IFLA SET & DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE, UNIVERSITY OF CALCUTTA, INDIA PRESENTS

Digital Libraries and Learning

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Brought to you by
Education and Training Section
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*Central European Standard Time

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Digital Libraries and Learning Overview

- Theory and praxis of DL and e-Learning
- Theoretical framework
- DL and Learning ecosystem
- Perspectives

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Digital library concepts

Digital libraries are sociotechnical systems—networks of technology, information, documents, people, and practices (Ann Bishop et al. 2003)

Digital libraries are moving beyond personal intellectual protheses to become much more participative and reflective of social history. (Marchionini Gary 2012)

An environment bringing together collections, services, and people to support the full cycle of creation, dissemination, discussion, collaboration, use, new authoring, and preservation of data, information, and knowledge (UNESCO 2003)

E-learning concepts

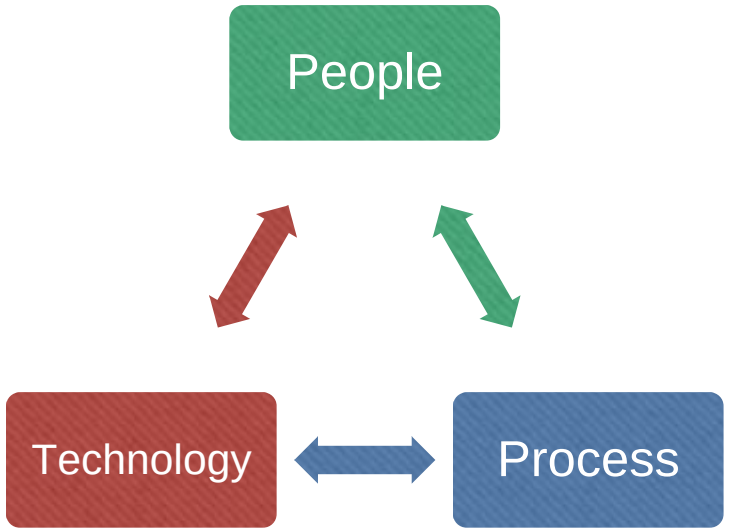
Learning supported by information and communication technologies (ICT). Source: CEDEFOP 2008

Learner uses technology to interact with instructor and other learners and some form of support is given to learners (Mayes 2004)

E-learning inspires individual/community engagement and inclusive learning environments through the use of emerging technologies (Andrews 2011)

