

### Open Science, Licensing and Data Protection

Bern, 17 November 2023

Suzanna Marazza CCdigitalLaw c/o Università della Svizzera italiana



17.11.2023



### Program

- ☐ Intellectual property rights
- What is protected by copyright?
- How can I use copyrighted material?
- ☐ Licenses and Agreements
- ☐ What does "open" mean?
- What are Creative Commons Licenses?
- **☐** What are **Free and Open Source**

**Software Licenses?** 

- ☐ Data protection
- ☐ What are **personal data**?
- ☐ How do I **lawfully process** personal data?
- ☐ What is an **informed consent**?
- ☐ When do I need to consider Data

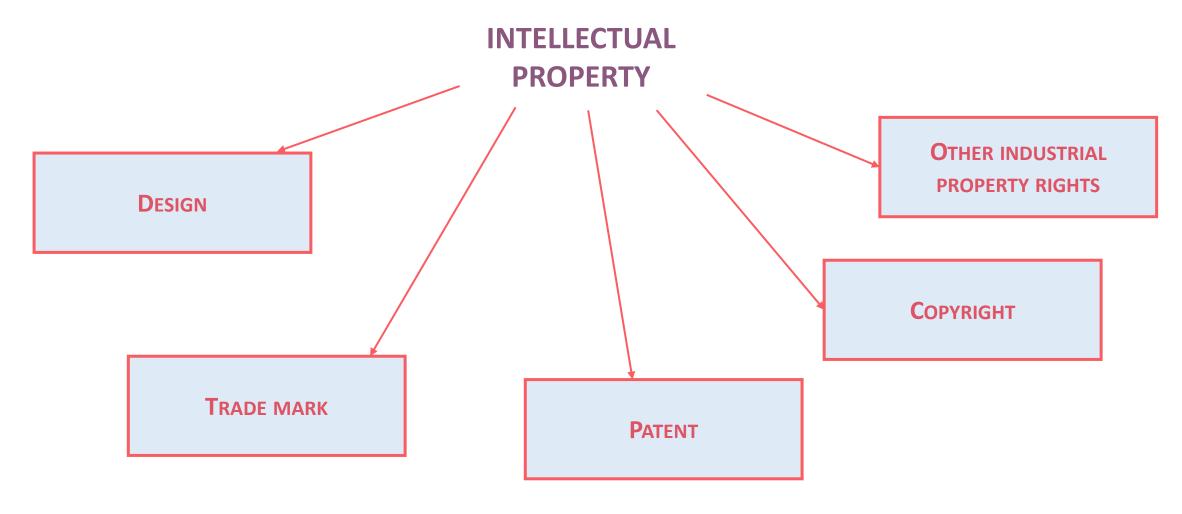
protection laws?



## Intellectual property rights

#### **INTELLECTUAL PROPERTY RIGHTS**

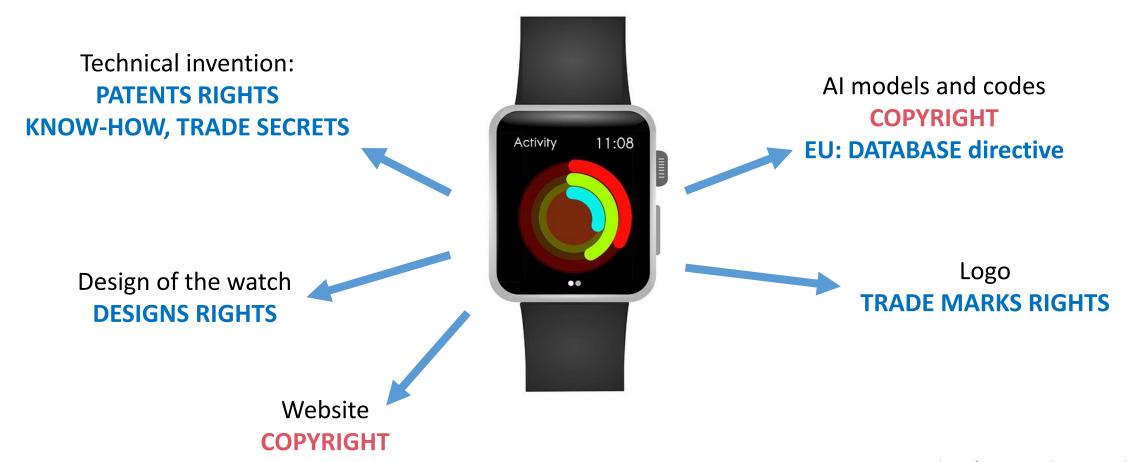




#### **INTELLECTUAL PROPERTY RIGHTS**



## Intellectual property rights of a smartwatch



Author of smartwatch image: Nikin

Source: Pixabay, https://pixabay.com/de/illustrations/smartwatch-apfeluhr-apfel-2845072



## What is protected by copyright?





- 1. Intellectual creation
- 2. Individual character
- 3. Form of expression



Arch. Mario Botta

















#### **Computer-generated works**





James Allen, Midjourney

#### **Computer-assisted works**



James Allen, Théâtre d'Opéra Spatial





### 2. Individual character



Photographs without individual character

→ Are also protected!



Bundesarchiv, Bild 183-14059-0005 / CC-BY-SA 3.0





Keystone



#### **Derivative works**

- ✓ Intellectual creations with individual character
- √ based upon pre-existing works
- ✓ the individual character of the pre-existing work remains identifiable.

- Translations
- Adaptations
- Modifications
- ...



https://pixabay.com/de/photos/salvador-dali-gegeben-uhr-zeit-2615717/



#### **Collected works**

√ individual character in selection and arrangement

- Newspaper
- Dataset
- CD
- ...



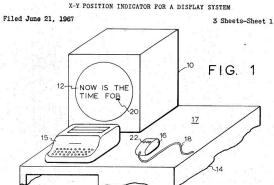




- Purely technical inventions → Patent law
- Patent specifications and published patent applications
- Laws, ordinances & other official decrees
- Banknotes and coins
- Court judgements, minutes & reports from authorities and public administrations Nov. 17, 1970
- Mere information, facts, data
- > Ideas







D. C. ENGELBART



FIG. 12

Bundesgesetz

über das Urheberrecht und verwandte Schutzrechte (Urheberrechtsgesetz, URG)

231.1

vom 9. Oktober 1992 (Stand am 1. Januar 2017)

Die Bundesversammlung der Schweizerischen Eidgenossenschaft gestützt auf die Artikel 95 und 122 der Bundesverfassung<sup>1</sup>,2

