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Digital Pedagogy

Concept, Scope and Policy Perspective

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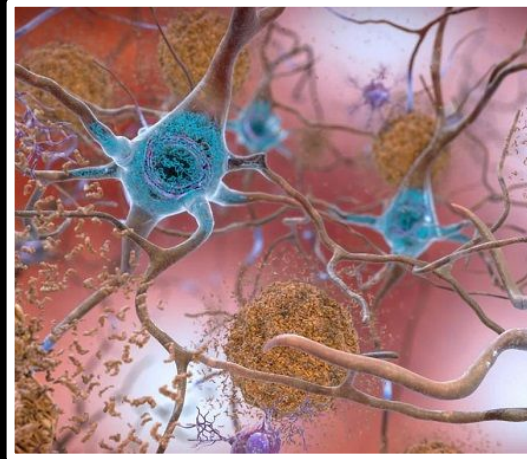
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How does learning happen?



Neuroscience research shows that the human brain is plastic – it has the ability to change due to training throughout life.

The formation of new brain connections and is possible because of a process called ‘neuroplasticity’.



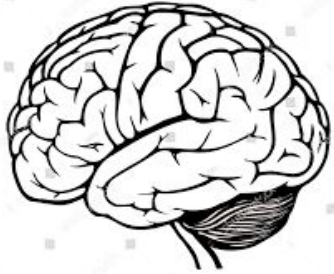
The new connections (neuroplasticity) formed in the brain due to instruction and practice (Draganski et al., 2004)



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What is whole brain learning?



The idea that you use all of the areas of your brain
during learning

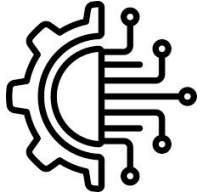




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Technology
meets
Pedagogy



Digital Pedagogy

Digital pedagogy can be described as an innovative partnership of technology with pedagogy.

Digital Pedagogy is NOT the just use of ICT for learning and teaching but the creation of new interactive learning experiences using various technologies that meet the needs of each learner and enable whole-brain learning





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1

**Impact of soil and rainfall
on plants and pests**



2



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Would you **change** your
teaching method?

What **new methods**
would you use in the field?



- Environment, resources and tools **impact pedagogy**



- Technology is an **environment**, not just a tool
- It offers unique possibilities for **personalization, collaboration, creation**
- Digital pedagogy is beyond use of **digital content, digital communication and online classes**
- It is **innovating teaching methods** by utilizing technology with a clear purpose



Typology of Free Web-based Learning Technologies (2020)

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[The original 2019 Typology of Web 2.0 Technologies is available from the Malacuse website at <https://www.malacuse.edu/malacuse/2019/02/26/typology-of-web-20-learning-technologies/>]

