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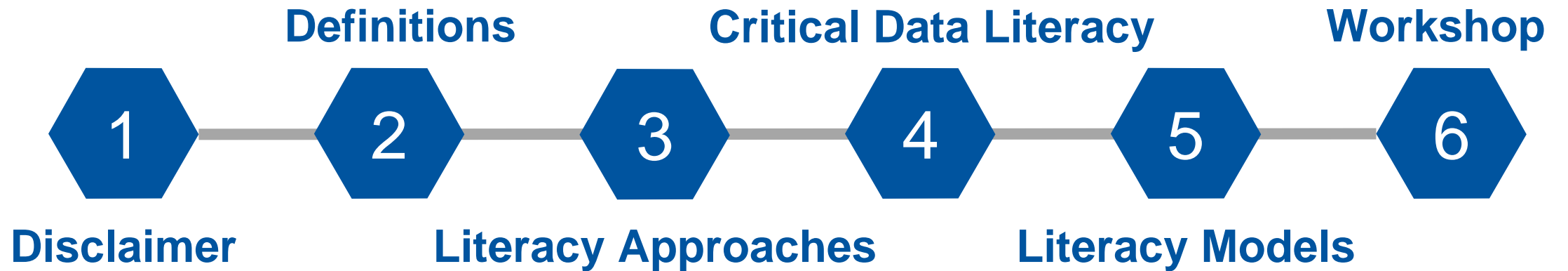
Beyond Data Literacy in Engineering

What Media Literacy has to offer for Critical Data Literacy

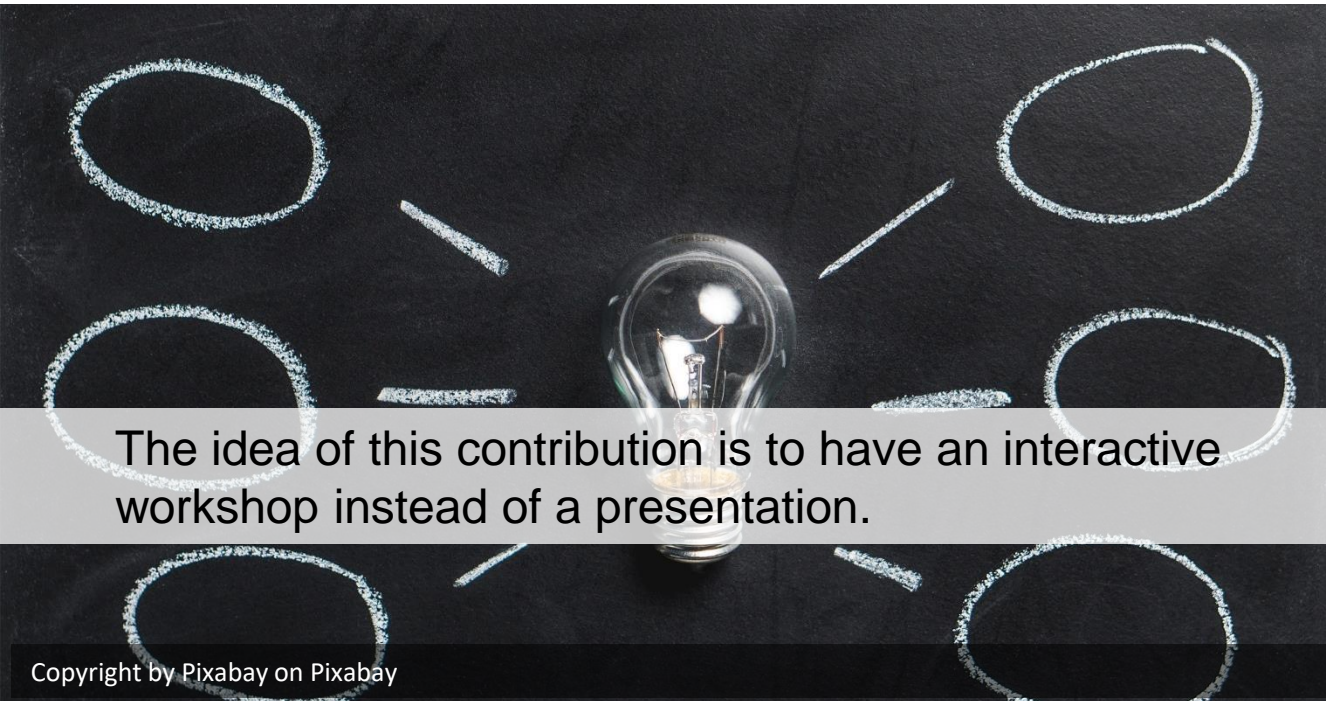
Samira Khodaei, M. Sc.



