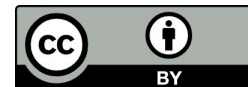


# FAIR & OPEN

---

## TRAINING

Author: Bruna Piereck  
Contributor: Alexander Botzki  
Version: 102025





Cambridge  
Dictionary

: fair



“

What you expect  
What you deserve

”

# FAIR principles

what do you think they mean ?

**F**indable:

**A**ccessible:

**I**nteroperable:

**R**eusable:



# FAIR principles

what do you think they mean ?



**F**indable:

Shared in a findable platform  
Human and Machine findable  
Linked to metadata

**A**ccessible:

**I**nteroperable:

**R**eusable:



# FAIR principles

what do you think they mean ?



**F**indable:



**A**ccessible:

How to access (Download and use)

License or clear policy;

Authentication (when necessary)

**I**nteroperable:

**R**eusable:



# FAIR principles

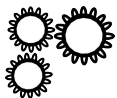
what do you think they mean ?



**F**indable:



**A**ccessible:



**I**nteroperable:

Integrated data

Interoperable in different resources

Ideally general format compatible with many resources.

**R**eusable:



# FAIR principles

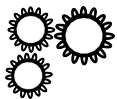
what do you think they mean ?



**F**indable:



**A**ccessible:



**I**nteroperable:



**R**eusable:

Can be used/shared

Can be manipulated/processed

Can be analysed



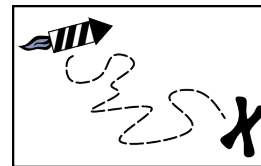
as a whole  
or partially



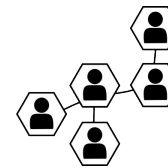
# WHY TO GO FAIR ?

---

Improve access to all kinds of data;  
Training material included



Framework for consistent sharing



Best practice with the community



Recognition of time and effort





# FAIR principles

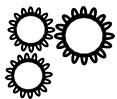
How do you translate for the TRAINING MATERIAL context?



**F**indable:



**A**ccessible:



**I**nteroperable:



**R**eusable:



# FAIR principles

How do you translate for the TRAINING MATERIAL context?

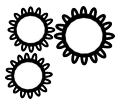


**F**indable:

- Registered training
- Assign Unique persistent ID
- Use schemas for machine findability



**A**ccessible:



**I**nteroperable:



**R**eusable:

# FAIR principles

How do you translate for the TRAINING MATERIAL context?



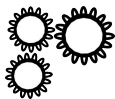
## Findable:

- Registered training
- Assign Unique persistent ID
- Use schemas for machine findability



## Accessible:

- Define access **rules** (license)
- **Annotate** your training material
- Make **metadata** available



## Interoperable:



## Reusable:

# FAIR principles

How do you translate for the TRAINING MATERIAL context?



## Findable:

- Registered training
- Assign Unique persistent ID
- Use schemas for machine findability

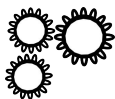


## Accessible:

- Define access rules (license)
- Annotate your training material
- Make metadata available



Bioschemas



## Interoperable:

- Can be used in **different OS**
- Possibility to **edit** and re-use
- **Integrate** in other resources



## Reusable:

# FAIR principles

How do you translate for the TRAINING MATERIAL context?



## Findable:

- Registered training
- Assign Unique persistent ID
- Use schemas for machine findability

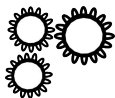


## Accessible:

- Define access rules (license)
- Annotate your training material
- Make metadata available



Bioschemas



## Interoperable:

- Can be used in different OS
- Possibility to edit and re-use
- Integrate in other resources



\* preferable



Per release  
(github, e-learning, etc ...)



## Reusable:

- Can be used/shared
- Can be modified



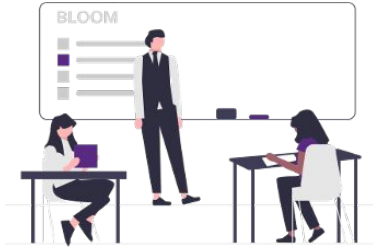
FAI > R



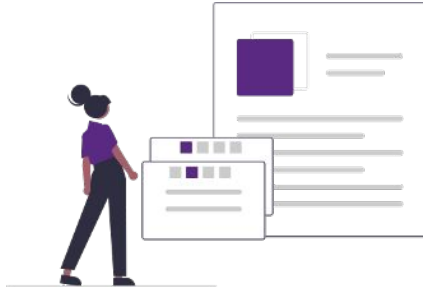
As a whole  
Partially

# It applies to:

- Training events & Conferences

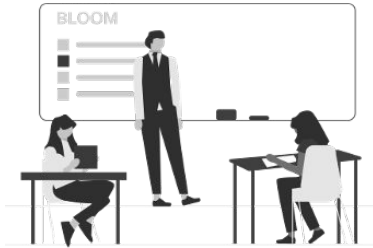


- Training material & Conferences presentations (if shared)



