

SUMMARY REPORT

“Design of the teaching and learning open access online modules and materials for the development of an innovative educational intervention”



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1. INTRODUCTION

1.1. Rationale and aim of the output

Intellectual Output 2 (IO2) is a significant component of the project. This deliverable will be in the form of a teaching and learning guide- report with associated teaching and learning online materials, using digital pedagogies that will be finally integrated into the web- based e-Toolkit and tested by project partners (Output 3 and 4). The content will include materials, examples and resources that focus mainly on digital literacy. The educational material for digital literacy will have immediate impact for learners, educators and institutions. Use in teaching and learning will impact on learner's attitudes and perceptions of digital learning. We expect this educational interventions will improve factors relating to student performance, such as enthusiasm, engagement and self- confidence giving them the incentives to immerse in the digital education and interact more effectively in a multicultural modern society.

Open Educational Resources (OER) are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. OER can take many forms, such as: syllabi, lesson plans, videos, software, tests, teaching techniques, group activities, writing prompts, textbooks, learning modules, lecture slides, lab manuals, experiments, simulations, and course designs.

Traditional Textbooks vs. OER:

What's the same and What's different?

	Traditional Textbook	Open Textbook	Open Educational Resources (OER)
What is its purpose?	Provides basic course content for student reading and reference	Provides basic course content for student reading and reference	Provides basic course content for student reading and reference
What does it look like?	A single one-size-fits all book (or e-book)	A: A single book (or e-book) adopted as-is B: A single book (or e-book) adopted with customization by the instructor	A: An online collection of resources curated, remixed and customized by the instructor B: The same as (A) above, in printable format for those students who prefer print
How does an instructor choose it?	A. Through evaluation of sample copy provided by the publisher, in print or online. B. Peer review by publisher often assumed but not shared.	A. Through evaluation of free online copy. In some cases a print sample copy is available. B. Peer reviews often available	A. Through searching and evaluating component resources found in OER repositories. Search is based on specific learning outcomes and content needs defined by the instructor B. Peer reviews are often available
How is it adopted by an instructor?	Selection is made and approved by colleagues, department head and/or dean, depending on the policies of the college. The bookstore is also included and notified of changes to text selection.	Selection is made and approved by colleagues, department head and/or dean, depending on the policies of the college. The bookstore is also included and notified of changes to text selection.	Selection is made and approved by colleagues, department head and/or dean, depending on the policies of the college. The bookstore is also included and notified of changes to text selection.
How do students use it?	A. Students bring the text (or e-book equivalent) to class and back as needed. B. Students may choose to read and annotate in print or with a mobile device	A. Students bring the text (or e-book equivalent) to class and back as needed. B. Students may choose to read and annotate in print or with a mobile device C. Customization ensures that the book is only as big as it needs to be.	A. Students print those portions that are needed for class. B. Students may choose to read and annotate in print or with a mobile device. C. Customization ensures that the resources shared are all relevant to the course
How much do students pay?	The average cost of a college textbook is around \$175 per course	A. Free for online access B. Around \$30-\$60 for printed and bound copies, or cost of printing PDF	A. Free for online access B. Cost of printing PDF

This worksheet developed by Kate Hess, Library Coordinator, Kirkwood Community College. October 17, 2014, and licensed under a Creative Commons Attribution license. For digital copy see <http://guides.kirkwood.edu/opentextbooks>

Available:

<http://www.codlrc.org/sites/default/files/dupage%20workshop%20handout%20hess.pdf>

1.2. Aim and objectives of the review

IO2 goal was to leverage and implement the best evidence in order to develop effective educational teaching materials and strategies for teachers and students. Knowledge, skills and attitudes towards digital teaching are the elements of the teachers' and students' digital and IM competence and they will be cultivated and increased through the interventions that international literature highlights.

Towards this direction, IO2 aimed to design teaching and learning open access online materials focusing on improving teachers' and students IM competences and to incorporate these material to an innovative educational intervention and e-Toolkit freely available to learners.

The specific objectives of IO2 include:

- To develop an **Online Library for International Mobility (OL_IM)** that includes all types of online and free licensed resources output aiming to improve teachers' and students' IM competences focusing on digital literacy.
- To facilitate online resources for better comprehension of the IM competencies, addressed to students and professionals.
- To provide online resources for IM competencies cultivation in a digital way.

2. METHODS

All the team partners were involved in applying a search strategy to identify and select relevant open-access and online resources in their native languages and English language following the next steps.

2.1. Definition of key concepts

The WITEA-ID consortium decided to focus on material searches related to IM competences with a special interest in "Digital literacy".

2.2. Eligibility criteria

- Open online resources with any of the next forms:
 - ⇒ eBooks, documents, reports, papers in any format: pdf, html, etc..
 - ⇒ Videos (Youtube etc)
 - ⇒ Slide presentations (SlideShare etc.)
 - ⇒ Audio, podcast (i-Tunes etc.)
 - ⇒ Websites, blogs

- Open online resources with contents regarding International Mobility Competencies in Higher Education with a special focus on digital literacy.

2.3. Search the resources

- Search engines:
 - ⇒ <https://archive.org/>
 - ⇒ <https://duckduckgo.com/>
 - ⇒ <https://gr.yahoo.com/>
 - ⇒ <https://www.bing.com/>
 - ⇒ <https://www.google.com/>
- Scientific search engines:
 - ⇒ <https://worldwidescience.org/>
 - ⇒ <https://scholar.google.com/>
- Search in electronic databases:
 - ⇒ National (each partner will chooses their own databases)
 - ⇒ International: Medline/PubMed, Cinahl, Embase

Manual searches in:

- Professional associations:
 - ⇒ International
 - ⇒ National (each partner translates into his own language)
- Universities:
 - ⇒ International
 - ⇒ National (each partner translates into his own language)

2.4. Search planning- task allocation

Searches for the open-access and online resources included all categories below and the distribution of the searches were agreed as below:

Material Categories	MENDELU	UOC	IUC	HMU
Scientific Publications, reports			X	X
Slide Presentations	X			
eBooks, texts, documents		X		
Videos, Audio, Podcast	X			
Websites, blogs			X	
Images		X		X

Each partner conducted searches in English language and in their own native language (publications, ppts, videos, websites etc).

