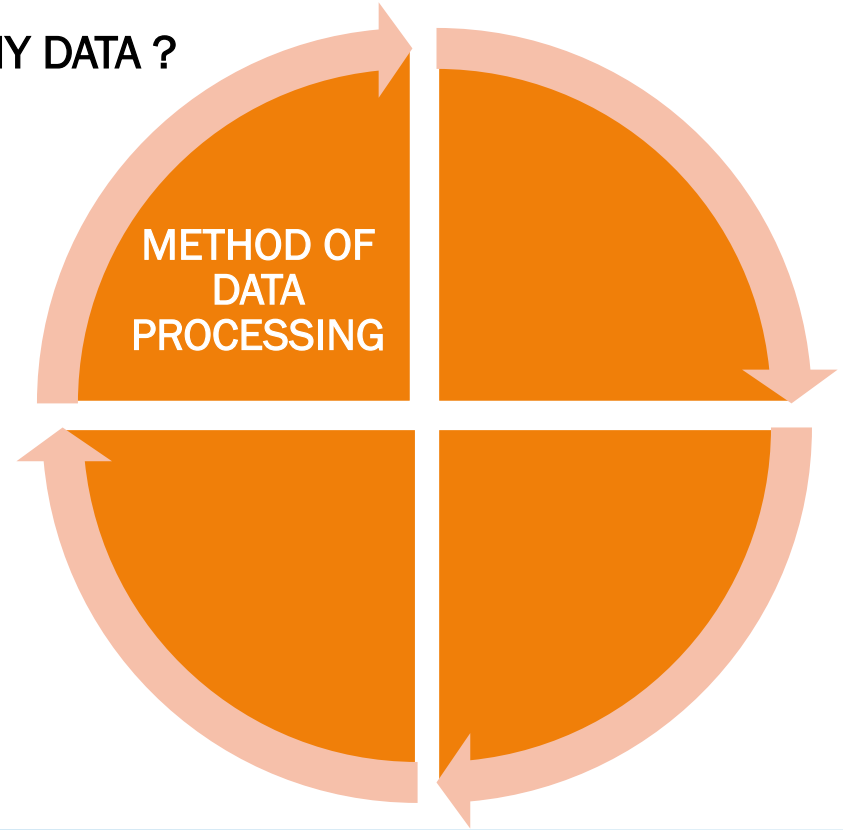

(4) METHOD OF DATA PROCESSING

The GDPR covers the processing of personal data in two ways:

- personal data processed wholly or partly by automated means (that is, information in electronic form); and
- personal data processed in a non-automated manner which forms part of, or is intended to form part of, a ‘filing system’ (that is, manual information in a filing system).

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

WHEN DOES GDPR APPLY TO MY DATA ?

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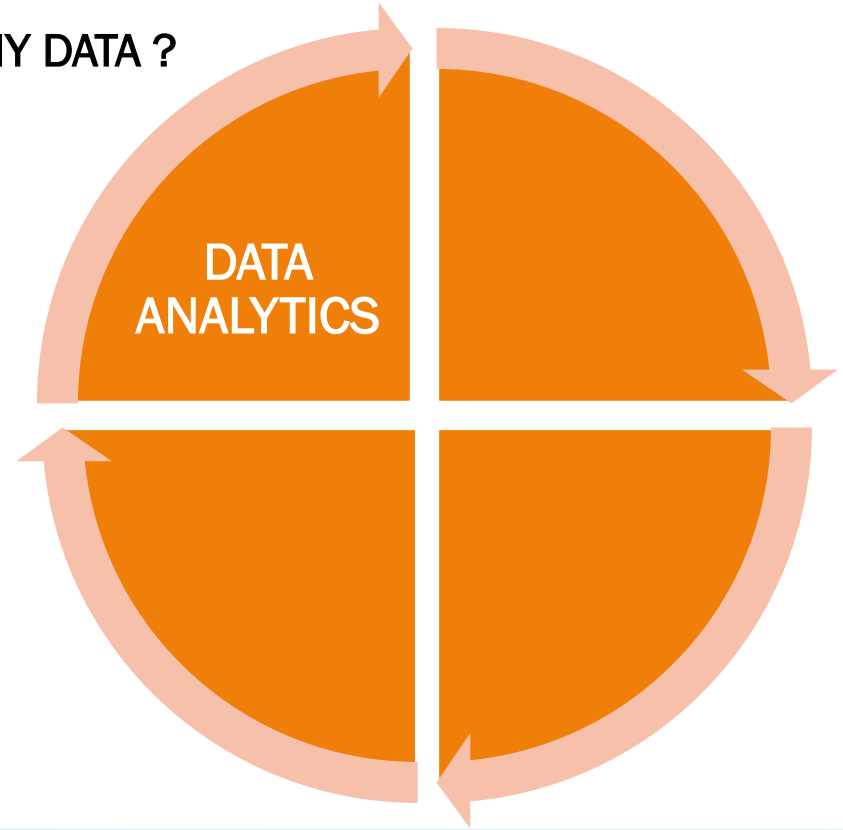