Theoretical framework

HCI (Human Computer Interaction) as common framework

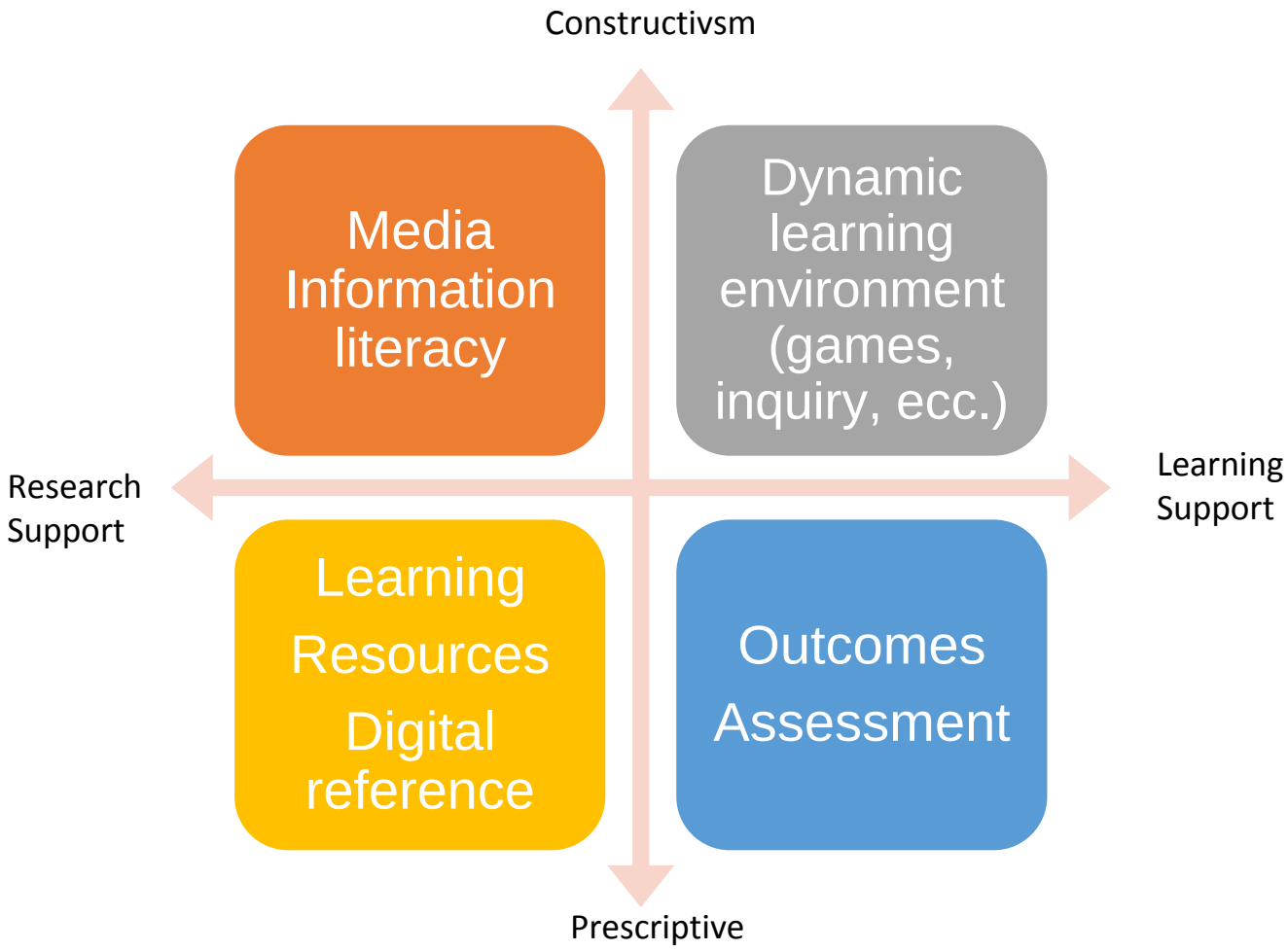


Digital libraries and the learning ecosystem

A global learning environment is:

- student-centred,
- interactive and dynamic,
- enabling group work on real world problems,
- enabling students to determine their own learning routes,
- emphasizing competencies to support lifelong learning

(UNESCO IITE 2003)



