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From Digital Natives to Digital Literacy

Anchoring Digital Practices through Learning Design

Erika Smith, PhD

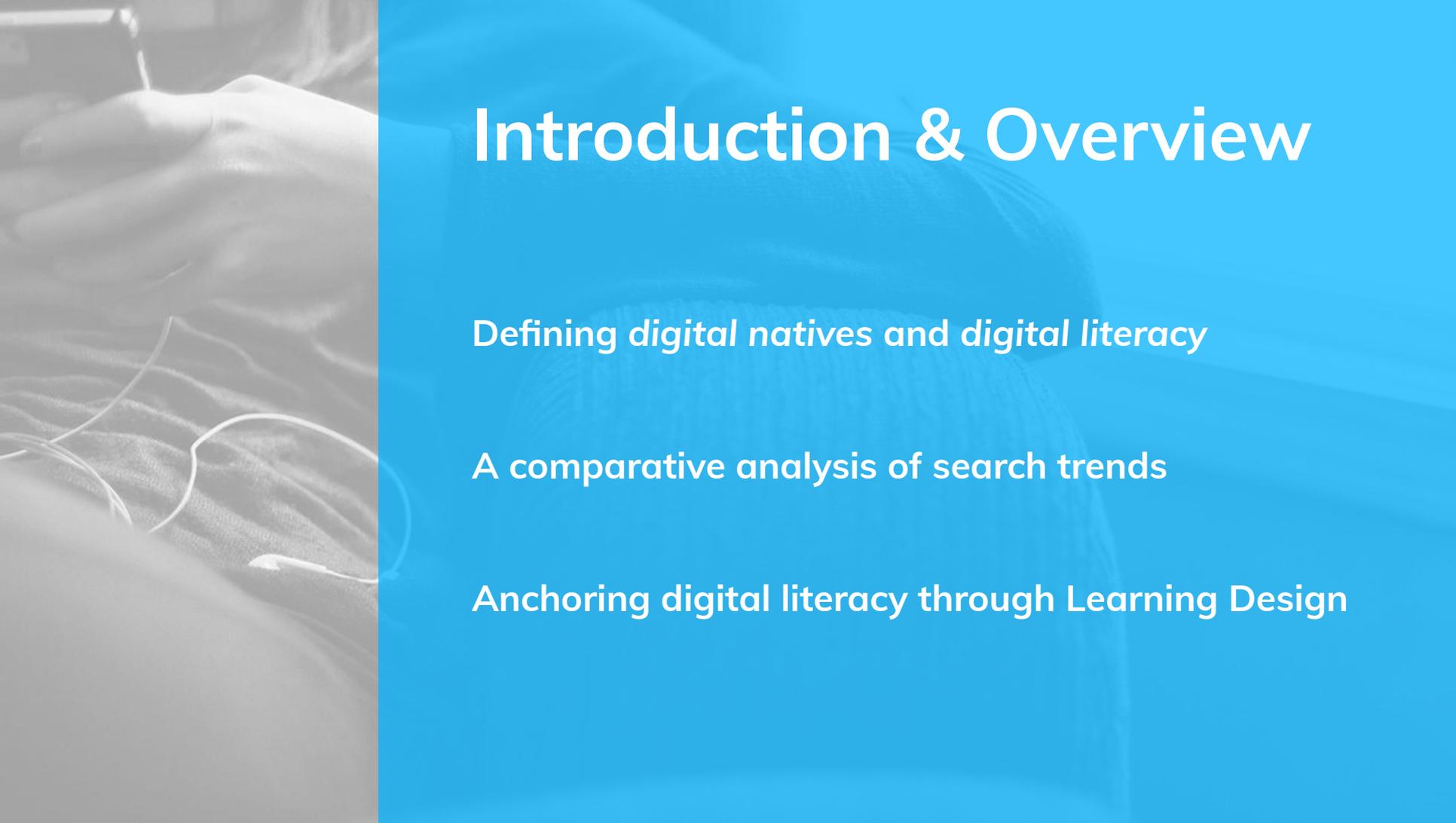
Assistant Professor [@erikasmith](https://twitter.com/erikasmith)
Mount Royal University