Workshop Agenda



Disclaimer: This is not a presentation



Thus, this workshop will be documented in two forms:

- 1) You will get a **handout** (PowerPoint+ Miro Board)
- 2) There will be a **paper** that summarized both my input and our exchange.



This workshop is methodically designed to be a **focus group study**. Focus groups are a form of group interview that **generates data through the communication between research participants**. The method is useful for exploring people's knowledge and experiences (Kitzinger 1995;311:299)

I will ensure that the study follows the **ethical guideline of scientific integrity**. Therefore, the individual contribution will be anonymized. However, we still want to acknowledge your contribution.

We will **anonymize the input from the individuals**, but you will be mentioned and **thanked as contributors in form an acknowledgement** in the end of the paper

Informed Consent:

If you do wish to be mentioned in this form, please let me know by telling me your name in the chat.

*You can also revoke your consent at any time.





Literacy

The term literacy is a medium related practice (Campbell, Lacković and Olteanu 2021, 3) and reflects ‘the power and authority to access, interpret, and produce printed texts’ (Leaning 2017, 40).

However

Literacy is not a state one reaches, but a **continuum** in which you shift individually depending on the culture and context (Potter 2021 21)

The **aim of (media) literacy** is

- **to make** people **aware** of this continuum
- **to enable** a person to recognize the current literacy level
- **to provide** the ability to actively change one’s state (agency)





Data Literacy is the **cluster** all efficient behavior (collect, manage, evaluate and apply) and attitudes for the **effective execution of all process steps for value creation** and/or decision making from data (Schüller 2019)

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Classical Media Literacy

- Ability to read and write different forms of media
- Focused on children and developed for schools



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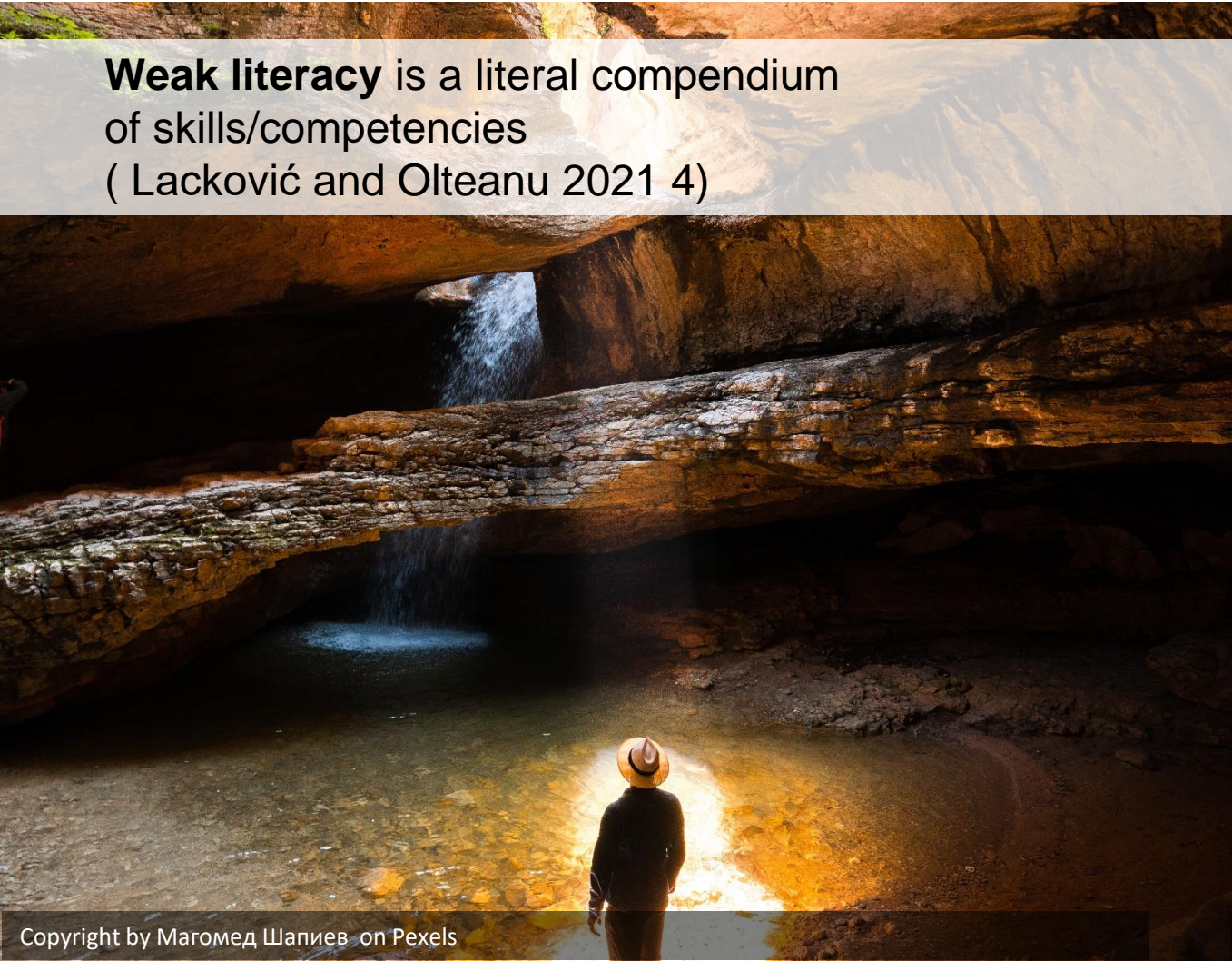
Critical Media Literacy