Good practice: British Library

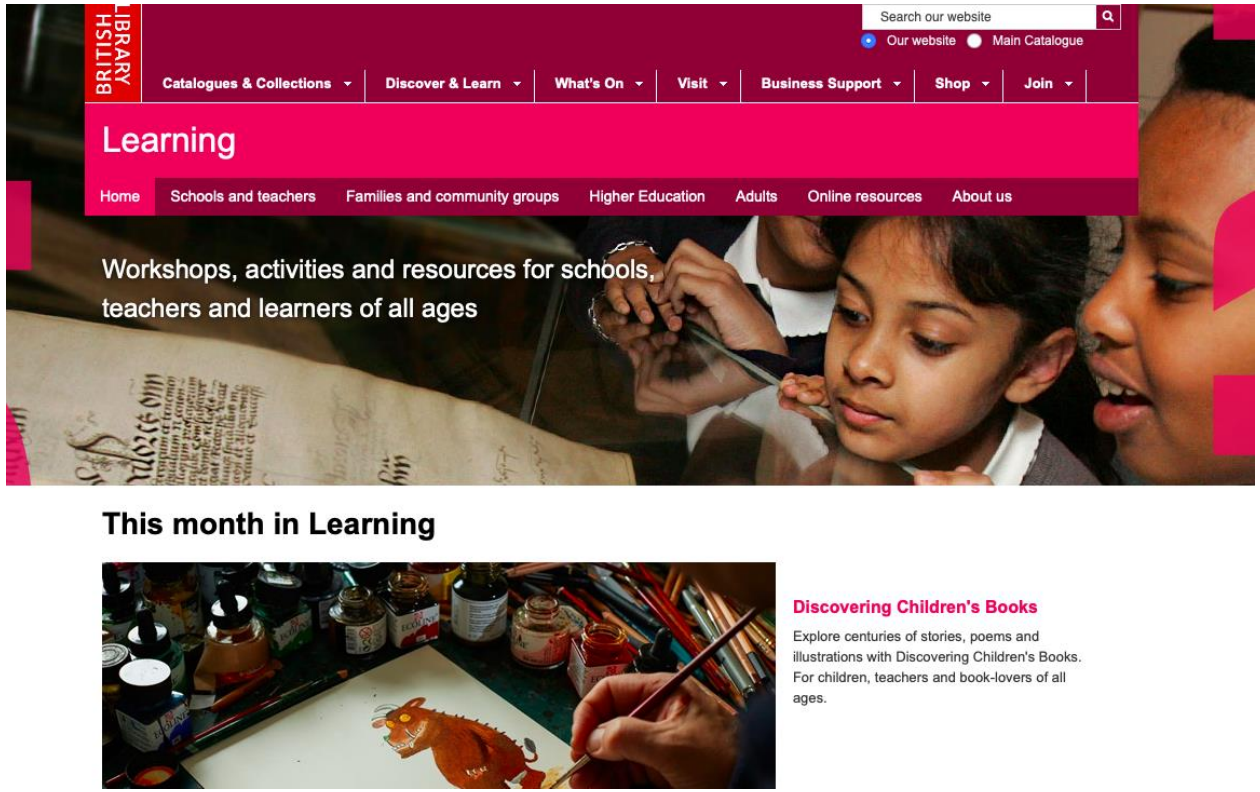
Learning Web page

School teachers and all age learners

Open education

CPD events

Social media interaction



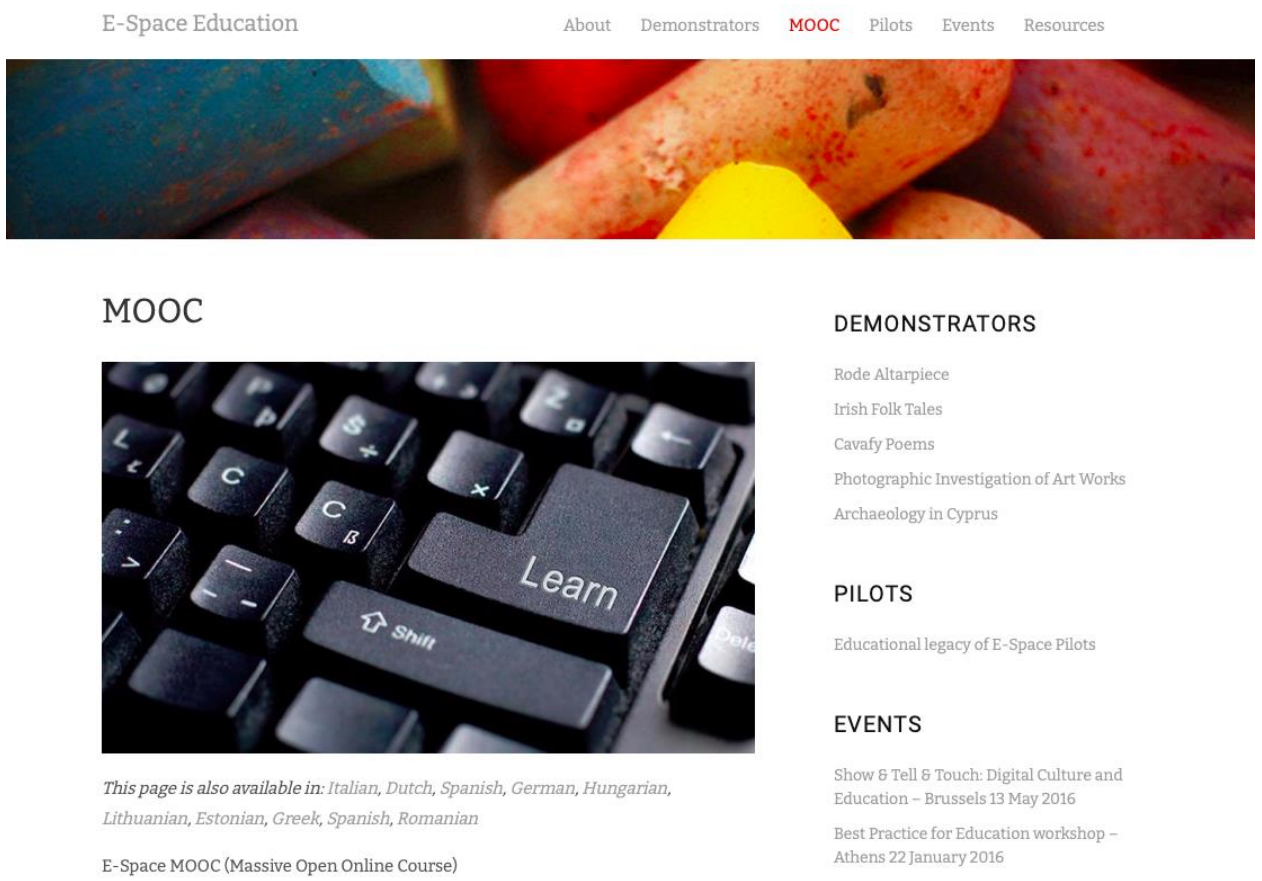
Good practice: Europeana Space

Employment and industry sectors

Hackathon, Workshop, MOOC

Incubated projects

Creativity

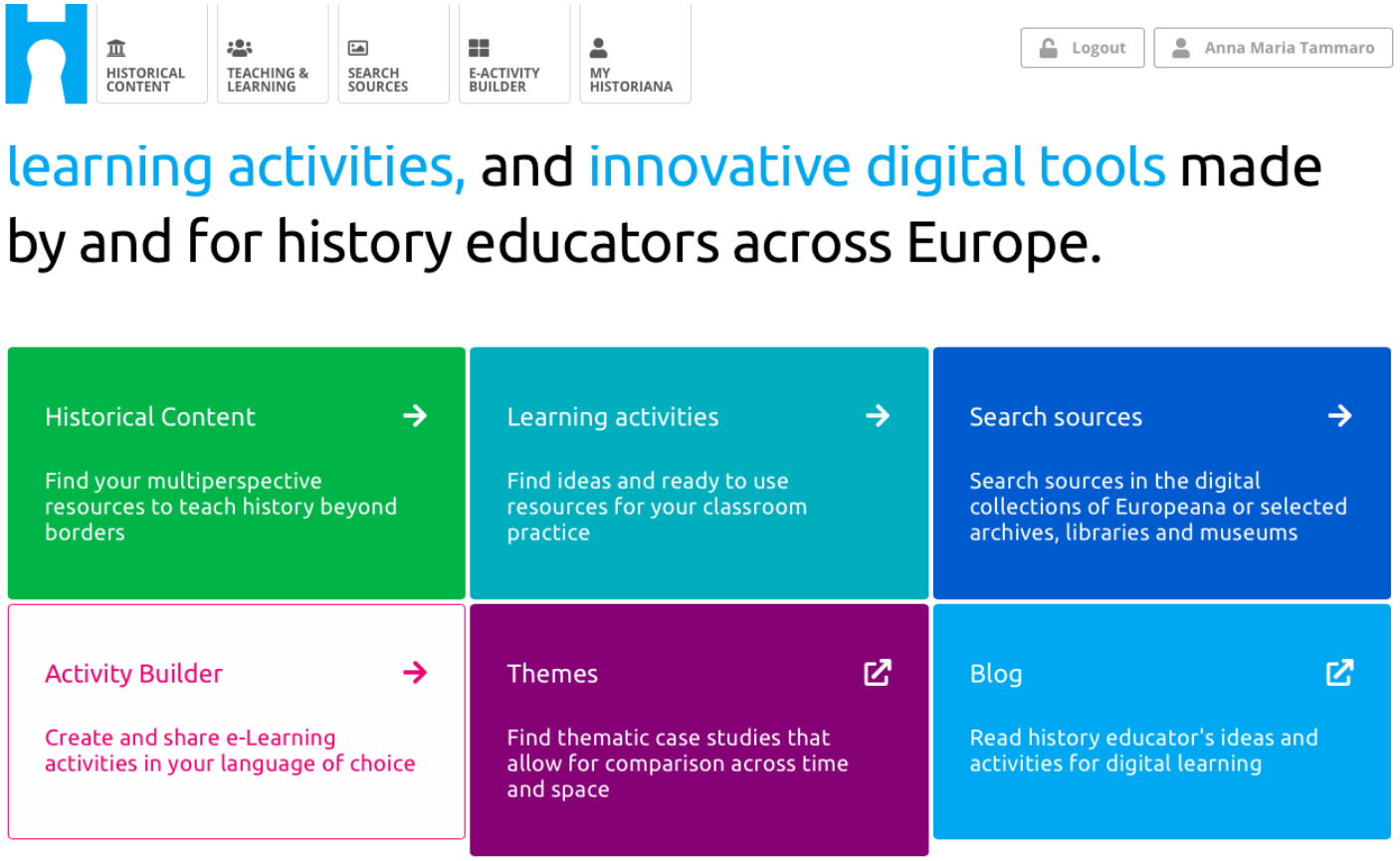


Good practice: Historiana

History teachers and learners

Activity builder

Open education



Digital Libraries for Learning

Traditional and not traditional services

Tools	Learning Environment
INFORMATION ACCESS Home page Databases Discovery tools Repositories Document delivery Reference	**COLLECTION CENTERED** Resources embedded or linked to e-learning platform OER and learning material Metadata for learning Copyright and licences advice
INTERACTION Dedicated Home page Inquiry learning and searching Videoconference Forum, chat, email Social media Web App for learning	**LEARNER CENTERED** Learning communities needs analysis and learning outcomes plan MOOC, OER, tutorial for Media Information literacy Faculty support for instructional design Group task, quiz, simulation, games, learning activities Assessment, learning analytics Certification

ACRL Standard 2006 (new version 2016)