Renate Kahlke, PhD

Research Associate
Royal College of Physicians & Surgeons of Canada

Terry Judd, PhD

Senior Lecturer in Medical Education
The University of Melbourne

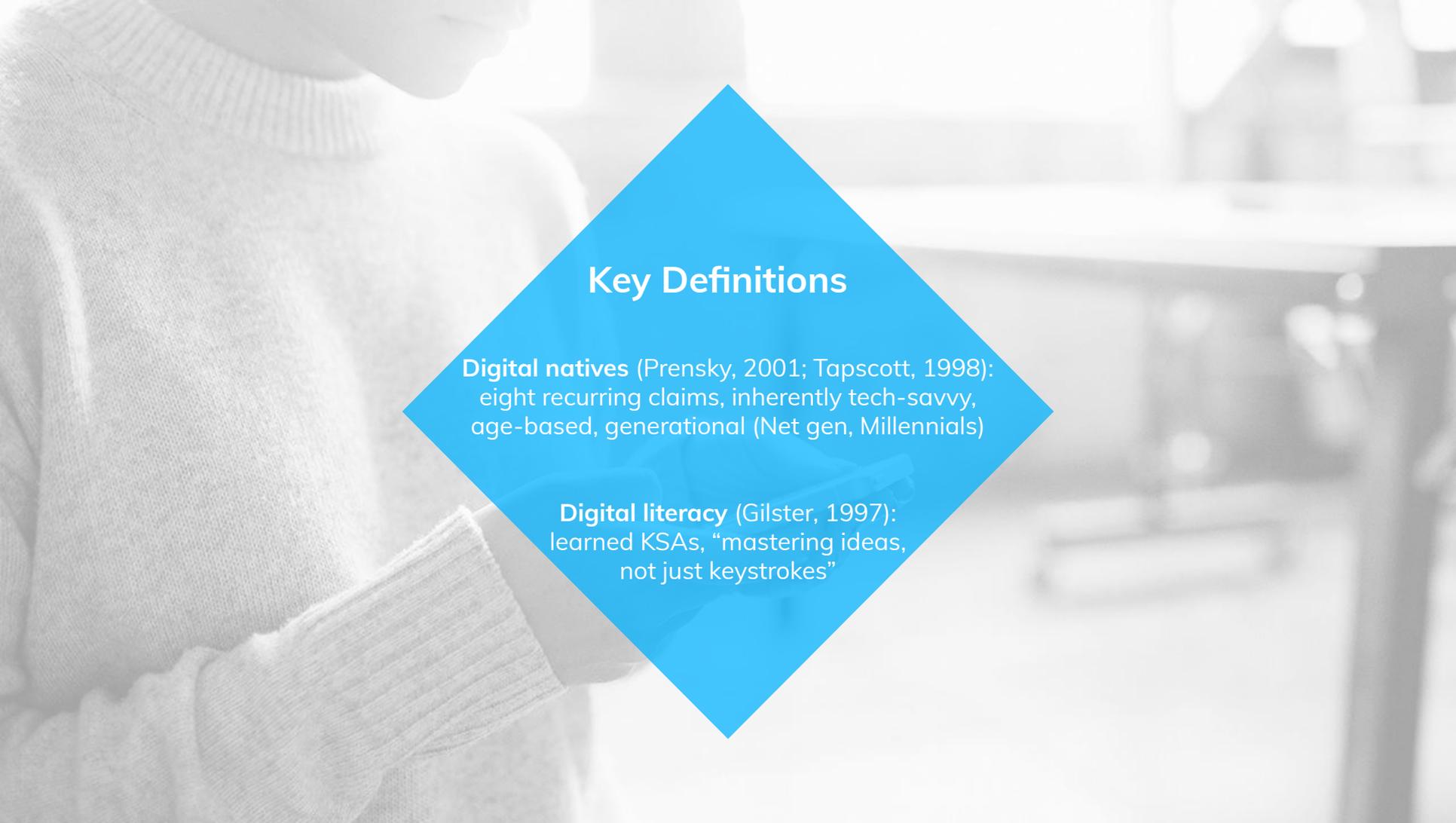


Introduction & Overview

Defining *digital natives* and *digital literacy*

A comparative analysis of search trends

Anchoring digital literacy through Learning Design



Key Definitions

Digital natives (Prensky, 2001; Tapscott, 1998):
eight recurring claims, inherently tech-savvy,
age-based, generational (Net gen, Millennials)

