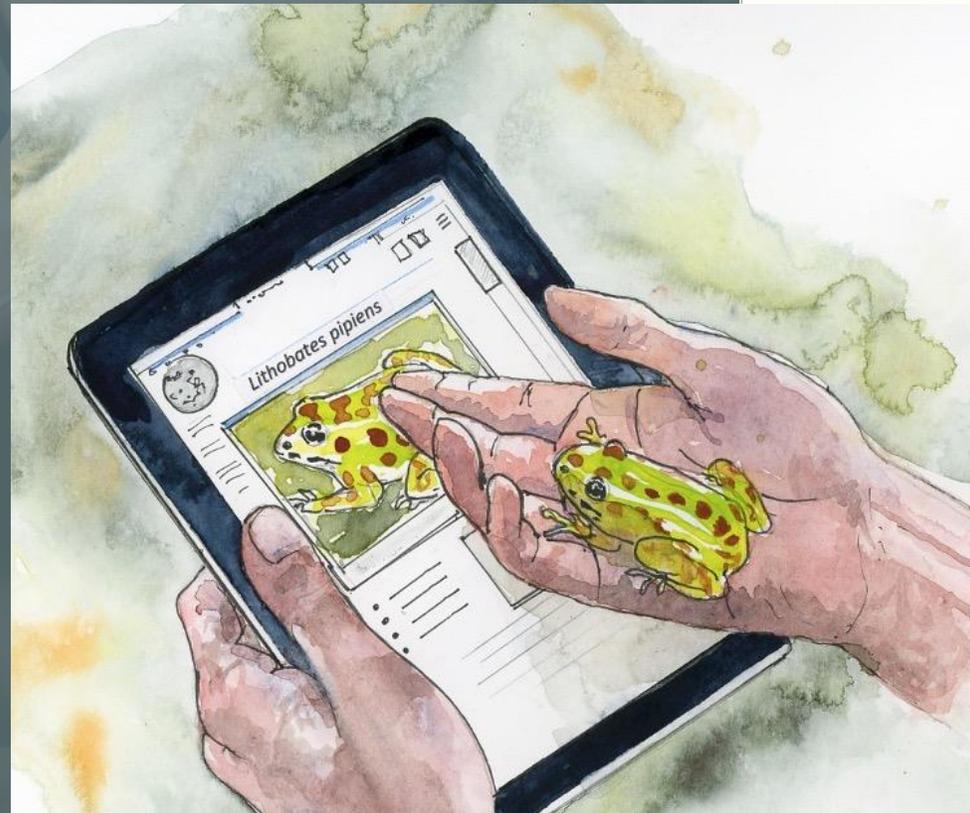


Mobile Technology & Outdoor Education

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PhD Stipendiat, NIH



Context

- Rapid technological advancement – a world marked by interconnection, proximity and changeability.
- Mobile technologies (*and their applications*) have come to play an increasingly influential role in the outdoor domain.
- The use of digital and mobile technologies remains a controversial topic in the field of outdoor recreation - and outdoor education in particular.