#### 1. Titel: Gegenstand

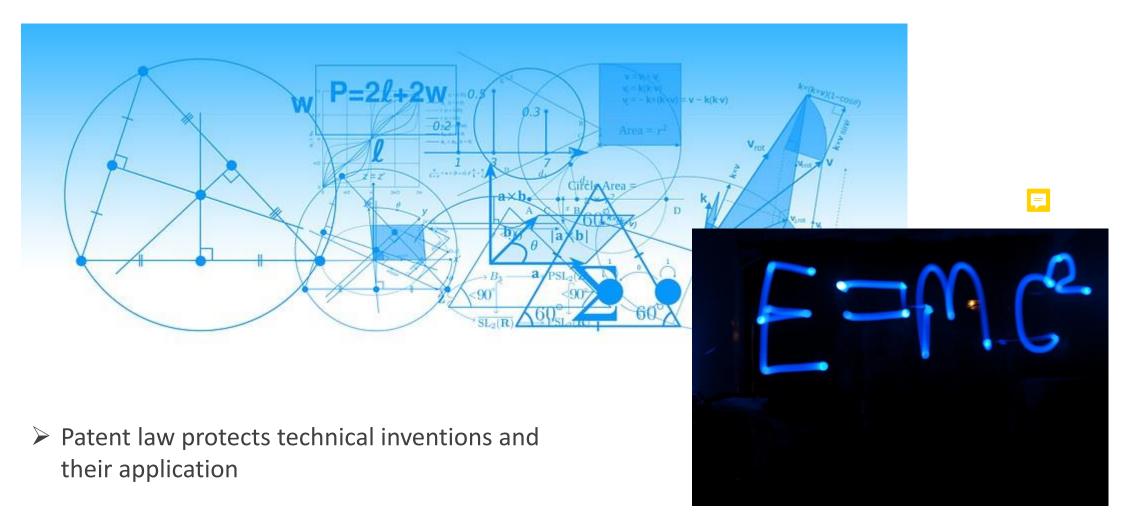
3.541.541

- den Schutz der Urheber und Urheberinnen von Werken der Literatur und
- den Schutz der ausübenden Künstler und Künstlerinnen, der Hersteller und Herstellerinnen von Ton- und Tonbildträgern sowie der Sendeunternehmen
- c. die Bundesaufsicht über die Verwertungsgesellschaften.

<sup>2</sup> Völkerrechtliche Verträge bleiben vorbehalten.

#### **COPYRIGHT VS PATENT LAW**





#### **COPYRIGHT VS PATENT LAW**





- ➤ Patent law protects technical inventions and their application (content of an idea)
- $\triangleright$  Copyright protects the form of ideas (e.g. the image of the formula E = mc2)

#### HOW LONG IS A WORK PROTECTED FOR?



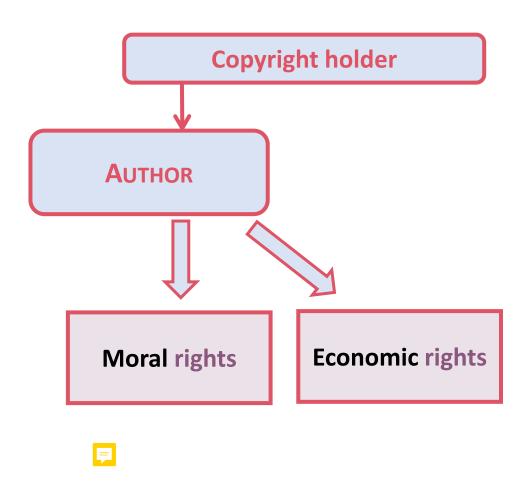




## Who are the Author and the Right holder?

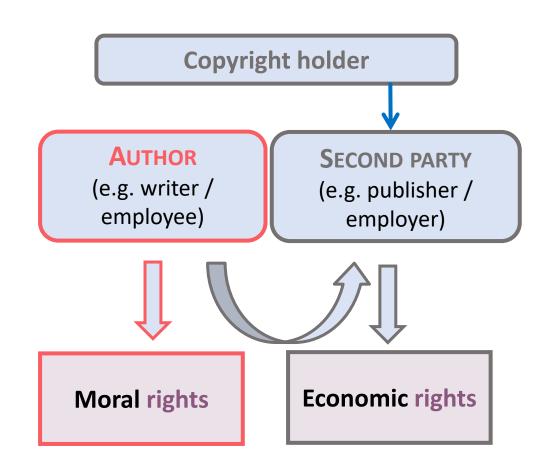


THE AUTHOR





# THE RIGHT HOLDER

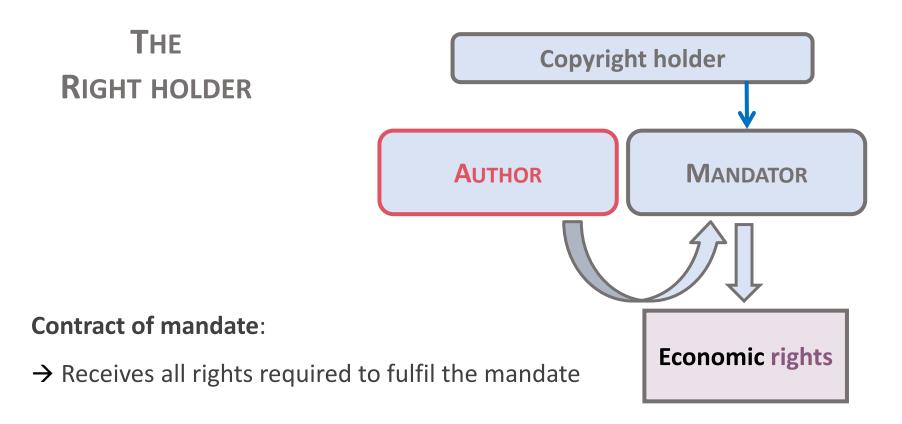


#### Through:

- Contract
- Law
- Internal regulation

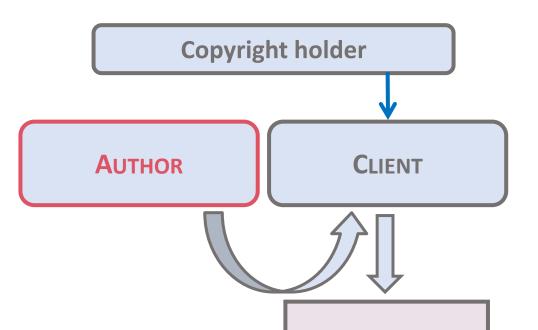
F







# THE RIGHT HOLDER



#### Sale agreement:

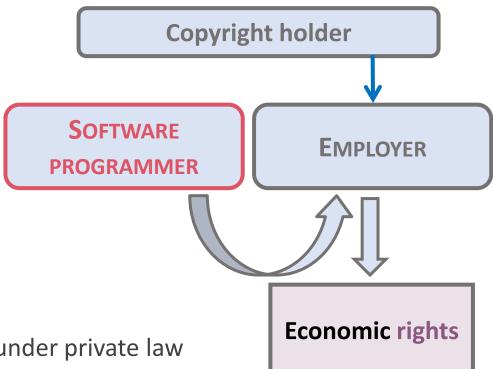
- → Buyers become RIGHT HOLDERS of the rights of use
- → The author no longer has any rights of use!
- → Buyers can resell or relicense.