Digital literacy (Gilster, 1997):
learned KSAs, “mastering ideas,
not just keystrokes”



Examining the Evidence

By around 2010-11, the research evidence pointed to problems with *digital native stereotypes*.



Search Trends

What does a comparative analysis with Google Trends reveal?

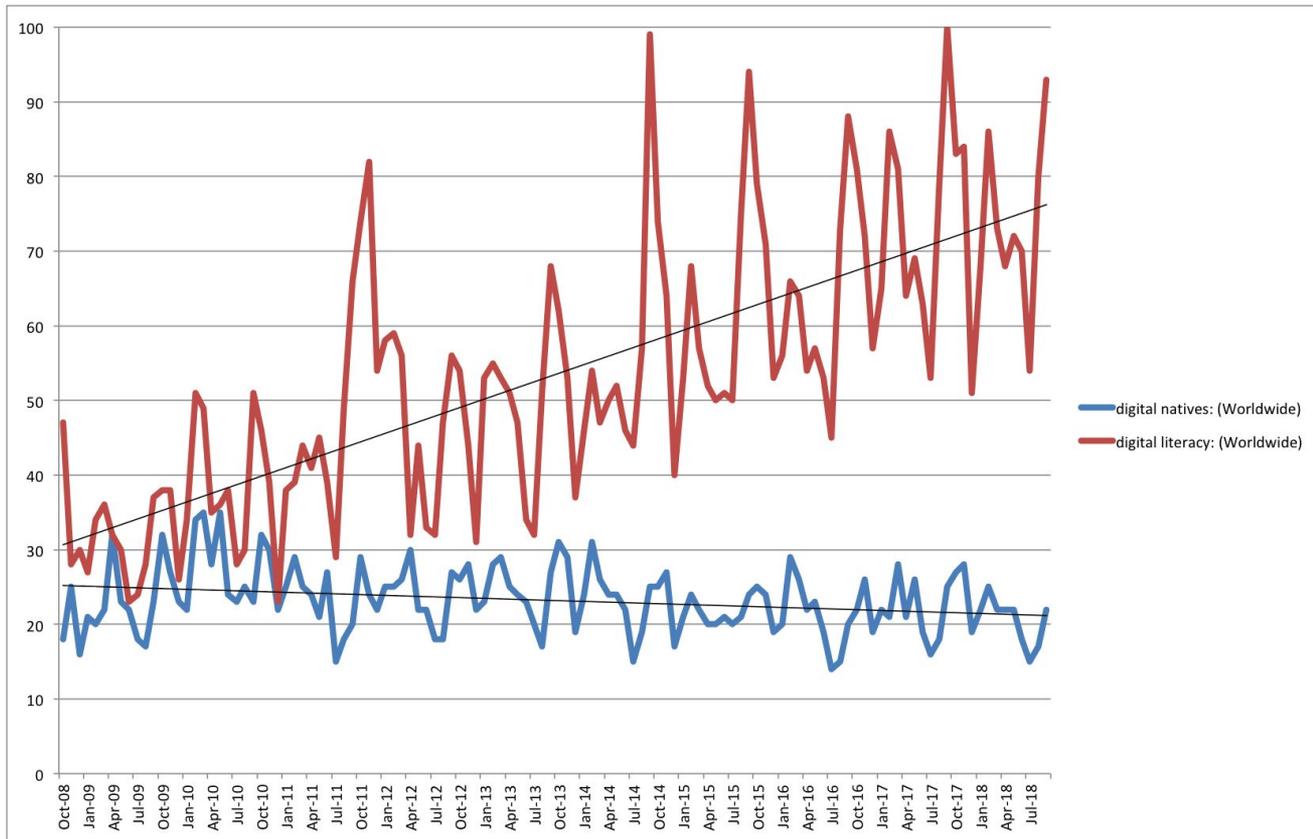


Figure 1: Graph of Google Trends search data over the past 10 years (worldwide).