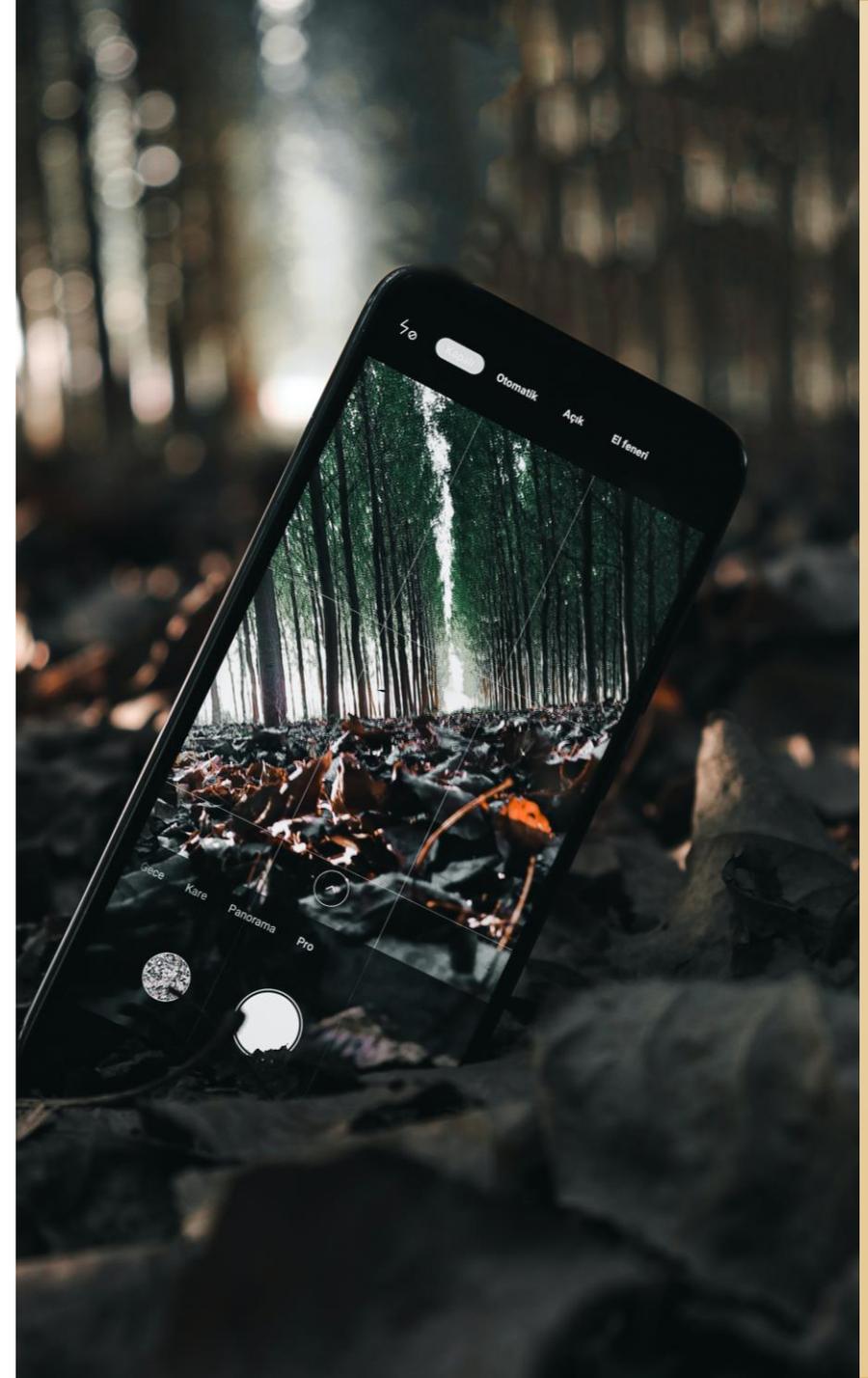
Mobile technology

- *Working definition:* ‘...any electronic, wireless, handheld devices that can serve as a tool for cellular communication, the documentation of information and that provide access to online resources’
- Learning ‘anytime and anywhere’.
 - Mobility
 - Portability
- Covid-19 - Reinforced a shift in how teaching and learning transpire in the 21st century.

(Ozdamli & Cavus, 2011; Weilenmann, 2001)

Mobile Technology and Outdoor Learning

- The 'double-edged sword' (Cuthbertson et al. 2004) .
- Win / loss assessment
- Facilitators of outdoor education are being confronted with the need to make choices about whether or not, and how, to use these tools in their programmes.
- The emergent employment of mobile technologies adds new layers of complexity to the field of outdoor education.



Research paper

What's going on in the field?