- Shift to reflective consideration of cultures, contexts and environments
- Developing Agency
- Addressing everyone (Life-Long Learning)

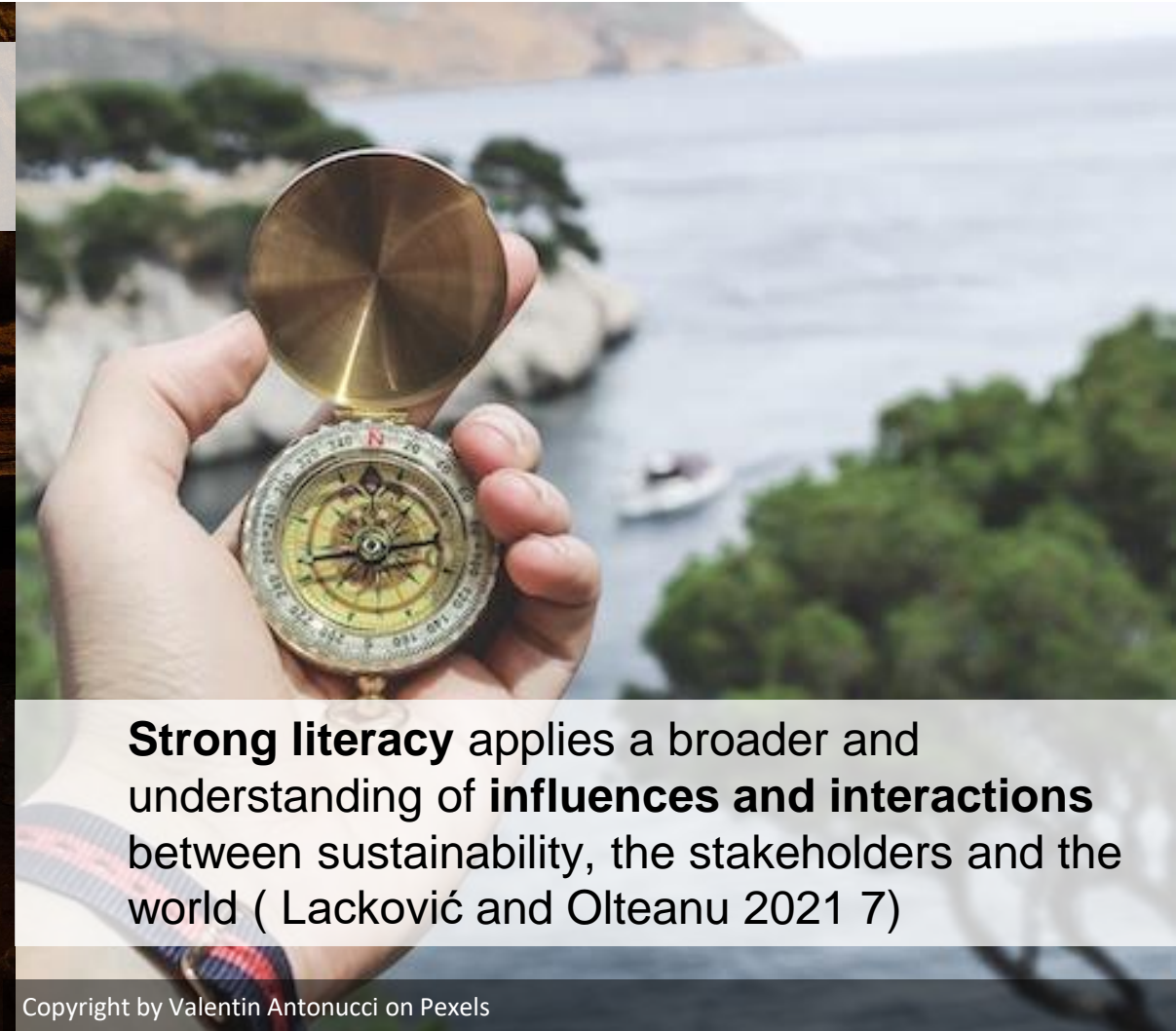


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Weak literacy is a literal compendium of skills/competencies (Lacković and Olteanu 2021 4)



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Strong literacy applies a broader and understanding of **influences and interactions** between sustainability, the stakeholders and the world (Lacković and Olteanu 2021 7)

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TERMINOLOGY CRITIQUE



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Competence (lat. *competentia*) = **ability to do something**, often work related (can require reflection)