### **Economic rights**

- Which rights of use (all /individual?)
- Duration?
- Which countries?



# THE RIGHT HOLDER





- → Only employment contracts under private law
- → NOT employment relationships under public law (such as employment contract with university)
  - → Transfer may be set in internal regulation





## How can I use a copyrighted work?



#### The rule is:

Always ask the rights holder for **permission** to use a protected work (= **license to use**)

#### There are **exceptions** (**legal licenses**):

- Private use
- Educational purposes
- Professional purposes
  - Right of quotation
- Text & data mining for research purposes



1.

**)** 

3.



**Legal license** 



**Bilateral license** 



**Predefined license** 

#### How can I use a copyrighted work?



#### Private use

- Anything to use alone (read, watch, view, see, copy, modify, ect.)
- When sharing: only with very small circle of persons



#### How can I use a copyrighted work?



#### Use for professional purposes

- ✓ Only between colleagues of same company
- ✓ For information and/or documentation purposes
- ✓ Only distribution of excerpt (no modifications allowed)



(Prolitteris Joint Tariff 8, 9)



#### Right of quotation

Published works may be quoted if the quotation serves as:

- √ explanation,
- √ reference or
- ✓ illustration,
- ✓ and the **extent** of the quotation is **justified for such purpose**.



**Caution with images and photos!** 







#### **Use of orphan works**

- ✓ Right holder unknown or cannot be found
- ✓ Appropriate research effort
- ✓ Contained in collections held by public or publicly accessible libraries, educational institutions, museums, collections and archives in Switzerland
- → Collecting society (= Prolitteris)





#### **Text and Data Mining**



- ✓ the work used must be **lawfully accessible**,
- ✓ its reproduction and copy is due to the use of a technical process and necessary for
  the research activity,
- ✓ the copy must not be done so to avoid supplement costs of the purchase of works,
- ✓ the source must be mentioned.



1.

2.

3.



Exceptions permitted by law



**Bilateral license** 



**Predefined license** 



#### **Licensing – Exclusive License**



Author Right holder Lincesor Right to reproduce and share the image



Licensee

e.g. money (Royalties), specifications, other obligations, nothing (no compensation)



#### **Licensing – Simple License**



Author Right holder Lincesor Right to reproduce and share the image



Licensee 2

Licensee 3

e.g. money (Royalties), specifications, other obligations, nothing (no compensation)

#### How can I use a copyrighted work?



1.

2.

3.



Exceptions permitted by law

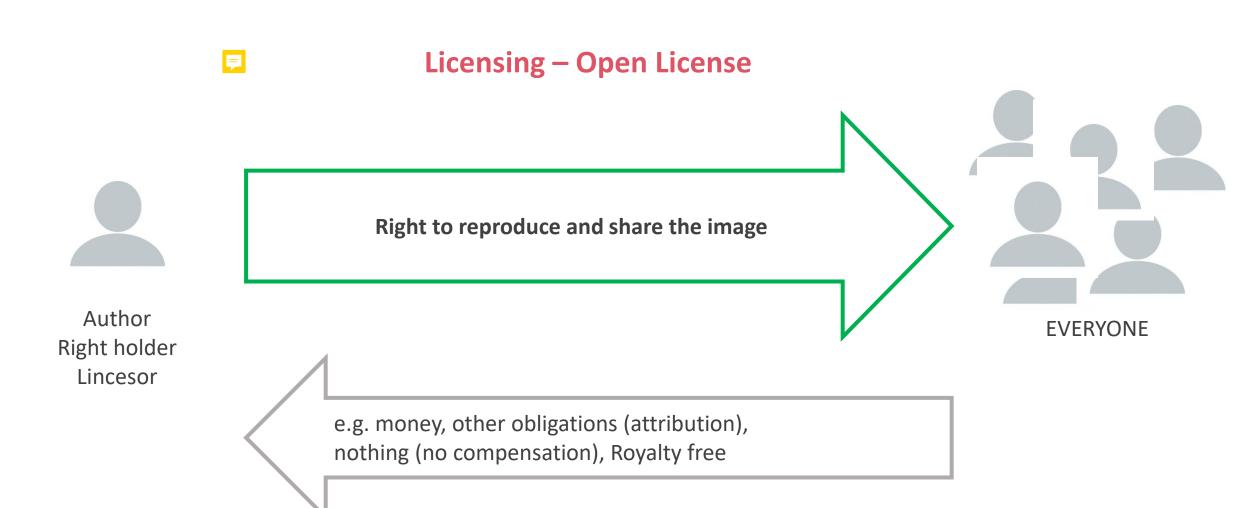


**Bilateral license** 



**Predefined license** 











Joan Miró







Salvador Dalí



## (Other) Licenses and Agreements

#### **LICENSES AND AGREEMENTS**



# How to protect company information?

- → General company information
- → Personal data (information about employees, customers, partners persons)
- → Know-how
  - → Information held in documents;
  - → Information engendered in people in the form of skills;
  - → Materials.

#### **LICENSES AND AGREEMENTS**



# How to protect company information?

- ☐ Intangible right absolutely protected by law
  - IP laws
- ☐ Intangible good relatively protected by law
  - → E.g. business data and know-how
  - Criminal law and Unfair competition law
  - Agreements (e.g. non-disclosure agreement, know-how contract)

#### **LICENSES AND AGREEMENTS**



# How to protect company information?

- > Intellectual property laws
- Management of sensitive information / documents
  - → Contracts (e.g. employment contract, non-disclosure agreement)
  - → Restricted access
  - → Awareness : "confidential; not to be copied"



# Coffee break





# Open Science

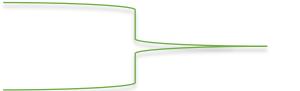


# Open Access

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities of 22 October 2003

All users should have a free, irrevocable, worldwide right of access and a license to:

- ☐ copy, use, distribute,...
- make and distribute derivative works



- > in any digital medium
- for any responsible purpose,
- > attribution of authorship

- ☐ make small numbers of printed copies for their personal use.
- ☐ A complete version of the work is published in at least one online repository

# **OPEN ACCESS**



# **Open Access**

Everybody has to be allowed to use, redistribute, modify, separate and compile an existing resource with other resources for any purpose.