A systematized review on the use of mobile technology in outdoor learning programs

→ 33 articles selected for the review

- Peer-reviewed articles
- 2010 – present
- Outdoor learning programs (international)
- Use of mobile technology as pedagogical tools

→ Findings: **Affordances** and **Considerations for implementation**



Benefits

- Increase motivation and engagement of learners
- Increase interest for learning about place
- Access to information
- Visual capture of experiences
- Communication
- Problem-solving skills
- Collaborative learning
- Sharing



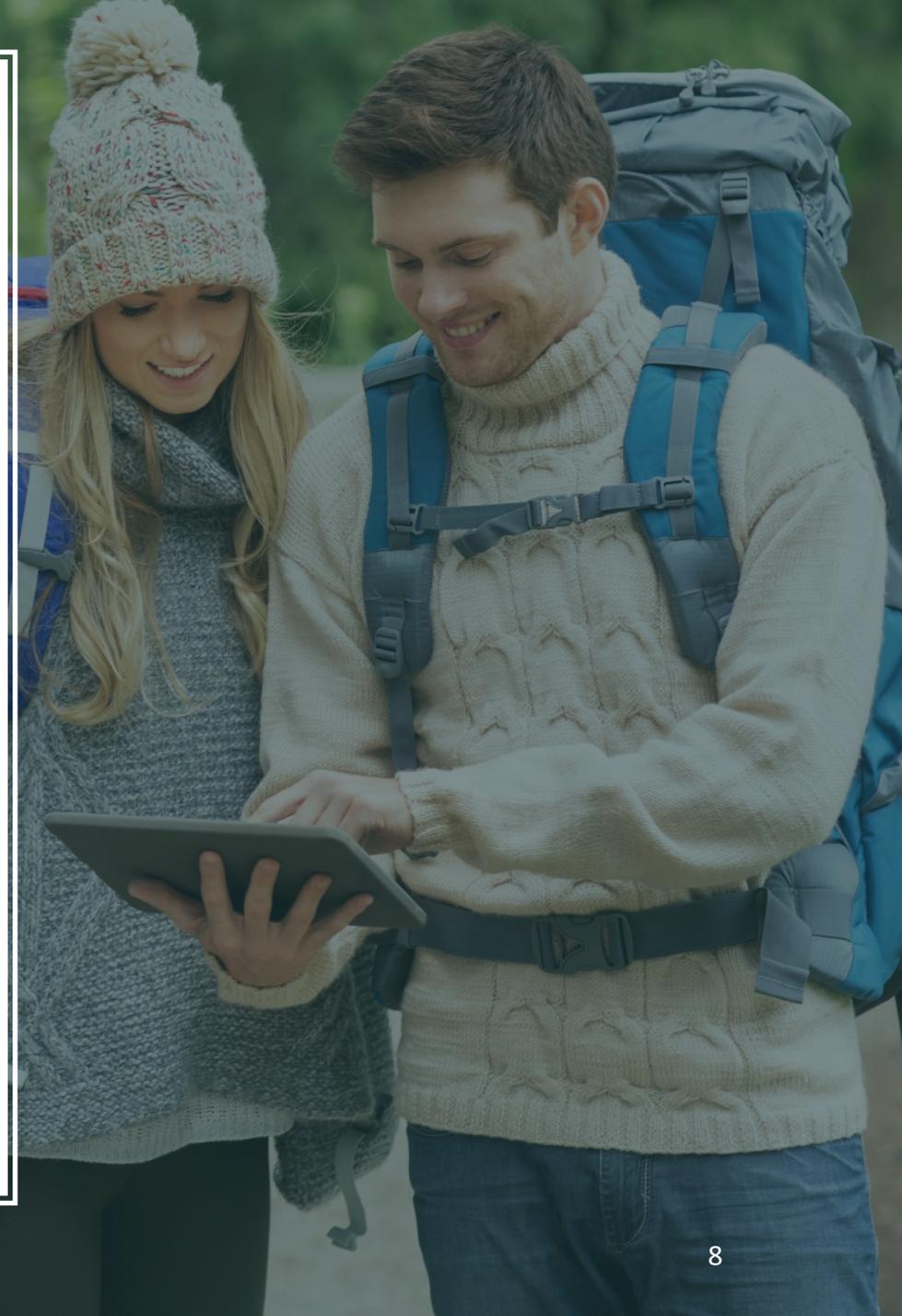
Pitfalls

- Risk of equipment failure and *technology-driven false safety*
 - Decrease development of skills without technology
- Availability and costs
 - *Issues of access*
- Complexity of technology and skills required
- Mismatch usage vs. pedagogical objectives
 - Technology as focus point
- Interference with a holistic, direct experience of nature