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Switch to an exclusive e-learning solution

- Were we prepared?
- Higher education now is competing with specialized online learning companies in equal ground.
- Did libraries respond at least ensuring that remote access to databases was widely known and used?

Students' challenges

- Mixed satisfaction with their e-learning experiences
- Most say to have adapted but motivation and self-efficacy are difficult.
- They miss lectures and personal communication with their professors.
- e-learning could not replace face-to-face learning
- Not many want to continue exclusively with e-learning
- Can everyone access/afford technologies/connectivity?
- Effective learning involves greater autonomy, self-regulation and skills to learn online.

(Almaiah et al., 2020; Deloitte, 2020, Puljak et al., 2020; Rashid & Yadav, 2020; Schleicher, 2020)

Institutional challenges

- Adaptation of procedures and activities
- Organization of e-learning courses and platforms
- Provide training and support on the online tools used
- Provide equipment to bridge divides
- Analyze students' and professors' usage and adoption of systems (and resistances)(e.g. Technology Acceptance Model).
- Issues around systems' accessibility, availability, usability, reliability, personalization and service quality.

(Almaiah et al., 2020; Deloitte, 2020, Puljak et al., 2020; Rashid & Yadav, 2020; Schleicher, 2020)

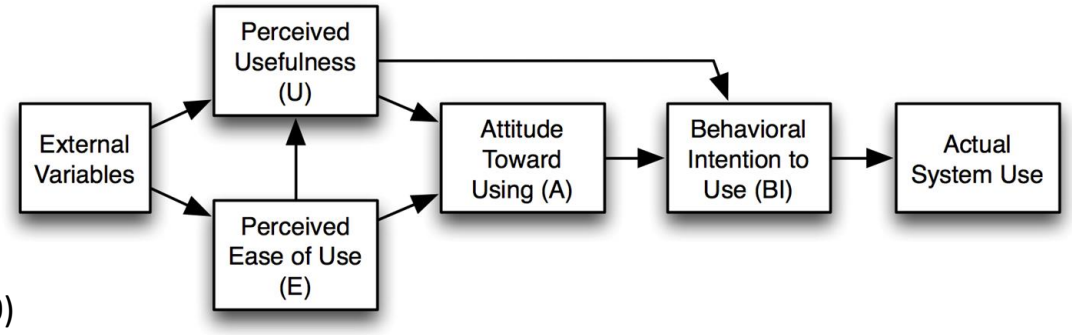
Institutional challenges

- e-learning systems not easy to use, nor flexible, harms experiences
- Provide professors with autonomy and trust
- Ensuring good communication among stakeholders
- Institutions should plan for e-learning to become a regular part of education post-pandemic.
- Support teaching staff to ensure they effectively engage students and deliver their courses.
- The number of students per professor should be limited, institutions must keep workloads in check.

(Almaiah et al., 2020; Deloitte, 2020, Puljak et al., 2020; Rashid & Yadav, 2020; Schleicher, 2020)

TAM, a recipe for success BUT!

- Technology Acceptance Model, useful if timely applied
- Important for institutions to pilot implementations, but it was not entirely possible
- Key factors for acceptance of systems were related to enjoyment and self-efficacy
- But students partially think that e-learning has been effective
- e-service quality and information quality are related to use and satisfaction
- Perceived ease of use benefits performance, system adoption, perceived usefulness, and efficacy when using systems.
- Sufficient time must be invested in learning activities for them to be effective.