#### **Creative Commons**

Everybody is allowed to reproduce, share in whole or part and modify (except: ND licenses, for any purpose (except: NC licenses).

# **Copyright law**

Nobody except owner of the Copyrights is allowed to copy, redistribute or modify for any purposes (apart for exceptions).



# Cc Creative Cc Commons



https://www.youtube.com/watch?list=PL76RNKr3LU8A YbvY8BtZMgiiQj-zd411&v=P1j0OA9N4hs







- 7 Pre-formulated licenses
- For copyright protected material
- Often used for research data and open educational resources
- Valid world wide



















#### All Creative Commons Licenses:

- Grant permission to
  - Copy
  - Modify (apart from ND)
  - Share
- **all** interested persons
- Some have conditions (BY & SA)
- Some limit the purpose (NC)









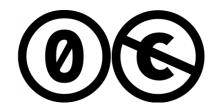








# License elements



CC<sub>0</sub>

Zero / public domain

No conditions

→ everything allowed (apart from respect personality author)



BY

**Attribution** 

**Condition** 

→ Where can the original be found and the author

→ Several attribution obligations



SA

**Share alike** 

**Condition** 

→ Preservation of openness

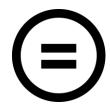


NC

Non-commercial

Limit

Not for commercial purposes



ND

**No-derivatives** 

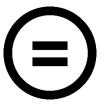
Limit

No modifications





cc creative commons CHART 2: WHAT USES ARE ALLOWED UNDER ND LICENCES?  Use Case  Permitted under ND?						
	Use Case	Permitted under ND?				
	Mashup video	No				
	Image or text in newspaper or journal	Yes				
	Music remix	No				
	Sampling	No				
	Image or text on website, blog or social media posting	Yes				
	Translation	No				
	Music synching	No				
	Screen adaptation (e.g. of a novel, music)	No				
	Images in catalogue	Yes				
	Article in text collection	Yes				
	Image Collage	Depends (generally No) 92				
	Parody	Depends on the jurisdiction 93				
	"Kitchen-Video" with background music	No				
	Documentary film integrating sound footage	No				



ND

**Non-derivatives** 

KREUTZER, Till, 2014. Open Content: a practical guide to using Creative Commons, p. 51, published under a CC-BY license https://upload.wikimedia.org/wikipedia/commons/0/07/Open\_Content\_-\_A\_Practical\_Guide\_to\_Using\_Creative\_Commons\_Licences.pdf



CHART 1: WHO CAN USE NC CONTENT IN WHAT USE CASE?

ABBREVIATIONS:
Yes = Use of NC content
is permitted
No = Use of NC content
is not permitted
n.a. = Not applicable, i.e.
such constellation is
inconceivable in the
logic of the chart as
explained above

User type	Company	Public institution	Non- profit NGO	Free- lancer	Private person
Sell hardcopies	No	No	No	No	No
Licence content against payment	No	No	No	No	No
Use for advertising	No	No	No	No	No
Use to make money	No	No	No	No	No
Use for the job	n.a.	n.a.	n.a.	No	n.a.
Use on a website that displays ads to recover hosting costs	No	Yes	Yes	No	Yes
Use on a platform, where the platform provider (not the content provider) displays ads	No	Yes	Yes	No	Yes
Use for inhouse education and information	No	Yes	Yes	No	n.a.
Use for private entertainment and to entertain friends/family of the user	n.a.	n.a.	n.a.	n.a.	Yes
Use to inform/entertain customers/clients/audience	No	Yes	Yes	No	Yes
Use in tuition-free courses for educational purposes	No	Yes	Yes	No	Yes
Use in tuition-based courses for educational purposes	No	No	No	No	No
Use for corporate-funded research	No	No	No	No	n.a.
Use for tax-funded research	No	Yes	Yes	No	n.a.
Use for inhouse corporate research	No	n.a.	n.a.	No	n.a.





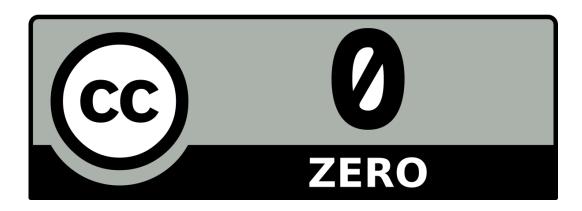
NC Non-commercial

KREUTZER, Till, 2014. *Open Content: a practical guide to using Creative Commons*, p. 46, published under a CC-BY license https://upload.wikimedia.org/wikipedia/commons/0/07/Open\_Content\_-\_A\_Practical\_Guide\_to\_Using\_Creative\_Commons\_Licences.pdf





# CC zero/CC0



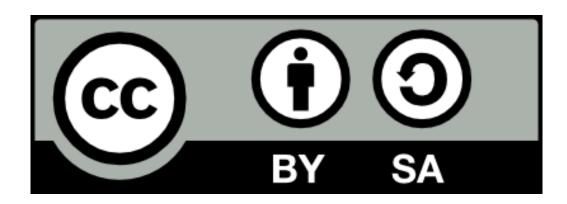
#### CC-0 License:

- All people of the world
- Copy
- Modify
- Share
- For any purpose
- No requirements of attribution
- No requirements to write the source
- No requirements to provide its license
- No requirements to release the modified version under a license





# CC-BY-SA license



- All people of the world
- Copy
- Modify
- Share
- For any purpose
- Requirement of attribution!!! (Element BY)
- Requirement for the modified version (Element SA)
  - Share Alike, "Copyleft"







# **Creative Commons Share Alike license**



Owner of copyrights

Right to copy



**Right to modify** 



Right to distribute copy and modifications





Attribution (name the author) when re-sharing

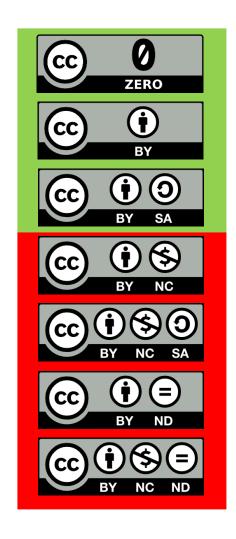


Attach the same license when re-sharing





All Creative Commons Licenses



OER definition from opendefinition.org (also Berlin Declaration of Open Access).

NOT «open» in the sense of opendefinition.org

# How do I LICENSE?



License name: CC-BY-SA

License symbol:



"Commons Deed": https://creativecommons.org/licenses/by-sa/4.0/deed.en

License text (legal full text):

https://creativecommons.org/licenses/by-sa/4.0/legalcode

→ It must be read before use!