# It applies to:

- Training events & Conferences



- **Training material** & Conferences presentations (if shared)



- **Presentations**
- **Documents**  
(Syllabus, lesson plan)
- **Text**
- **Etc ...**

# 10 RULES FOR FAIR TRAINING



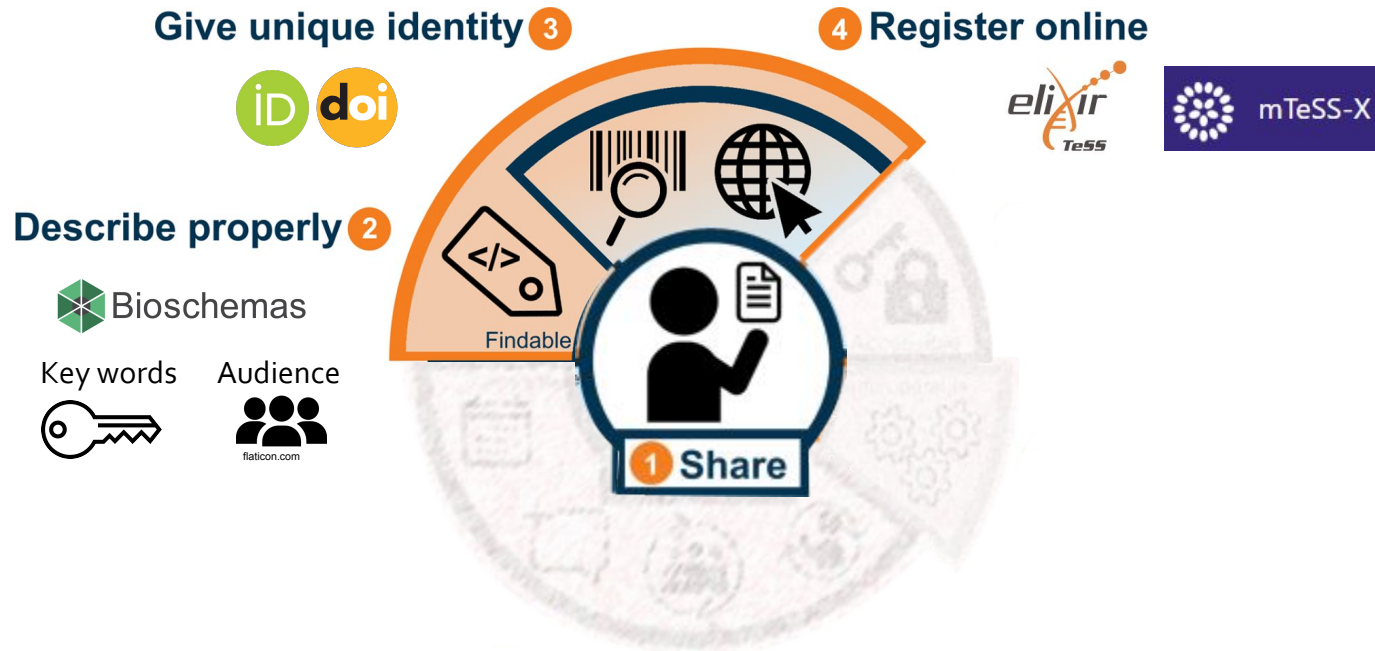
main goal





# HOW DO I SHARE

 Make it findable



# HOW DO I SHARE



Make it findable

2

## Describe properly

- Standard metadata annotation

Key words



Audience



Schemas.org



# HOW DO I SHARE



Make it findable

2

## Describe properly

- Standard metadata annotation

Key words



Audience



Schemas.org



By Three Musketeers - Freepik

3

## Give unique ID

- Unique & Persistent (PID)

**DOI** 

(digital object identifier)

**ORCID** 

(open research and contributor ID)

**PURL**

(persistent uniform resource locator)

# HOW DO I SHARE



Make it findable

2

## Describe properly

- Standard metadata annotation

Key words



Audience



Schemas.org



By Three Musketeers - Freepik

3

## Give unique ID

- Unique & Persistent (PID)

**DOI** 

(digital object identifier)

**ORCID** 

(open research and contributor ID)

**PURL**

(persistent uniform resource locator)