(Davis et al., 1989; Almaiah et al., 2020; Di Pietro et al., 2020; Rizun & Strzelecki, 2020)

Teaching challenges

- ❑ Provide timely feedback
- ❑ Professors' organization
- ❑ Delivering online lectures (and record them)
- ❑ Adapt instructions to an e-learning model
- ❑ Look for students' feedback and support them
- ❑ Sending presentations or readings instead of delivering online lectures
- ❑ Balance between too few or too many assignments
- ❑ Lack or loss of practical instruction
- ❑ Digital and information literacy

(Almaiah et al., 2020; Deloitte, 2020, Puljak et al., 2020; Rashid & Yadav, 2020; Schleicher, 2020)

Good experiences for e-learning

- International guest lecturers with a wide variety of strategies and visions outside of academia

  (Fulton, 2020)

- Collaboratively build knowledge, discuss, co-construct and interact with content

  (Duvall et al., 2020)

- Use social media for engagement, relationship-building & collaborative creation

  (Greenhow & Galvin, 2020)

- Provide technical skills for future working opportunities, but students' engagement, discipline and self-direction has to be nurtured and improved.

  (Rasiah et al., 2020)

- Implement participatory methodologies and information literacy.

Good experiences from libraries

- Reposition academic libraries to enhance their support of other areas

  (Mehta and Wang, 2020)

- Explo[de]re the possibilities of document delivering services

  (Saavedra et al., 2020)

- Strengthen the library community through online activities & sites

  (Temiz and Salelkar, 2020; Cleave and Geijsman, 2020).

- Increase the number of videos, tutorials and webinars.

Image: nla.gov.au/stories/news/2019/06/07/digital-legal-deposit-is-here

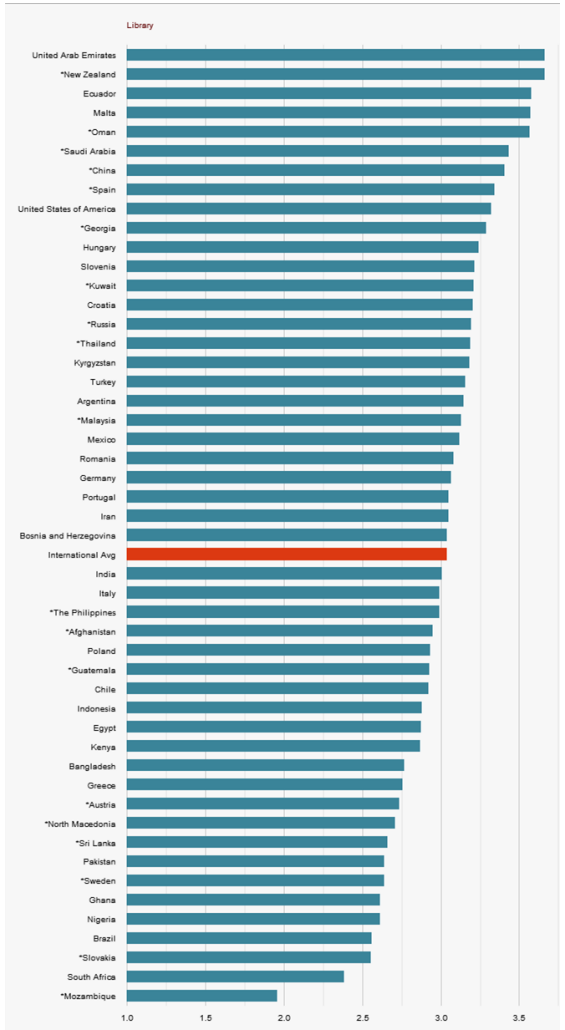
COVID-19 Social Science Lab

- Faculty of Public Administration at University of Ljubljana (with international partners) launched a worldwide online survey.
- 31,000+ students (six continents, 100+ countries and 150+ institutions).
- How was student life during COVID-19: teaching, learning, social contacts, and mental health.

http://www.covidsoclab.org

In a scale from 1 to 5…

- Students are most satisfied with teaching staff of all the university facilities and staff (3.39), lectures (3.21) and IT services (3.10).
- But the library (2.97) is at the bottom three just before international offices (2.96) and accounting (2.87).
- Performance: more difficult to focus (3.8), performance has worsened (3.2), adapted well (3.2), performance improved (2.6).
- Confidence in computer skills: communication platforms (4.5), browsing online information (4.1), sharing content (3.9), specialized software (3.7), teaching platforms (3.6).