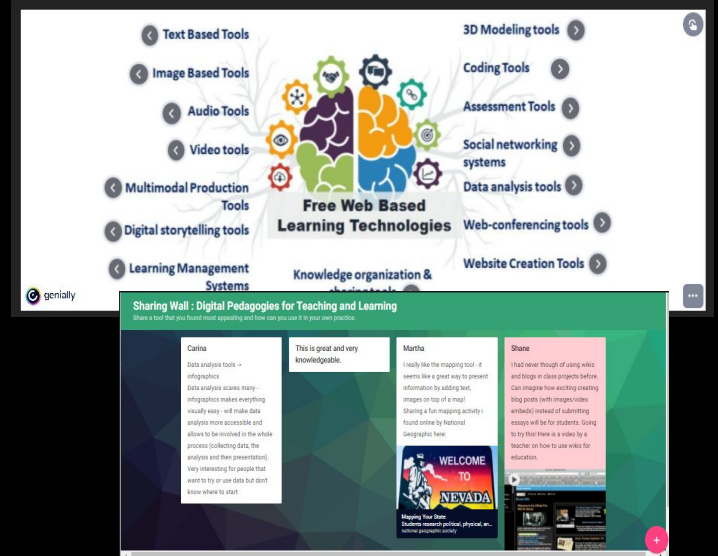
Abstract

The Typology of Free Web-based Learning Technologies (2020) provides educators with a list of 226 technologies arranged into 40 types and 15 clusters that can be used via a browser to promote more productive and interactive learning. The 2020 Typology constitutes an update to the previously published Typology of Web 2.0 Learning Technologies (Bower, 2019), which was also based on a systematic search and categorial analysis (see Bower, 2016, for methodology). This 2020 Typology of Free Web-based Learning Technologies returns to the original analysis to remove tools that are no longer available and add new tools and categories that have entered the online learning ecosystem. Based on these emerging tools, new categorial types and clusters have also been added. Brief descriptions, example tools and pedagogical uses were provided for each category, in order to support ease of conceptualization and application. The analysis makes it possible to gauge trends in online learning technologies over the last five years, for instance the unsustainability of many smaller tools, the marketization of many others, the trend towards more integrated platforms of tools, and greater dominance by larger providers. The paper concludes by inferring future trends in the online learning technology landscape.

Introduction

The term "Web 2.0" was used early this century to characterize a new breed of simple-to-use web-based technologies that enabled users to collectively contribute and share with one another (O'Reilly, 2007). The revolution of Web 2.0 technologies compared to their more static predecessors was that they allowed large numbers of people to contribute typically small amounts of content in a way that was openly accessible and could be flexibly arranged (New & Cheung, 2013). These days it is taken for granted that free online technologies will serve our every interactive purpose, so "Web 2.0" has become a largely historical term.

Digital Resource



Free Web Based Learning Technologies

- Text Based Tools
- Image Based Tools
- Audio Tools
- Video tools
- Multimodal Production Tools
- Digital storytelling tools
- Learning Management Systems
- 3D Modeling tools
- Coding Tools
- Assessment Tools
- Social networking systems
- Data analysis tools
- Web-conferencing tools
- Website Creation Tools

Sharing Wall : Digital Pedagogies for Teaching and Learning

Share a tool that you have used, or something you like and post it to your own profile.

- Caitie**
Data analysis tools -> infographics
Data analysis scores many -> infographics makes everything visually easy - will make data analysis more accessible and allows to be involved in the whole process (collecting data, the analysis and then presentation).
Very interesting for people that aren't as big on data but don't know where to start!
- This is great and very knowledgeable.**
- Martha**
I really like the mapping tool - it seems like a great way to present information by adding text, images on top of it, maps! (Sharing is fun! Mapping activity) found online by National Geographic here
- Shane**
I had never thought of using wikis and blogs in class projects before. Can imagine how exciting creating blog posts (with images/videos/embeds) instead of submitting essays will be for students. Going to try that here in a video by a teacher on how to use wikis for education.

WELCOME TO NEVADA
Happy New Year
Share your newest photos, physical or virtual, anywhere, anytime!

Digital Pedagogy



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Teachers need whole new set of skills and perspective to leverage technology for enhancing their teaching practice.

These skills and perspectives are referred to as Digital Pedagogy Competence



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Policy acknowledges the need for digital pedagogy skills

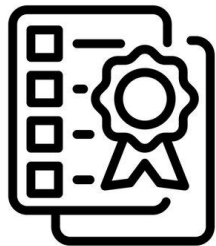


Guideline/ Framework	Priorities
NEP 2020	Teachers need special pedagogical training to use digital technology
Pragyata Guidelines for Digital Education (NCERT, July, 2020)	Acknowledges differential access to technology and ways to personalize the teaching process
Guidelines for Development of eContent for School and Teacher Education (NCERT, 2020)	Mentions Universal Design (UDL) for Learning as a key framework to design learning experiences



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International Frameworks

1. European Framework of the Digital Competence of Educators
(DigCompEdu)
2. UNESCO: ICT Competency Framework for Teachers
3. A Global Framework of Reference on Digital Literacy Skills for Indicator
4.4.2
4. International Society for Technology in Education (ISTE) Standards for
Educators



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DIGITAL PEDAGOGY ENTAILS USING TECHNOLOGY TO...



**Present information such
that it can be perceived
and comprehended
effectively**



**Offer multiple strategies
to engage learners to
motivate them**



**Enable learners to use
the learning environment
and express what they
know**



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Thank You

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