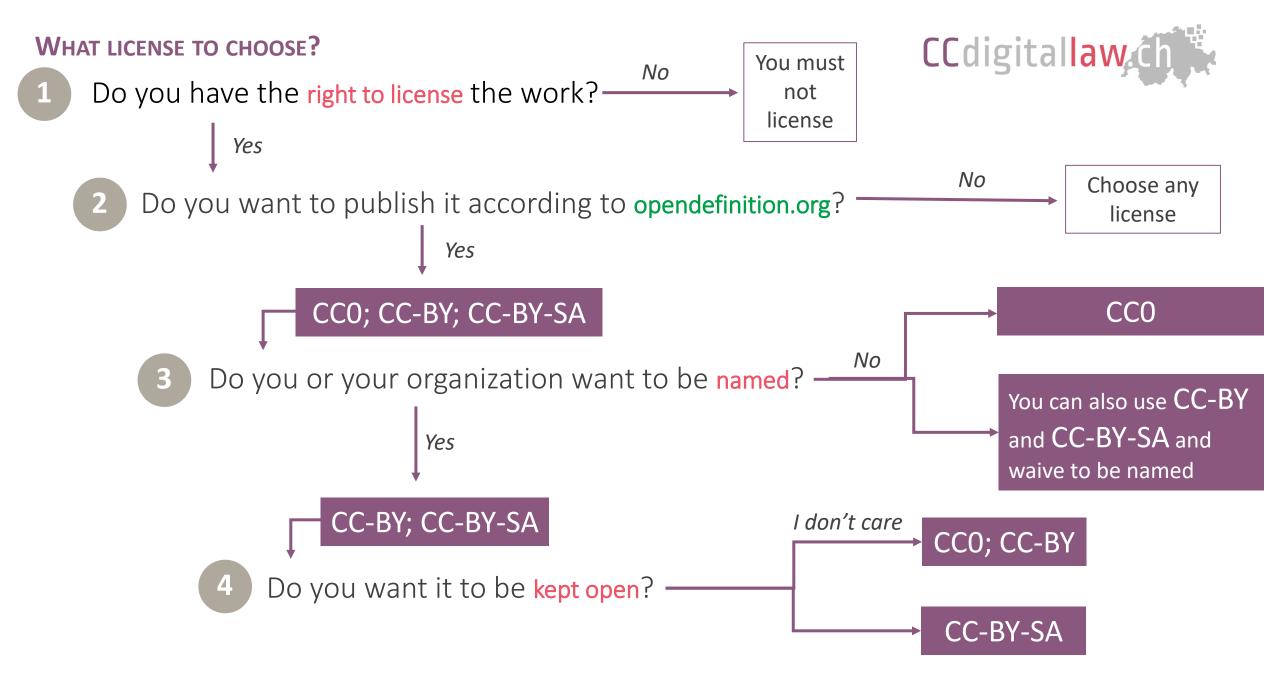
Attach the license symbol or the license name to the work

- → Reference to license text
- → Similar to: «Our general conditions and terms apply»

Where should I attach it?

→ Where best visible

→ CC license chooser: <a href="https://creativecommons.org/choose/">https://creativecommons.org/choose/</a>







# **Copyright and Software**

#### • Works:

- «literary and artistic intellectual creations»
- with an «individual character»
- for example a computer program (Source Code and Object Code)
- Bundle of exclusive rights to use
  - Right to **copy** the work
  - Right to **distribute** work
  - Right to **modify** the work
  - (Moral rights)





# Source Code

- Understandable for humans
- Modifiable
- Not understandable for computers
- Can be trade secret/know-how (you do not need it to run a computer program)

```
b(b){return this.each(function(), b(b){return this.each(function(), b(b){return this.each(function()), b(b){return()}
be(b)()))\range c=function(b){this.element=a(b)};c.VERSION="3.3.7",c.TRANSITION_DURATION=150,c.prot
       menu)"),d=b.data("target");if(d||(d=b.attr("href"),d=d&&d.replace(/.*(?=#[^\s]*$)/,"")),
 t a"),f=a.Event("hide.bs.tab",{relatedTarget:b[0]}),g=a.Event("show.bs.tab",{relatedTarget:e[0]
 aultPrevented()){var h=a(d);this.activate(b.closest("li"),c),this.activate(h,h.parent(),functio
rigger(\{type: "shown.bs.tab", relatedTarget:e[0]\})\}\}\}, c.prototype.activate=function(b,d,e)\{function(b,d,e)\}
  > .active").removeClass("active").end().find('[data-toggle="tab"]').attr("aria-expanded",!1),
 ia-expanded",!0),h?(b[0].offsetWidth,b.addClass("in")):b.removeClass("fade"),b.parent(".dropdot
 ().find('[data-toggle="tab"]').attr("aria-expanded",!0),e&&e()}var g=d.find("> .active"),h=e&&
  ")||!!d.find("> .fade").length);g.length&&h?g.one("bsTransitionEnd",f).emulateTransitionEnd"
;var d=a.fn.tab;a.fn.tab=b,a.fn.tab.Constructor=c,a.fn.tab.noConflict=function(){return a.fn.t
  how")};a(document).on("click.bs.tab.data-api",'[data-toggle="tab"]',e).on("click.bs.tab.data
 se strict"; function b(b){return this.each(function(){var d=a(this),e=d.data("bs.affix"),f="objection"}), f="objection"}
typeof b&&e[b]()})}var c=function(b,d){this.options=a.extend({},c.DEFAULTS,d),this.$target=a
",a.proxy(this.checkPosition,this)).on("click.bs.affix.data-api",a.proxy(this.checkPositionWi
null, this.pinnedOffset=null, this.checkPosition()};c.VERSION="3.3.7",c.RESET="affix affix-top"
State=function(a,b,c,d){var e=this.$target.scrollTop(),f=this.$element.offset(),g=this.$targ
"bottom"==this.affixed)return null!=c?!(e+this.unpin<=f.top)&&"bottom":!(e+g<=a-d)&&"bottom"
!!=c&&e<=c?"top":null!=d&&i+j>=a-d&&"bottom"},c.prototype.getPinnedOffset=function(){if(this
.RESET).addclass("affix"); var a=this.$target.scrollTop(),b=this.$element.offset(); return
ent.height(),d=this.options.offset,e=d.top,f=d.botto
```

CCO image, retrieved from: https://www.pexels.com/photo/close-up-code-coding-computer-239898/

# Object Code

- Translated from Source Code
- Zeros and Ones
- Other terms: *machine code or* binary
- Executable or understandable for computers
- Not understandable for humans therefore not modifiable
- Reverse engineering very difficult if not impossible