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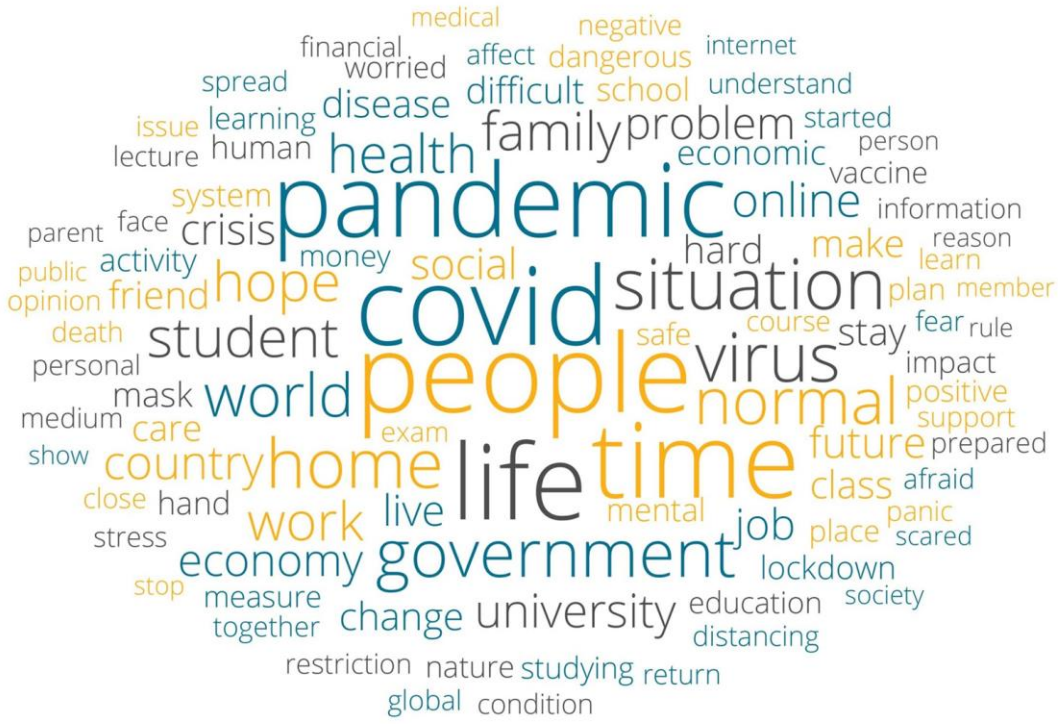
Percentages of students...

- Equipment: a computer (75%), a desk (67%), good Internet connection (60%), webcam (59%), course study materials (52%), a quiet place to study (52%), and printer (32%).
- Emotions: bored (45%), anxious (40%), hopeful (40%), frustrated (39%), joyful (30%), proud (27%), angry (26%).
- Worries: professional future (42%), studying issues (40%), future education (37%), finances (33%).
- Class workload: it has been significantly larger (14.6%), larger (28%), the same (26.6%).



SOURCE: Aristovnik, A. et al. (2020). Impacts of the Covid-19 Pandemic on Life of Higher Education Students: A Global Perspective (forthcoming)