(4) DATA ANALYTICS AND GDPR?

Data analytics - applications

The Article 29 WP describes analytics as:

[S]tatistical audience measuring tools for websites, which often rely on cookies (type of tracking technology involving the storing of data in a user‘s computer by a website being visited). These tools are notably used by website owners to estimate the number of unique visitors, to detect the most preeminent search engine keywords that lead to a webpage or to track down website navigation issues.

- First-party analytic systems
- Third-party analytics

(4) DATA ANALYTICS AND GDPR?

- **Production of statistics versus other types of analytics involving profiling**

Under Article 4(4) of the GDPR, ‘profiling‘ means any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person‘s performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements.‘

Para 3.5 (GDPR): ‘The collection and processing of personal data in the context of profiling of persons who cannot express on their own behalf their free, specific and informed consent should be forbidden except when this is in the legitimate interest of the data subject or if there is an overriding public interest, on the condition that appropriate safeguards are provided for by law. ‘

Per the Article 29 WP Guidelines on Automated individual decision-making and Profiling, the secondary data analytics stage, i.e. analysis to identify correlations in personal datasets after collection, would in most cases be covered by the GDPR definition of profiling.

(4) DATA ANALYTICS AND GDPR?

Big data concerns associated with the usage of analytics on application:

- Data combination from disparate sources on a massive scale

=> tracking and profiling of individuals

=> granular personal details being linked, inferred, and shared;

- Non-secure data;
- Non-transparent decision-making (opaque algorithms);
- The consequences of automated decision-making

(4) DATA ANALYTICS AND GDPR?

- Anonymisation processes
- Data protection risks to individuals
- Legal basis of consent
- Legal basis of compatibility of purposes
- Principle of purpose limitation
- Principle of transparency

(4) DATA ANALYTICS AND GDPR?

- Recital 33 of the GDPR suggests that for scientific research purposes, the principle of purpose limitation should be relaxed because:

  it may not be possible to fully identify the purpose of personal data processing for scientific research purposes at the time of data collection.

- Data analytics practices do not come under the definition of scientific research
- Is a data scientist a researcher?
- Justification for repurposing of personal data

=> does it meet the legitimate interests condition?

(4) DATA ANALYTICS AND GDPR?

Research as a purpose

⇒ not a specific purpose

⇒ only a specified purpose.