- Free Software (Licenses):
  - Freedom 0 the freedom to use the work,

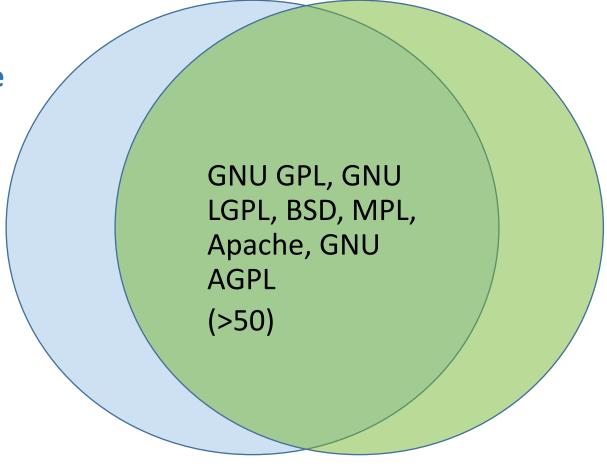


- Freedom 1 the freedom to study the work,
- Freedom 2 the freedom to copy and share the work with others,
- Freedom 3 the freedom to modify the work, and the freedom to distribute modified and therefore derivative works.
- Open Source Software (Licenses):
  - 10 criteria, including the right of distribution, the right of creating derivates, etc.



# Free Software Licenses

List of approved licenses: https://www.gnu.org/licenses/license-list.html



# Open Source Software Licenses

List of approved licenses: https://opensource.org/licenses/alphabetical

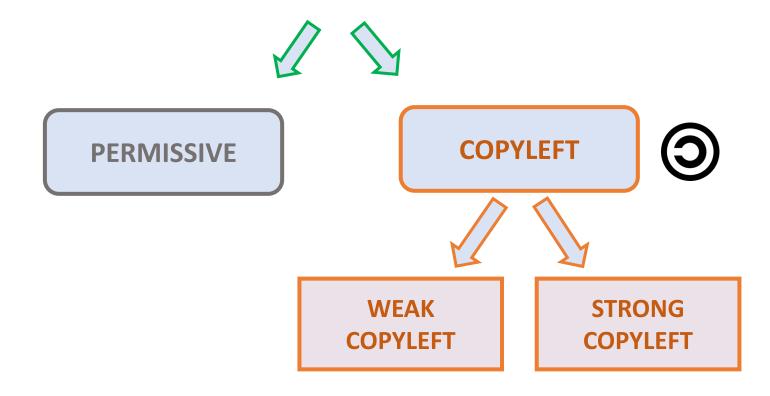


Content of FOSS Licenses:



- The Licensor grants
  - Access to the Source Code of the Program
  - The Right to **run** the Code
  - The Right to **modify** the Code
  - The Right to **distribute** the verbatim and **changed** Copies of the Code
  - Without claiming license fees for the granted rights (= royalties free)







# Permissive vs. Copyleft Licenses

**Obligations** to license **modified** FOSS-Code when distributing the modified Code:

- NONE (permissive FOSS Licenses)
- → free in your choice on how to license

- SOME (copyleft FOSS Licenses)
- → Distribution of modified FOSS-Code only under the same or a compatible license



# **Weak vs. Strong Copyleft Licenses**



# Weak copyleft

- > copyleft **only** on the original work, the **core code**
- > extensions or composed works can also be proprietary

# Strong copyleft

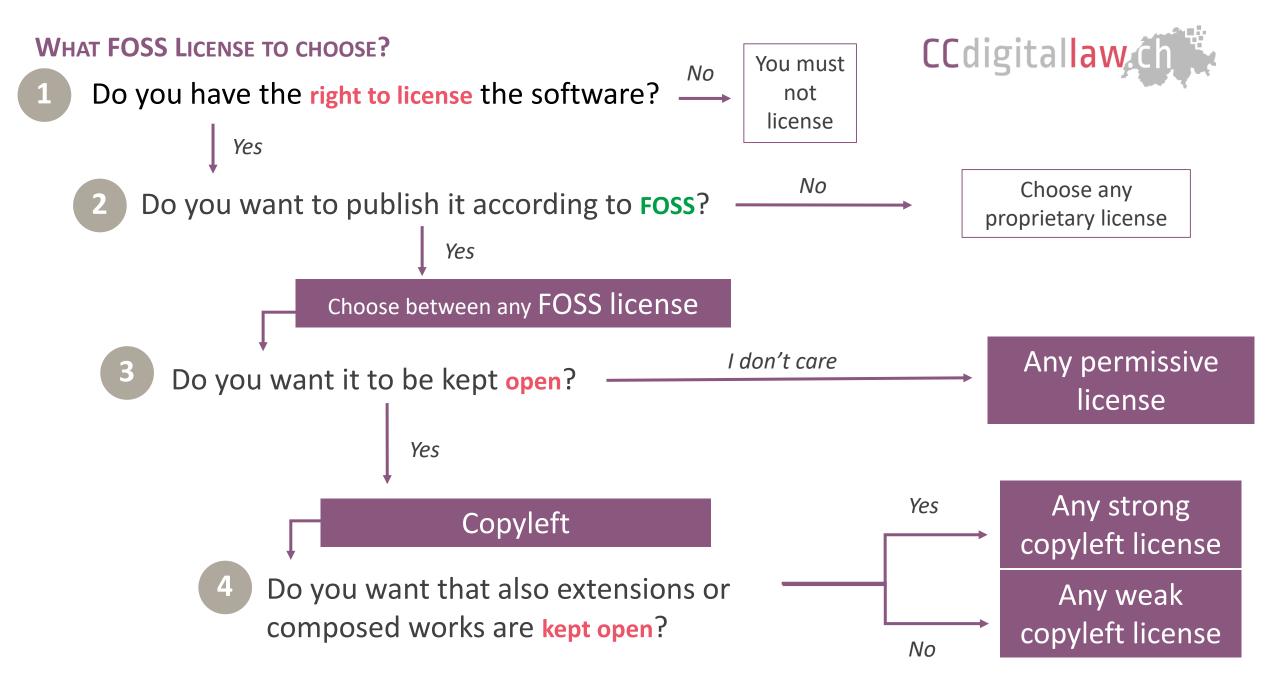
copyleft on whole redistributed work, including derivative and composed works incorporating the work