Literacy = **ability to understand and evaluate** something (requires reflection)

NARRATIVE CRITIQUE



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Demystification of technological progress, because data based **solutions shape social interactions**, culture and values profoundly
→ engineers need to be trained to become aware of those potential changes.


ACTION-BASED CRITIQUE



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Developing agency based on critical cultural and social reflection of actions.

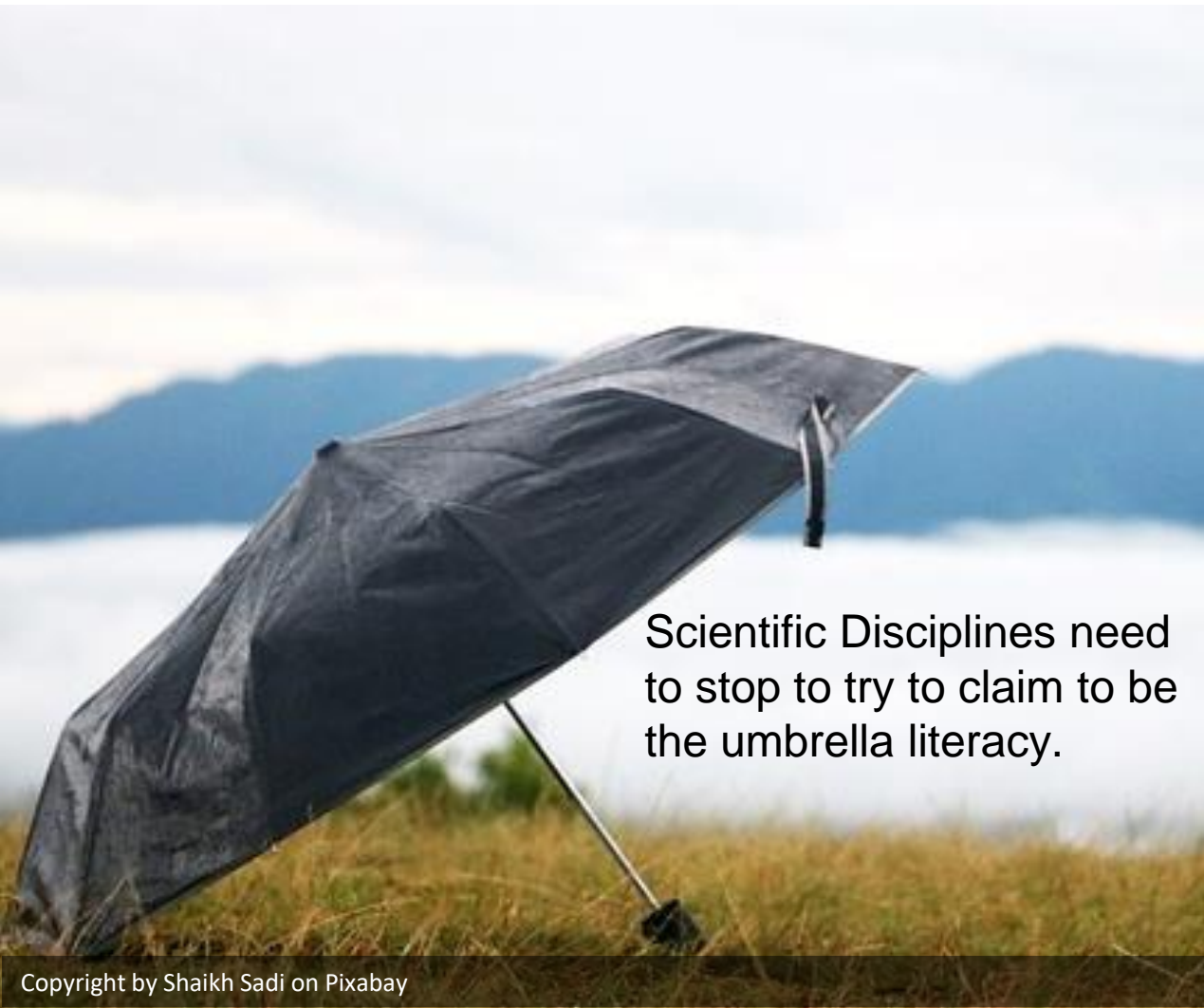
Ethical and critical reflection of own and environments actions.