- Processing for the purposes of research (in the sense of repurposing) is deemed as not incompatible with the initial processing
- Data subject rights apply differently depending upon the nature of the legal basis relied upon by the data controller
- Data analytics practices should not necessarily be equated to research activities

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

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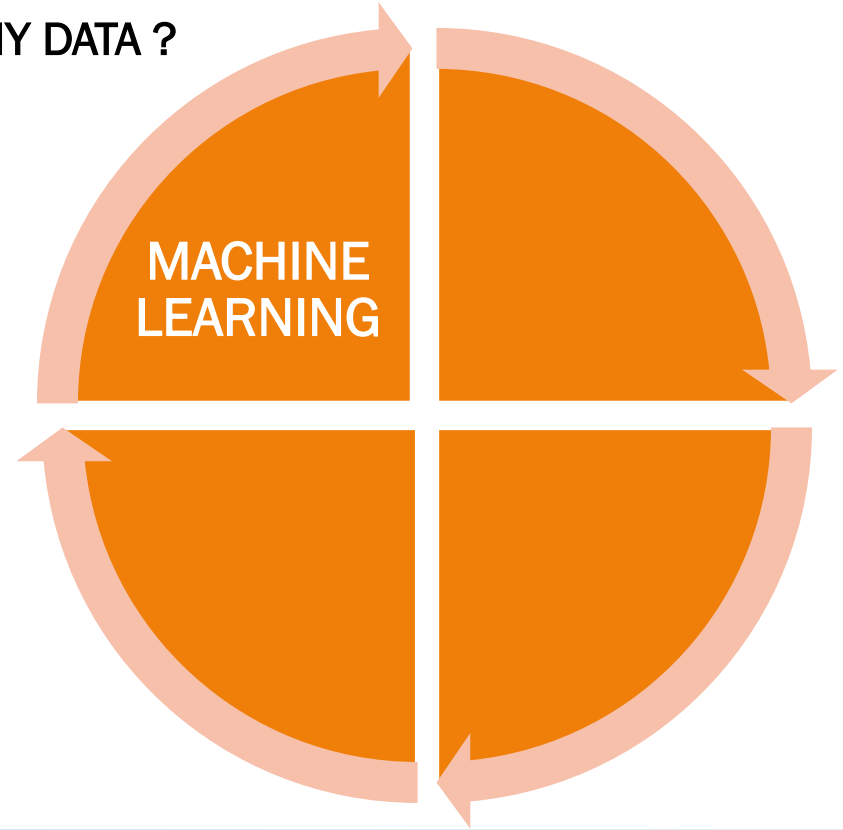

(4) MACHINE LEARNING AND GDPR?

- Fair machine learning through self-assessment measures
- Data Protection Impact Assessment
- Codes of conduct (CC)
- Algorithmic inequalities and differentiation
- Discriminatory risks of data processing activities
- Wider consideration of data processing activities through the DPIA and CC
- Scope of codes of conduct
- DPAs and bodies representing collective interests
- Working on the DPIA as a collaborative task