# **Permissive vs. Copyleft Licenses**

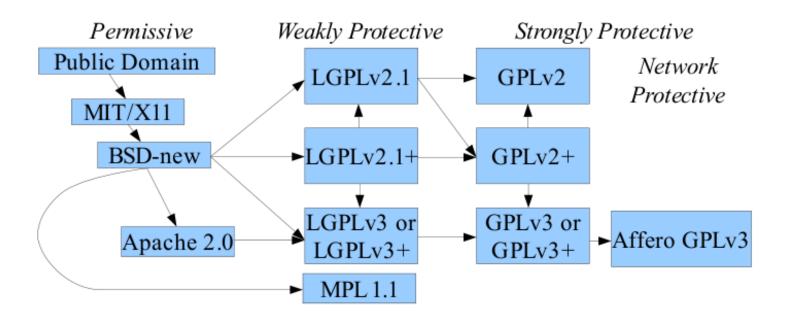
Туре	Characteristic	Licenses	Examples
Permissive	No restrictions on reuse / redistribution Derivatives / Compilations may be closed	BSD, MIT, Apache 2	Android, Apache webserver, Open Stack, PHP, Ruby
Weak copyleft	Only copyleft on the original core code, not on extensions or composed works using the code	LGPL, MPL, CPL	JBoss, Mozilla, LibreOffice, Joomla
Strong copyleft	Copyleft on all the redistributed work, including derivates and composed works	GPL2, GPL3, EUPL	Linux, Asterisk, the GIMP, MySQL, Drupal, MediaWiki

World Intellectual Property Organization (WIPO)



# **COMPATIBILITY OF FOSS LICENSES**





Source: <a href="https://www.dwheeler.com/essays/floss-license-slide.html">https://www.dwheeler.com/essays/floss-license-slide.html</a>

**Author**: David A. Wheeler, **Date**: 27 September 2007

**License**: Creative Commons "Attribution-Share Alike 3.0 License" (https://creativecommons.org/licenses/by-sa/3.0/deed.en); the

GNU Free Documentation License; or the GNU GPL (version 2 or later)



# Privacy and Personal data

# **PRIVACY AND PERSONAL DATA**



# **EU legal acts**

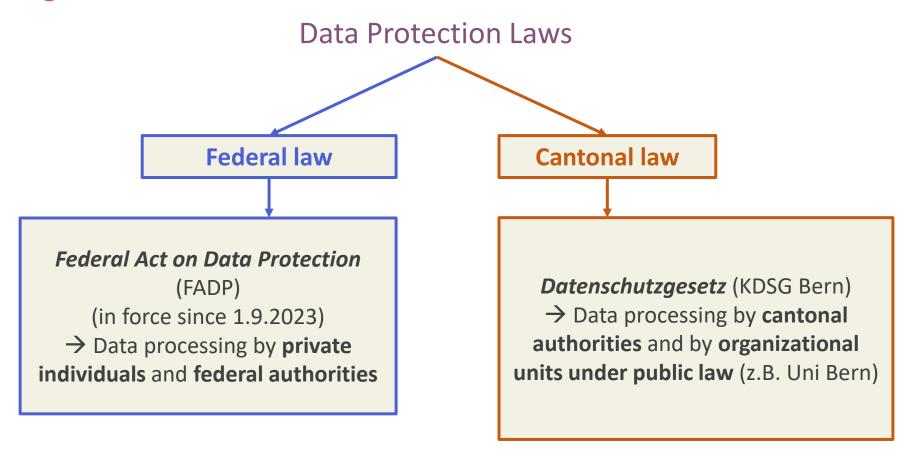
# → European General Data Protection Regulation (GDPR) In force since 28.5.2018

- ➤ Has a direct impact on the member states
- > Sometimes applies also in Switzerland (extraterritoriality principle)

# PRIVACY AND PERSONAL DATA



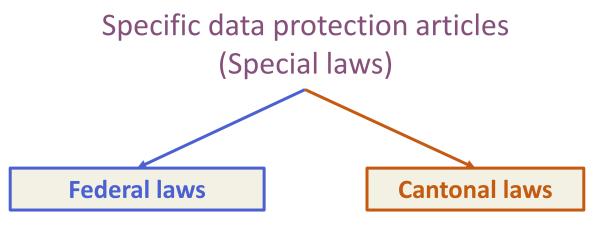
# **Swiss legal acts**



# PRIVACY AND PERSONAL DATA



# **Swiss legal acts**



E.g. Federal Act on Research involving Human Beings HRA, Federal Act on Health Insurance E.g. (Cantonal) *Police Act* 

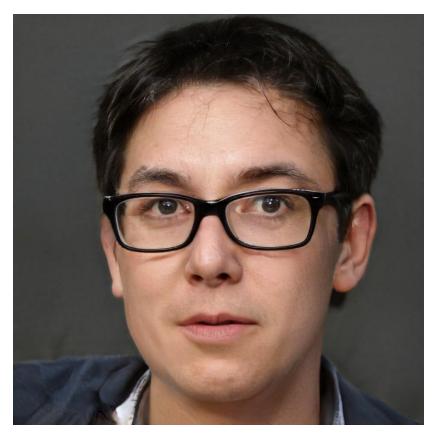


# Personal data

#### PRIVACY AND PERSONAL DATA



## **Swiss legal acts**



Bildquelle: https://thispersondoesnotexist.com/

- Name
- Address
- Place of residence
- Age
- Interesses
- Religion
- Sexuality
- Gender
- Appearance: height, skin colour, ect.
- AVS-Number
- •

#### Personal data



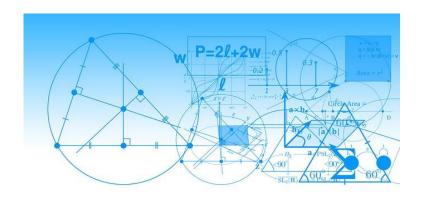
### **Personal Data**

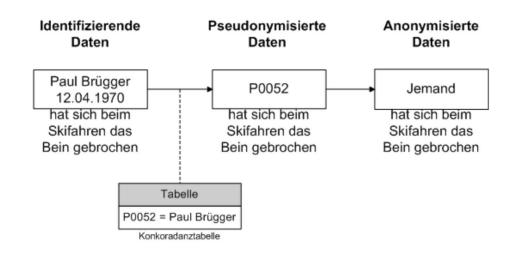
- Common name (e.g. Robert)
- Special name (e.g. X Æ A-XII)
- A pink car
- Article with political opinion
- Photo on the phone
- Contact list on the phone
- Flat advert

#### **NON-PERSONAL DATA**



## Non-personal data





- Facts of nature
- Calculations
- Anonymised data (cf. pseudonymised data!)
- → Data protection laws do NOT apply!



#### **PERSONAL DATA**



# **Personal data**

**Sensitive** personal data

Non-sensitive personal data



## **Personal data**

Non-sensitive personal data

Personal data: any information relating to an identified or identifiable natural person



### **Personal data**

### Sensitive personal data

#### Information about:

- Religious, philosophical, political or trade union-related views or activities;
- Health, the private sphere or affiliation to a race or ethnicity;
- Administrative and criminal proceedings or sanctions;
- Social assistance measures;
- Genetic data;
- Biometric data that uniquely identifies a natural person.