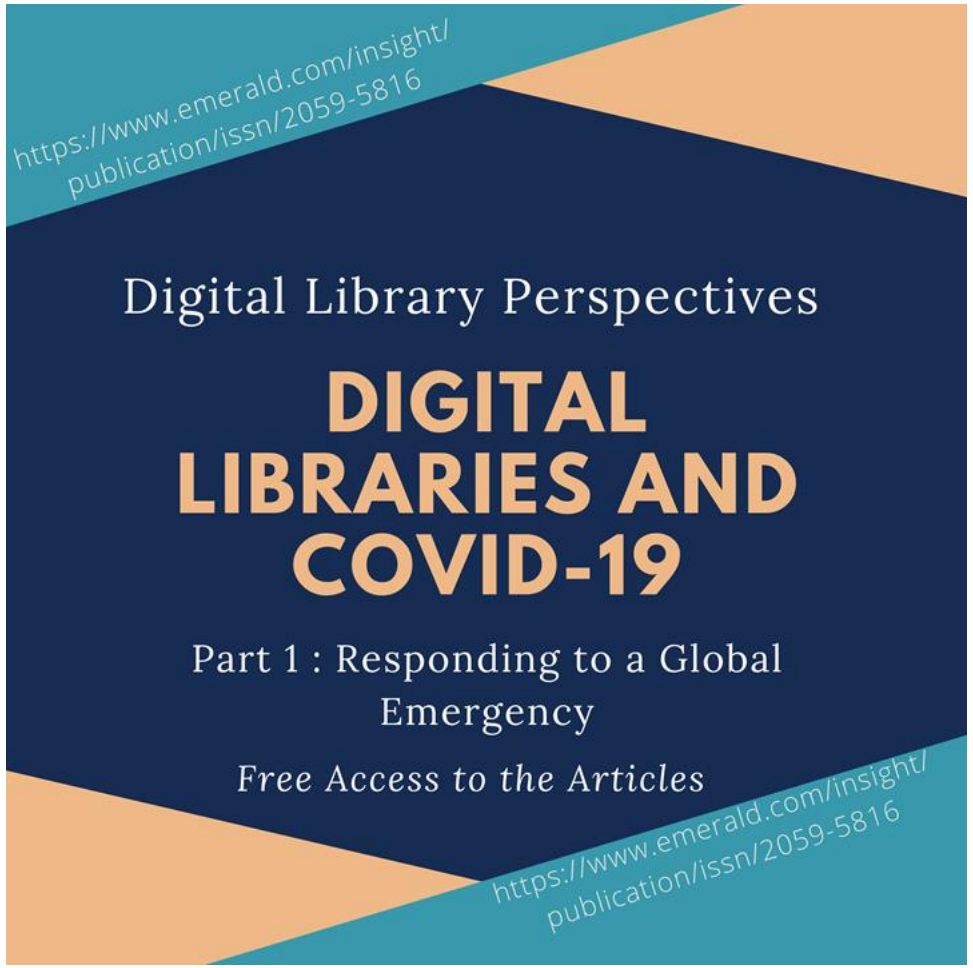
http://www.covidsoclab.org

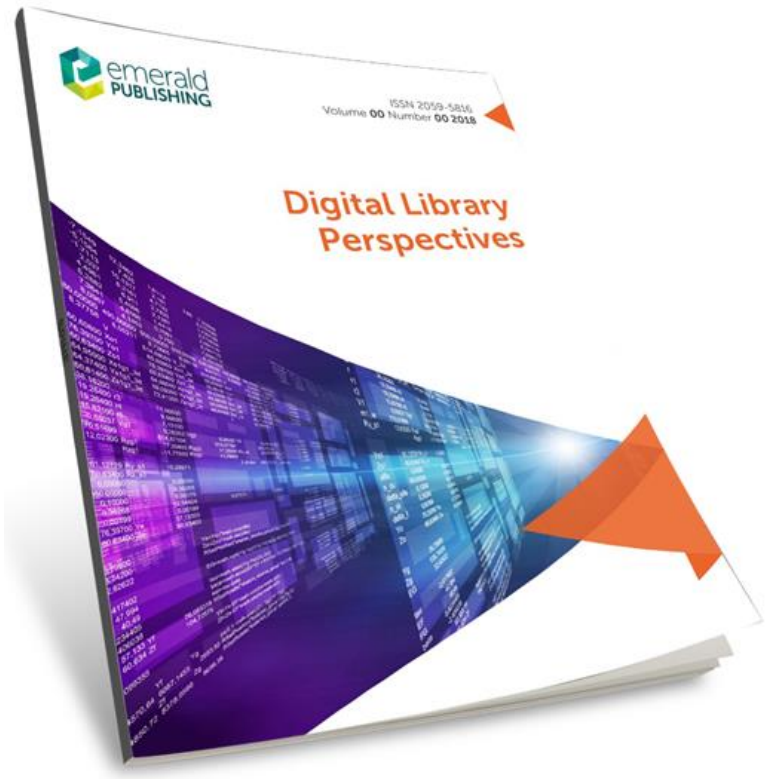
To read more about the survey

Download the *Global Student Survey Infographic Brochure on Impact of the Covid-19 Pandemic on the Life of Higher Education Students*, at https://bit.ly/3fJAR8E

http://www.covidsoclab.org

Invitation: Digital Library Perspectives special





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Perspectives

Cross-pollination among Digital Libraries community and the E-learning community.

Can Digital Libraries improve learning? Learner centered approaches need empathy and active pedagogy.

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