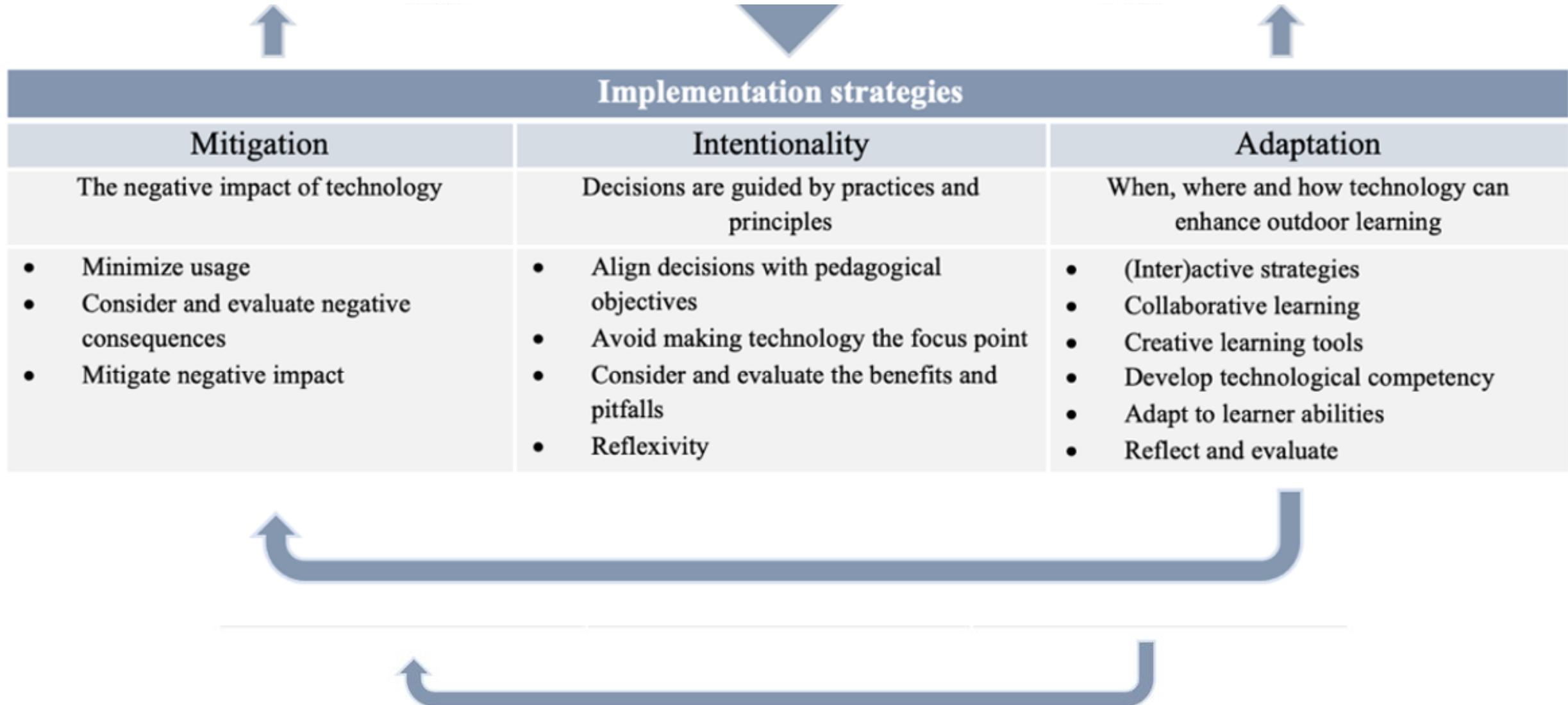
GPS

'But if I go into wilderness with a GPS backup to ensure my rescue if anything life-threatening should occur, have I not surrendered one of the most valuable aspects of going to the wilderness in the first place? Am I subtly less present, less alert to situations of danger and thus less attuned to the intelligence those situations would solicit? Will I become less able to deal with risks elsewhere in life?' (Casey 2012, p. 177).