This graph shows interest related to the search terms “digital natives” (blue) and “digital literacy” (red) since October 2008. According to Google, these “numbers represent search interest relative to the highest point on the chart for the given region and time,” with 100 for peak popularity and 50 indicating a search term is half as popular.



Where to Get Maps Good maps are in general extraordinarily easy to obtain. Even the small-scale maps distributed free by gas stations are generally pretty good. Sectional maps, particularly those government publications, are inexpensive if those government agencies are particularly interested in the area. Furthermore, most suppliers will furnish upon request free detailed lists of exactly what they have available.

Maps of those portions of the United States from the Mississippi River may be secured from the U.S. Geological Survey in Washington, DC. For maps of areas west of the Mississippi contact the U.S. Geological Survey, Federal Center, Denver, Colorado.

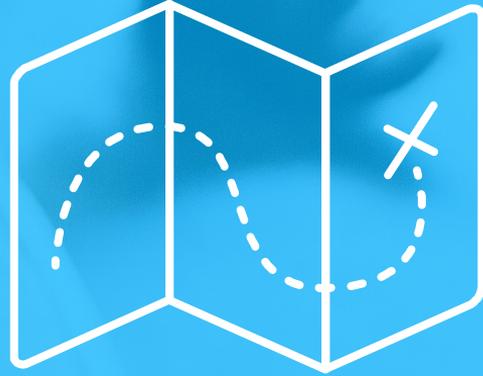
For maps of national forest areas, write the Forest Service, Department of Agriculture, Washington, DC. Maps of the Great Lakes and Lake Survey, Federal Building, Detroit, Michigan. Canadian maps may be obtained from the U.S. and Canadian public offices located in the various consular bureaus in Ottawa, and from the Map Distribution Office, Department of Mines and Technical Surveys, which is also located in Ottawa, Ontario.

For governmental maps of Mexico, write: Dirección de Geografía y Meteorología, Tacubaya, D.F., Mexico. Two private sources for foreign maps are: The National Geographical Society, International Map Company, Washington, DC, and the International Map Company, 90 West Street, New York, NY.

Why colour Maps are preferable Colour maps are by far the most valuable for wilderness use, indicating as they do valleys, canyons, mountains, and other such geographical features in terms of elevations. Consulting such

maps in strange country can save one an exhausting amount of unnecessary climbing, detouring, and then scaling again.

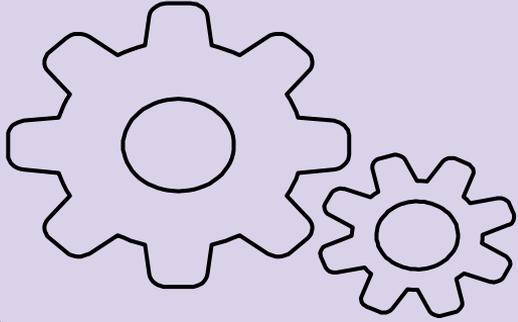
... if possible, is often not advisable. In mountainous terrain, for example, we soon learn that on more than one occasion both time and strength can be conserved by circling several miles along an open ridge instead of striking a small fraction of the distance straight across a deep ravine to the one destination.