4

## Register online



- Events
- Material
- Learning paths

# HOW DO I SHARE



Make it accessible



**5 Define access rules**



# HOW DO I SHARE



Make it accessible

## Define access rules

- License
- Clear policy



Statement of use

○ No authentication



○ Request Authentication

e.g. mail

○ Payment required

# 10 RULES FOR FAIR TRAINING



Make it interoperable



1 Share

interoperable

6 Use interoperable format



\* preferable

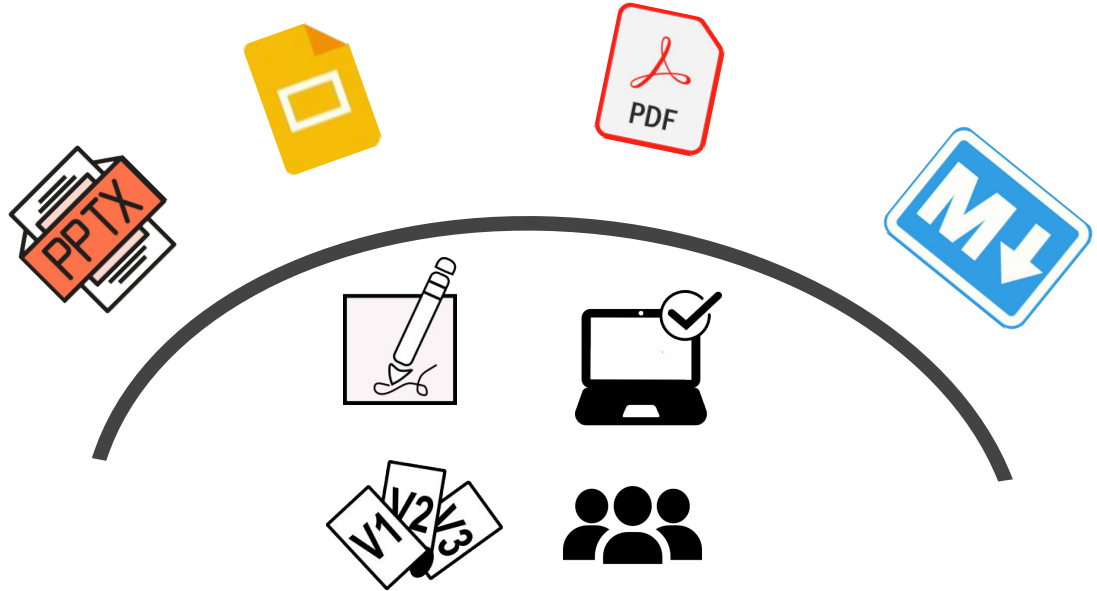
# HOW DO I SHARE



Make it interoperable

## Mind the Format

- Used in different contexts
- (Re)-use
  - Fine-tune
  - Extend
  - Edit
- Text material
- Presentations
- Videos





# HOW DO I SHARE

 Make it Reusable



**Keep materials up-to-date** 10

**Welcome contributions** 9



**Make usable for trainees**



8

**Make (re)usable for trainers** 7



# HOW DO I SHARE



Make it Reusable

7 / 8

Make reusable



License specifications for (re)-use



- Annotations



- Learning outcomes



- Prerequisites

- etc...

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Annotation of:

- Audience
- Level
- Prerequisites
- Key words
- Version



Authors:  
Annotate your slides

- Etc.  
Slides need to be understandable without your presence

# HOW DO I SHARE



Make it Reusable

7 / 8

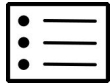
Make reusable



License specifications for (re)-use



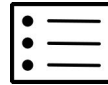
- Annotations



- Learning outcomes

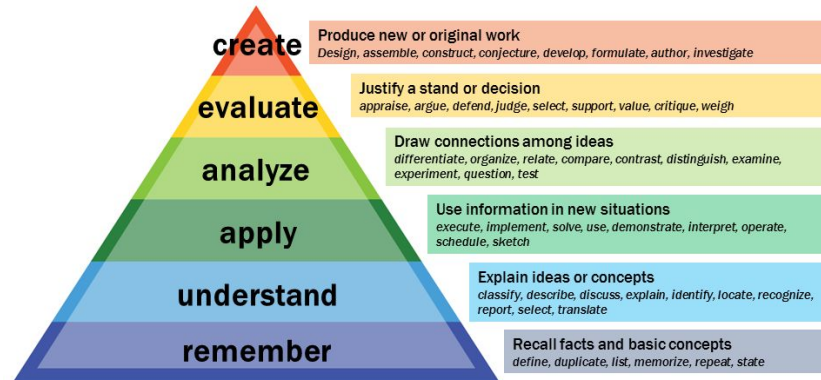
- Prerequisites

- etc...