Considerations for implementation

(Van Kraalingen 2021)



Concluding remarks

Current research:

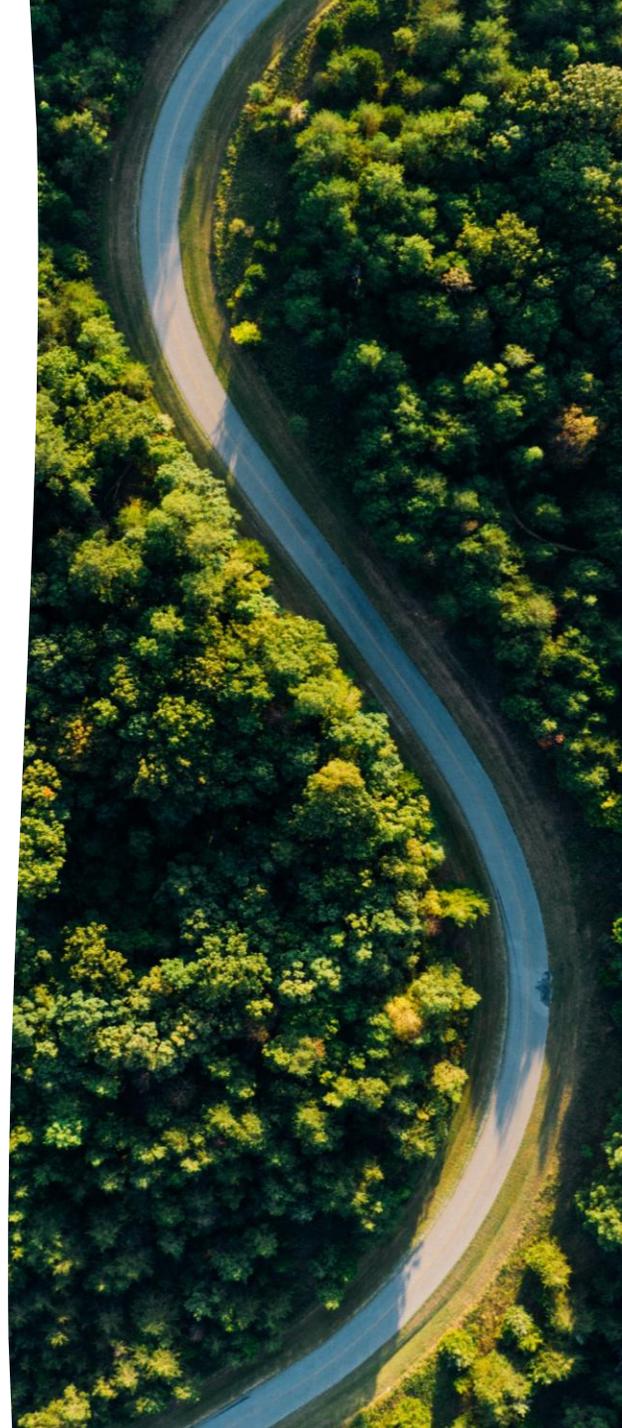
- Strong focus on children (age ≤ 14)
 - How has this influenced the findings of extant research?
- Pro-con discussions
- No consensus on how to successfully manage mobile technology in outdoor education
- Technologies should *not* be simply labelled as 'good' or 'bad';

→ Technologies are transformational in that they *change the quality, field and possibility range of human experience* (Ihde 1995).



The way forward?

- To explore and map the ways in which mobile technologies are employed;
- To gain insight into the impact of mobile technologies simply being present – *constantly connected & always available communications environment*
- To explore successful, creative and practical ways of employing mobile technologies as learning tools;
- What is needed? – Knowledge? Skills? Training? Resources? Access? Osv.
- To better understand the mediating impact of mobile technologies on our experience of nature.
 - Human – Nature → Human – Technology – Nature interface



Today's technological advances have created (and continue to create) new physical and digital spaces that must be accounted for in the outdoor education domain.

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Takk for meg!

Outdoor Studies Forum (OSF), NIH
*Webinar on Digital Technology and
Outdoor Education*

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