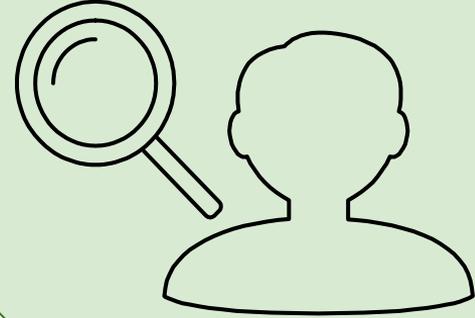
Anchoring Digital Practices through Learning Design

Learning Theories

Behavioural



Cognitive



Sociocultural



Domains of Digital Literacy

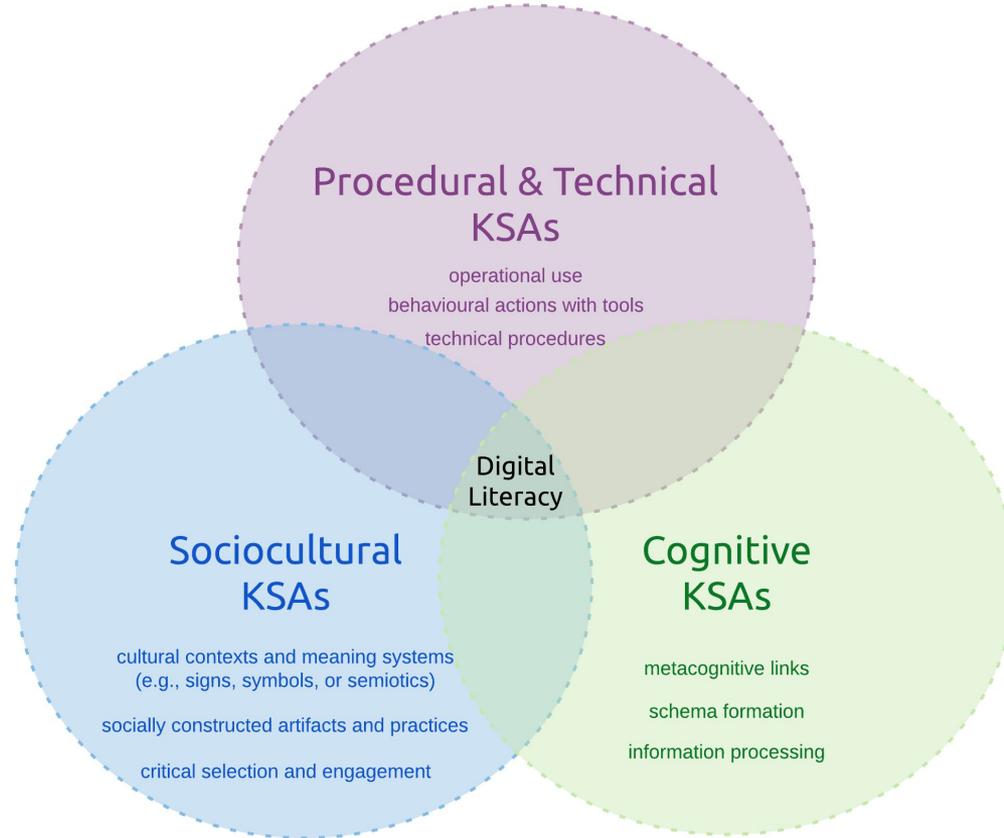
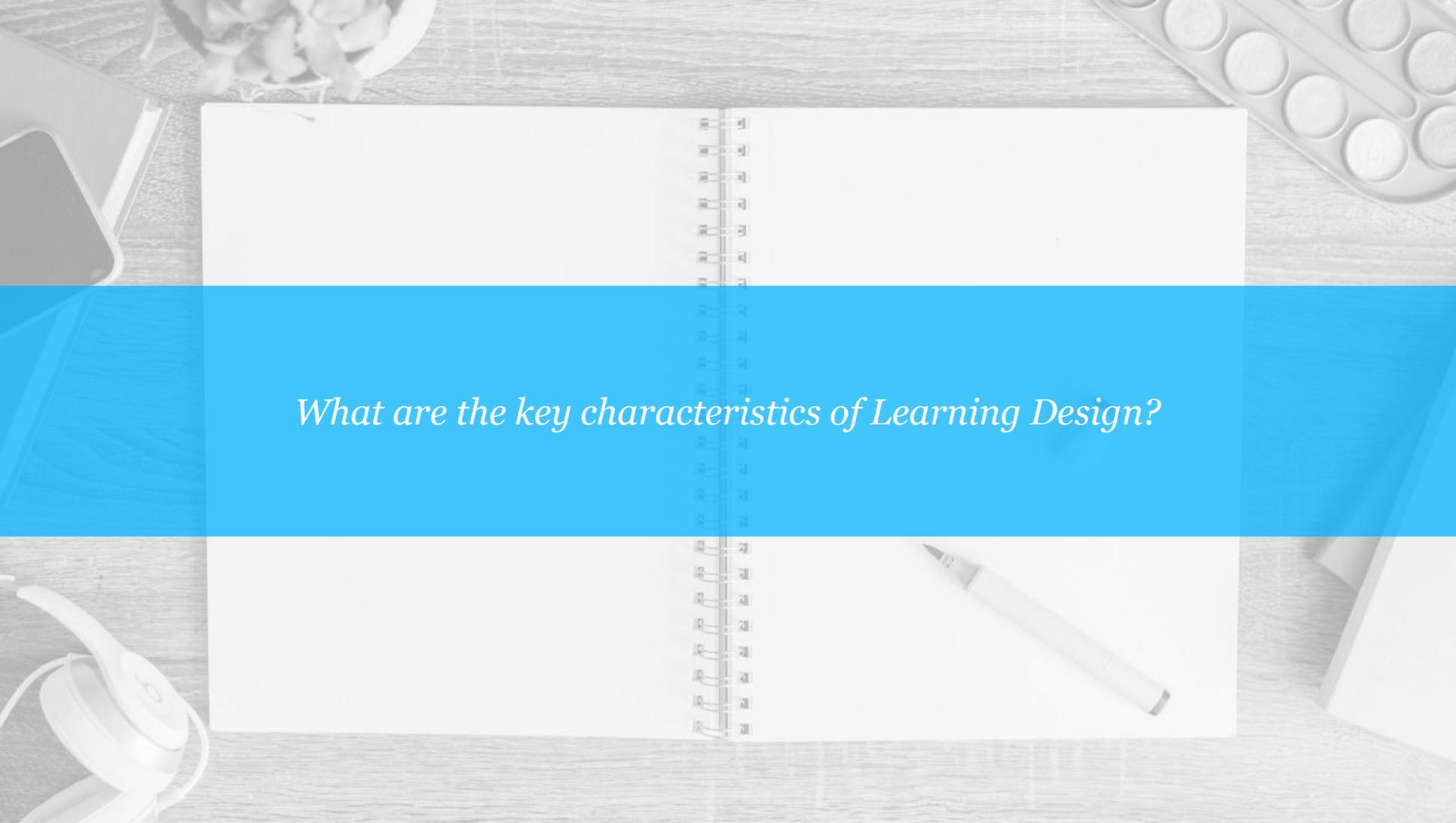