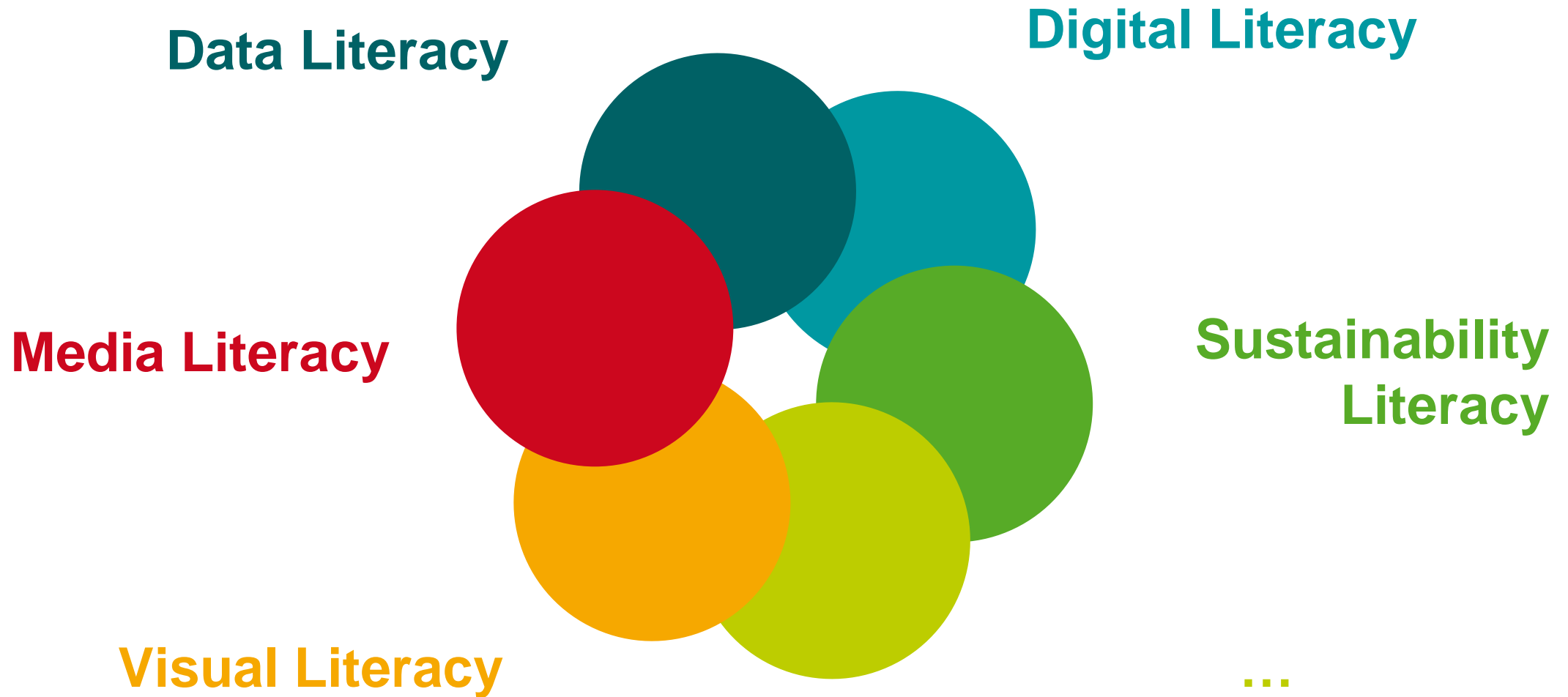


Some scientists see digital literacy as the meta literacy combining information and media literacy
(Bryan Alexander et al. 2017,4)