(4) PRIMARY GDPR CONSIDERATIONS AT PROJECT CONCEPTION

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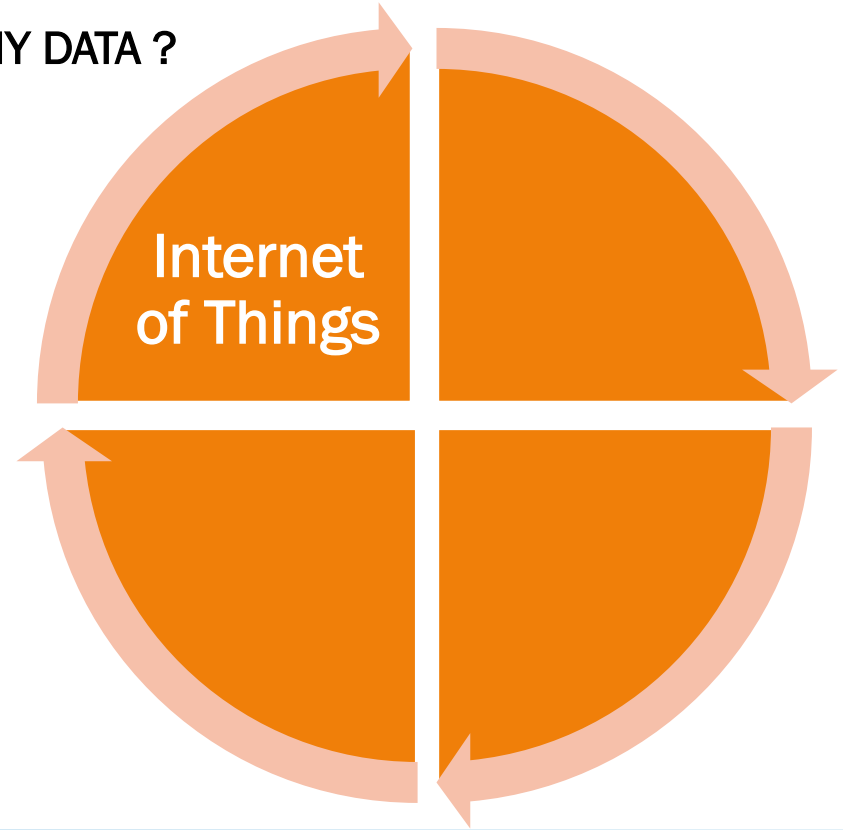
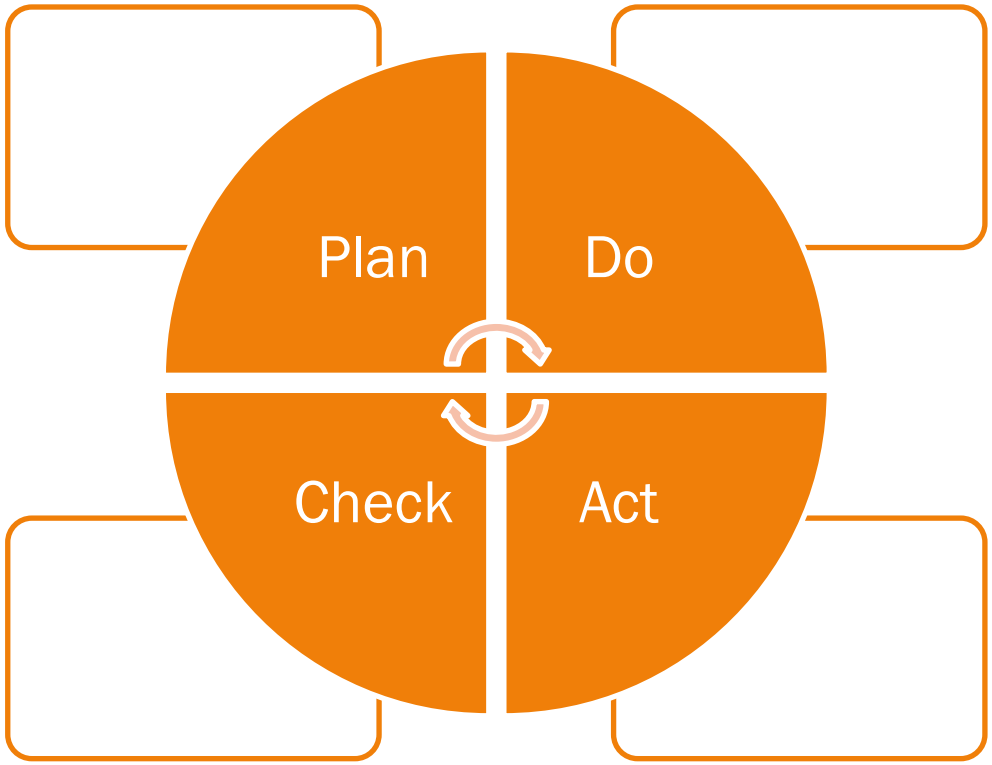


(4) FUTURE PERSPECTIVES: GDPR AND THE INTERNET OF THINGS?

- The concept of trust
- Analytic definition of trust as a tripartite relation between trustor A trusting B (human or system) in regard to C. This formulation can be used to define a user‘s (A) trust in the family of technical systems, unified by the consumer IoT label (B) to keep the user‘s private data protected (C)
- Psychological trust, rational trust and trust in technology.
- Trustworthiness of IoT systems
- The problem of trust in computer sciences
- Trust label solutions
- The moral value of distrust as a premise defining design requirement in IoT implementations?