Illustration of digital literacy domains described in [Smith, Kahlke, & Judd, 2018](#)

(See also Baker, 2010; Lankshear & Knobel, 2003; Ng, 2012)

A top-down view of a desk with a spiral notebook, a pen, a water bottle, a keyboard, and a mouse. The notebook is open and has a blue horizontal band across the middle. The text is centered on this band.

What are the key characteristics of Learning Design?

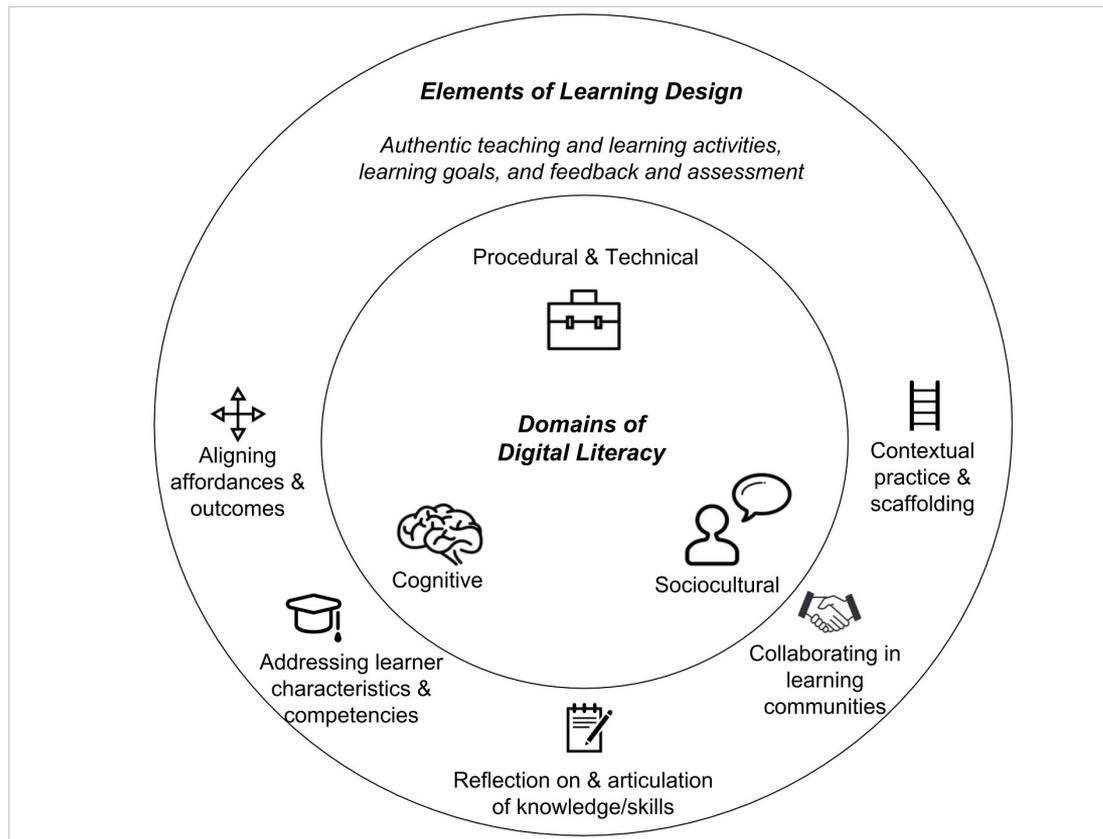


Figure 2: Learning Design elements supporting development of three domains of digital literacy.

We propose five key LD elements to support digital literacies in the procedural and technical, sociocultural, and cognitive domains.



Five Learning Design Elements for DL

- 1) *Aligning technological affordances and learning outcomes.*
- 2) *Addressing learner competencies and characteristics.*
- 3) *Enabling learner reflection on and articulation of their knowledge and skills.*
- 4) *Facilitating collaborative knowledge construction and exchanges in (online) learning communities.*
- 5) *Creating opportunities for contextual practice and scaffolding.*

Discussion:

Other considerations?



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Smith, E. E., Kahlke, R. & Judd, T. (2018). From digital natives to digital literacy: Anchoring digital practices through learning design. In M. Campbell, J. Willems, C. Adachi, D. Blake, I. Doherty, S. Krishnan, S. Macfarlane, L. Ngo, M. O'Donnell, S. Palmer, L. Riddell, I. Story, H. Suri & J. Tai (Eds.), *Open Oceans: Learning without borders. Proceedings ASCILITE 2018 Geelong* (pp. 510-515).

<http://2018conference.ascilite.org/conference-proceedings/>

This Venn diagram on slide 9 illustrates three interconnected domains of digital literacy (procedural and technical, cognitive, and sociocultural). Please cite this diagram as:

Smith, E. E., Kahlke, R. & Judd, T. (2018). Domains of digital literacy. [Diagram].

<https://doi.org/10.6084/m9.figshare.11908425>

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<http://dx.doi.org/10.3402/meo.v15i0.4275>

A grayscale background image showing a hand holding a piece of white chalk, writing on a chalkboard. The word "Konrad" is partially visible on the board. The overall scene is slightly blurred, focusing attention on the text in the foreground.