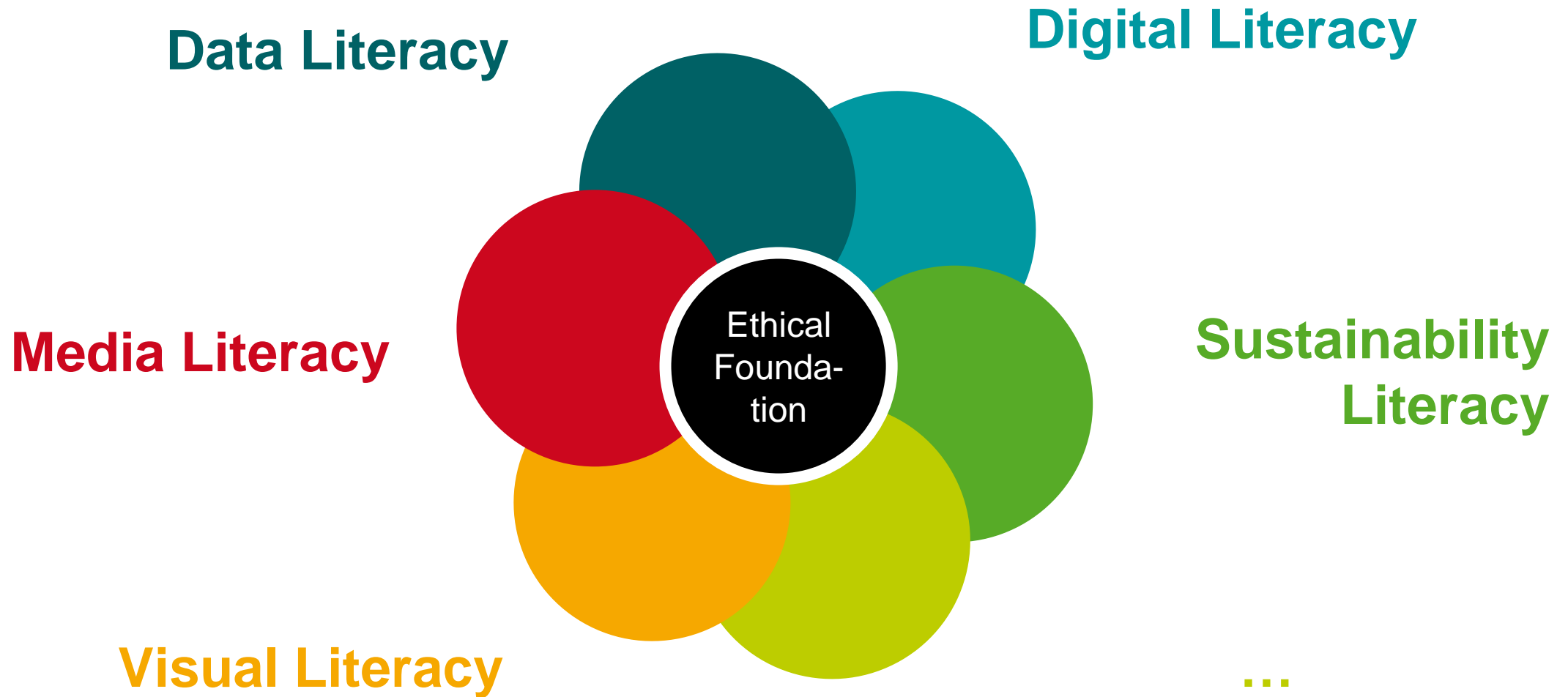
... others see media literacy as the umbrella literacy on data, visual and digital literacy (Leaning 2017, 39).

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***Any other literacy model that might be developed in the future



***Any other literacy model that might be developed in the future



Literature on Literacy

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Thank you for your attention!



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