Include the Learning outcomes

## Bloom's Taxonomy



Vanderbilt University Center for Teaching

# HOW DO I SHARE



Make it Reusable

7 / 8

Make reusable



License specifications for (re)-use



- Annotations



- Learning outcomes



- Prerequisites

- etc...

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9

Welcome contributions



Collaboration file



GitHub as  
collaborative tools



Acknowledgments &  
recognitions

# HOW DO I SHARE



Make it Reusable

7 / 8

Make reusable



License specifications for (re)-use



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- Annotations
- Learning outcomes
- Prerequisites
- etc...

9

Welcome contributions



Collaboration file



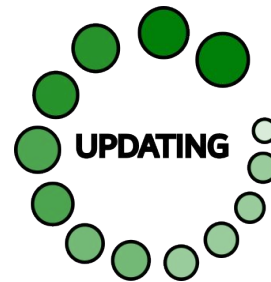
GitHub as  
collaborative tools



Acknowledgments &  
recognitions

10

Keep up to date



- Trends
- Features
- Resources version
- Etc ...

## OPEN data & OPEN training material

---

- Open and transparent access broad public
- Aiming reproducibility and re-use



**OPEN = FAIR**  
**?**



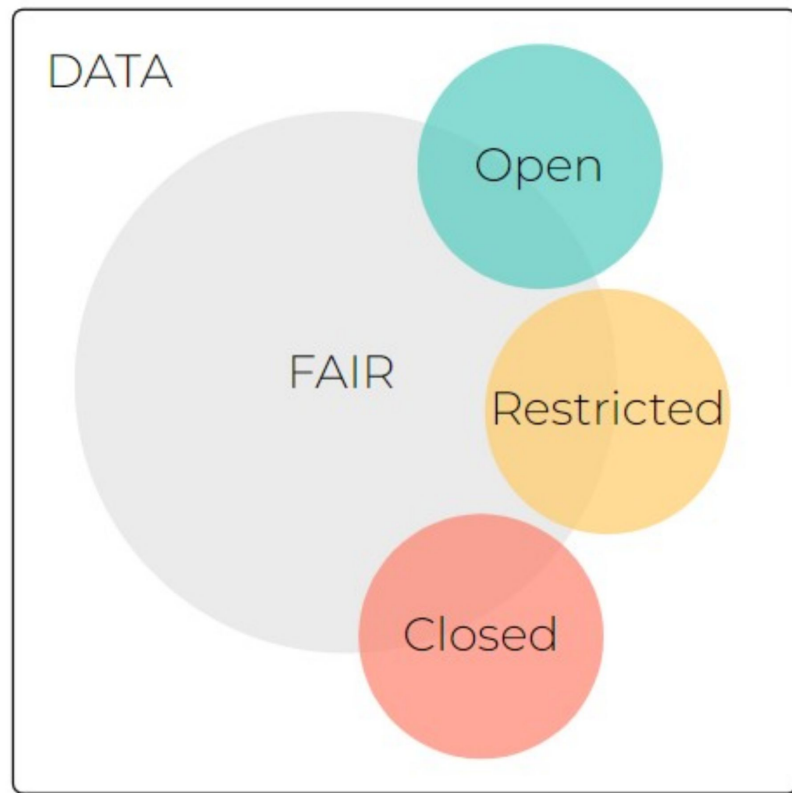
**NO**

---



# NO

---



Findable:



**A**ccessible:

Interoperable:

Reusable:

#### Define access rules

---

- License
- Clear policy



Statement of use

○ No authentication



○ Request Authentication  
e.g. mail

○ Payment required



“ as open as possible and  
as close as necessary. ”

- Author unknown-

# FAIR *by design*: Start your project

## Final goal:

Have one mini-material that is FAIR

Create 3 min training session

## Tasks:

1. Define the Topic and Title ✓
2. Write a syllabus ✓
3. Choose where to host your training ✓
4. Choose the material format and prepare the material ✓
5. Include acknowledgements (people, resources) ✓  
Choose a license ✓
6. Experience FAIR video ✓
7. Annotate metadata ✓
8. Assign unique identifiers ✓
9. Present conclusions \*

# FAIR *by design*: Start your project

## Final goal:

Have one mini-material that is FAIR

Create 3 min training session

## Tasks:

### 9. Present conclusions \*

- Which aspects of the FAIR principles
  - can be observed in your training material
  - Were more easy and difficult to apply
  - Could not be applied and why
  - Any comments you want to add

# LET'S GET STARTED