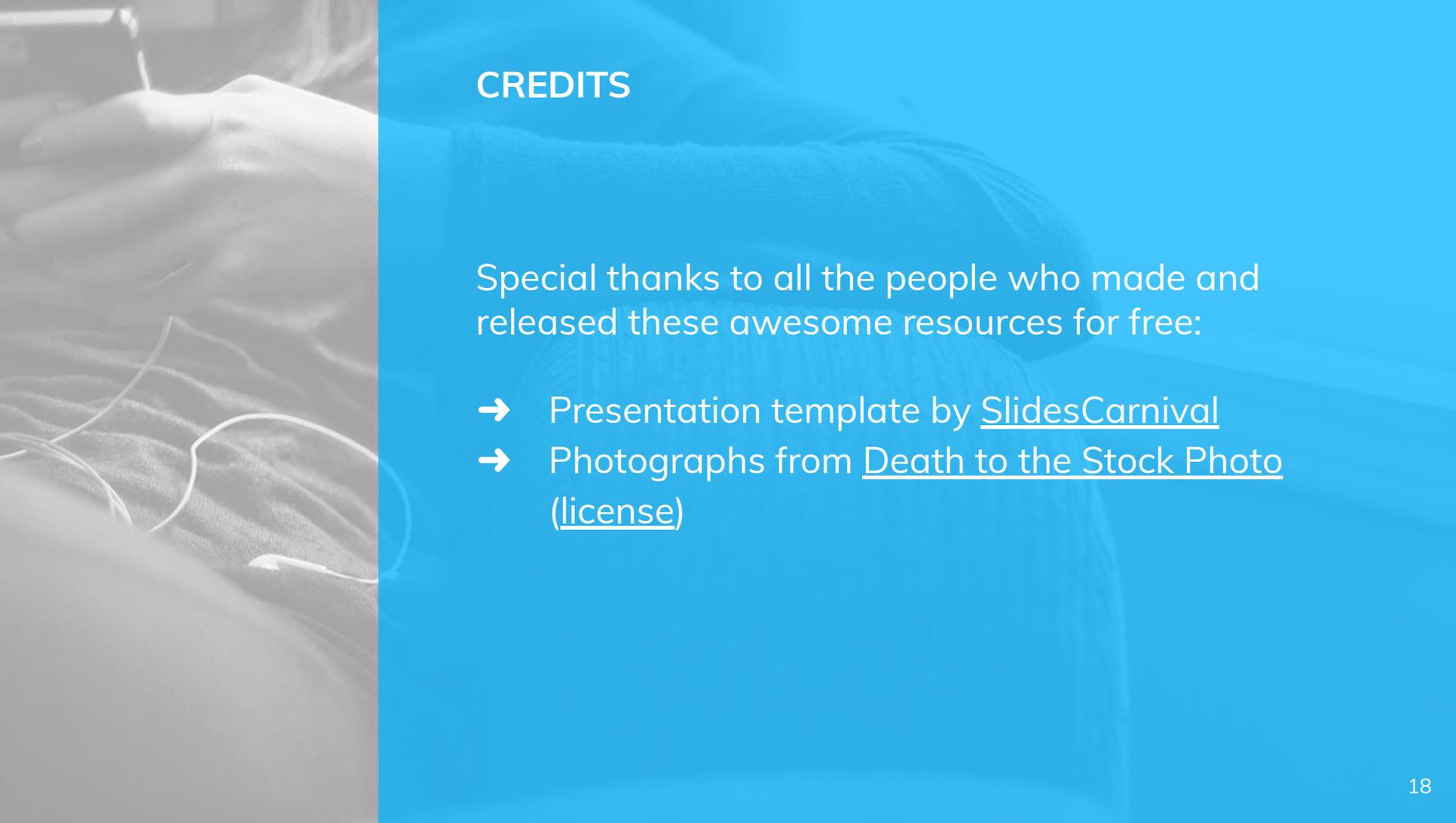
Thanks!

Any questions or comments?

Corresponding author:

Erika Smith, PhD
Academic Development Centre
Mount Royal University

eesmith@mtroyal.ca
[@erikasmith](https://twitter.com/erikasmith)



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