# Processing personal data



## **Processing personal Data**

**any handling** of personal data, irrespective of the means and procedures used, in particular the **collection**, **storage**, keeping, **use**, **modification**, **disclosure**, archiving, deletion or destruction of data;



## **Data protection legislation**

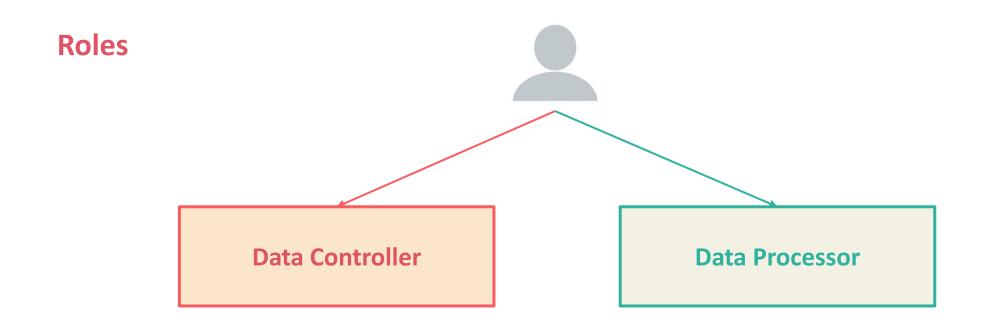
- Protects the privacy of individuals by protecting their data;
- ▶ Protects the data of all living individuals regardless of their relationship to the
   data processor → e.g. employee, student, website visitor, supplier, job applicant;
- Provides for obligations to be imposed on all data processors



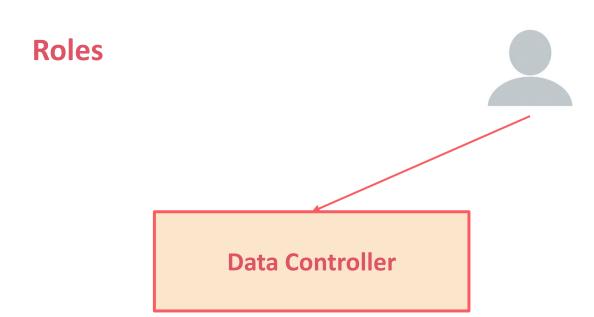
## **Data protection legislation**

- The data must be protected by **organizational** and **security measures** that are appropriate to the risk
- Protection goes beyond maintaining confidentiality





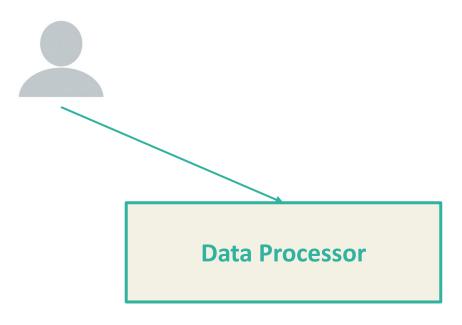




a private person who or federal body which, alone or jointly with others, determines the purpose and the means of processing personal data



### **Roles**



a private person or federal body that processes personal data on behalf of the controller



## **Principles**

- Personal data must be processed lawfully.
  - → There is either a law or consent.
- Processing must be carried out in good faith.
  - → If I provide information about the way in which I intend to use data, I must tell the truth.
- The processing must be proportionate.
  - → I only collect the data that I need for the respective purpose.



## **Principles**

- Personal data may only be processed for a specific purpose.
  - → I can only use the data for the purpose for which I collected it.
- The data processor must be transparent.
  - → Information obligation = privacy policy
- If the data processor processes data, they must take all necessary security measures...
  - → ...to prevent data from being lost or someone breaking into the system and stealing it.



## **Principles**

Personal data must be processed lawfully.

- = Legitimate ground:
  - → **Legal basis** (law)
  - → Consent
  - → Overriding public or private interest
  - → The person has published their personal data themselves and does not object to its use.



# Processing by private persons **Personal data** Sensitive personal data **Profiling Processing** All principles apply **Duty to inform + Consent** always required



# Processing by private persons

Sensitive personal data

**Personal data** 

**Processing** 

**Profiling** 

- All principles apply
- Duty to inform



# Processing by public authority

Sensitive personal data

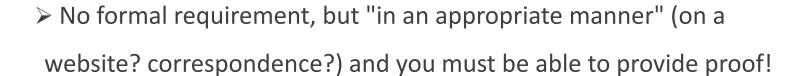
**Personal data** 



- All principles apply
- Law or consent



## **Duty to inform**

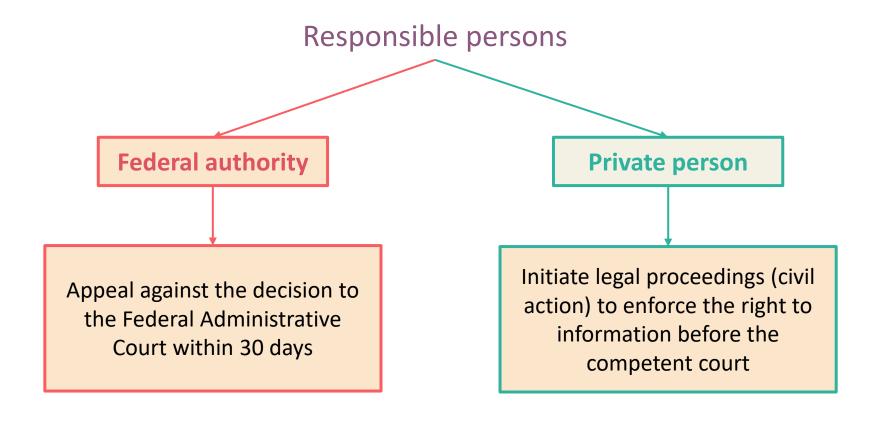




- > At least the following information:
  - the identity of the data controller;
  - the purpose of the data processing;
  - the categories of data recipients (Art. 9 FDPA, e.g. cloud), if data transfer is planned;
  - in the case of transfer abroad: the recipient country.



## **Breach of duty to inform**





# Thank you for your attention!



# More information @ www.ccdigitallaw.ch





Welcome to the Competence Center in Digital Law. We support Swiss Higher Education Institutions (students, academic and administrative staff) in dealing with legal questions related to the digitalization process and the use of new media and technologies.

#### **DMLawTool**

*DMLawTool* guides researchers through the most relevant legal aspects of research data management and proposes possible solution approaches to copyright and data protection issues. It has been developed by the Università della Svizzera italiana (USI) in collaboration with the University of Neuchâtel (UNINE) within the P-5 programme "Scientific information" of swissuniversities. More detailed information about the tool can be found here. To access the tool, use the button below.

DMLawTool

#### **Showcases**