(5) PROJECT PLANNING WITH GDPR



(5) PLAN

- HAVE I ATTENDED APPROPRIATE DATA PROTECTION TRAINING?
- FOLLOW THE DATA CHECKLIST
- CHECK THE DATA PROTECTION POLICY AND FOLLOW THE APPROPRIATE STEPS AS REQUIRED
- IF PROCESSING PERSONAL DATA, INFORM THE CISO / DPO COORDINATOR IN YOUR DEPARTMENT SO THAT THE PERSONAL DATA REGISTER CAN BE UPDATED
- IF INTENDING TO SHARE DATA ELECTRONICALLY, CHECK THE UNIVERSITY SECURITY INFORMATION POLICIES, DATA PROTECTION POLICY AND IF NEEDED, OBTAIN SPECIFIC ADVICE FROM THE CISO.
- IF A DPIA IS REQUIRED, LIAISE WITH SUPPORT FROM THE DPO / CISO (per Uni.lu Data Protection Policy)
- IF YOU ARE UNSURE IF A DPIA IS REQUIRED, ASK YOUR CISO / DPO TO CONTACT THE APDL AS WE HAVE A CHECKLIST TO HELP YOU DECIDE WHETHER A DPIA IS NEEDED!

(5) DO

GDPR CONSIDERATIONS / IMPLICATIONS

- WHAT SHOULD BE DOCUMENTED?
- CLEAR AND COHERENT DOCUMENTATION OF ALL PERSONAL DATA PROCESSING ACTIVITIES (THIS MAY BE SUBJECT TO AUDIT IN FUTURE)

(5) CHECK

GDPR CONSIDERATIONS / IMPLICATIONS

- HAVE I CHECKED AND FOLLOWED THE RELEVANT ORGANISATIONAL DATA PROTECTION POLICIES AND PROCEDURES?
- IS ALL THE DOCUMENTATION COMPLETE?
- HAVE I REMOVED ALL DOUBTS REGARDING HOW TO CARRY OUT COLLECTION AND PROCESSING OF PERSONAL DATA?

(5) ACT

GDPR CONSIDERATIONS / IMPLICATIONS

- RESEARCH CAN BEGIN
- INCLUDE MONITORING AND REVIEW OF DOCUMENTATION DURING PROJECT EXECUTION
- REPORT ANY BREACHES OF PERSONAL DATA TO THE CISO /DPO WITHIN 24 HOURS VIA THE APPROPRIATE CHANNELS (HEAD OF DEPARTMENT / PRINCIPAL INVESTIGATOR)
- LIAISE WITH DPO COORDINATOR AS REQUIRED

(6) LEVERAGING GDPR IN RESEARCH

- GDPR as a trust creator and a data sharing enabler for innovation
- Promotion of context-driven risk analyses
- Greater transparency about personal data processing practices
- Ongoing processing-centric assessments
- Reconciling data analytics with data protection requires purpose preservation over time
- Data protection impact assessments and codes of conduct as a path for data controllers to reflect upon the societal effects of machine learning processes
- GDPR as a safeguard for societal interests, beyond individual data protection

(6) USEFUL RESOURCES

IN LUXEMBOURG:

CNPD (cnpd.public.lu – website in French, English and German)

APDL (apdl.lu) - Members of the APDL have access to a checklist which can help to determine whether or not a DPIA is necessary

OTHER ONLINE RESOURCES ON GDPR:
edps.europa.eu/
www.ico.org.uk
www.cnil.fr

There is a useful lexicon of the key terms in the legislation in both French and English on the cnil website (www.cnil.fr/lexique-francais-anglais-sur-la-protection-des-donnees)

THANK YOU FOR LISTENING

ANY QUESTIONS?

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