3. Teaching and learning open access online modules and materials for the development of an innovative educational intervention

3.1 Teaching and learning open access online modules and materials

Table 1-5 summarise recommended teaching and learning open access online modules and materials in English as they were retrieved through searches performed by all WITEA-ID partners.

Table 6-8 summarise recommended teaching and learning open access online modules and materials in partners' native language (Greek, Czechish, Croatian) as they were retrieved through searches performed by all WITEA-ID partners.

Table 1. An overview of selected PRESENTATIONS, VIDEOS, AUDIO, PODCAST, BLOGS related to digital literacy competence

A/A	Title	Link
1	Cloud computing	https://www.linkedin.com/learning/topics/cloud-computing-5
2	Data science	https://www.linkedin.com/learning/topics/data-science
3	Computing with confidence, getting job skills, and staying safe online	https://www.linkedin.com/learning/working-and-collaborating-online/computing-with-confidence-getting-job-skills-and-staying-safe-online?autoplay=true
4	Working with computers to create opportunity	https://www.linkedin.com/learning/working-with-computers-and-devices/working-with-computers-to-create-opportunity?autoplay=true
5	Build an e-Learning website with LearnWorlds-I	https://www.youtube.com/watch?v=2aelK3SJuwE&list=PLOn2LyVWrDJmVRXA4xrZSyzE_86oG GkCl&t=6s
6	Build an e-Learning website with LearnWorlds-II	https://www.youtube.com/watch?v=2aelK3SJuwE&list=PLOn2LyVWrDJmVRXA4xrZSyzE_86oG GkCl&index=2
7	Teaching Online: Mindset & Strategies for Instructor Success	https://www.udemy.com/course/teaching-online-strategies-for-success/
8	Another 40 tips on making a Great Online Course	https://www.udemy.com/course/another-40-tips-on-making-a-great-online-course/
9	Online Course Crash Course: Win at Teaching Online Courses	https://www.udemy.com/course/online-course-crash-course-win-at-teaching-online-courses/
10	Start Up Course Hero - How To Develop An Online Course	https://www.udemy.com/course/start-up-course-hero-how-to-develop-an-online-course/
11	40 Tips on Making a Great Online Course	https://www.udemy.com/course/40-tips-on-making-a-great-online-udemy-course-haroun-save-time-money/

12	How to Create an Online Course: The Official Udem Course	https://www.udemy.com/course/official-udemy-create-course/
13	How To Create and Record Online Courses	https://www.udemy.com/course/create-record-online-courses/
14	Learn How To Create An Online Course In 10 Days. Unofficial	https://www.udemy.com/course/howtomakemoneyfromhome/
15	Udemy Course Creation - Free Training - Unofficial	https://www.udemy.com/course/unofficial-udemy-business-building-create-a-training-course-business/
16	Everything You Need to Know About Creating an Online Course	https://www.udemy.com/course/createacourse/
17	Digital Twin : A Comprehensive Overview	https://www.udemy.com/course/digital-twin-a-comprehensive-overview/
18	Social Media Ethics	https://www.udemy.com/course/social-media-ethics/
19	Teaching with Typesy	https://www.udemy.com/course/teaching-with-typesy/
20	Microsoft Excel - Improve your skills quickly	https://www.udemy.com/course/microsoft-excel-improve-your-skills-quickly/
21	Online Teaching Course: Basics of Teaching Online	https://www.udemy.com/course/online-teaching-course-basics-of-teaching-online/
22	How to Make an Online Community Platform	https://www.udemy.com/course/create-online-community/
23	GCP - Google Cloud Platform Concepts	https://www.udemy.com/course/gcp-google-cloud-platform-concepts/
24	Smart eLearning Content Development Course for All	https://www.udemy.com/course/create-video-elearning-content-quiz-easy-quick-teachers-course/

25	Learning Microlearning	https://www.udemy.com/course/learning-microlearning/
26	Microsoft Excel - Advanced Excel Formulas & Training	https://www.udemy.com/course/excel-by-digiflax/
27	Interactive lessons (Liveworksheets, Padlet and Wordwall)	https://www.udemy.com/course/liveworksheets-interactive-activities-in-class/
28	Conducting High Engagement Smart Tutorials For Your Students	https://www.udemy.com/course/conducting-high-engagement-smart-tutorials-for-your-students/
29	Interactive Online Teaching with Demo	https://www.udemy.com/course/interactive-online-teaching-with-demo/
30	How to properly present PowerPoint slides in Zoom	https://www.youtube.com/watch?v=wNOZRa089-U
31	Google slides	https://www.youtube.com/playlist?list=PLpQQipWcxwt8VFQWcbUcmlHKejroVSzs0
32	Basic Computer Skills - Skills To Help You Succeed	https://www.udemy.com/course/taking-online-classes/
33	Basic Computer Skills - Skills To Help You Succeed	https://www.udemy.com/course/excel-2019-beginner-to-microsoft-intermediate/
34	European Association for International Education	https://www.eaie.org/blog.html

Table 2. An overview of selected eBooks, TEXTS, DOCUMENTS related to digital and IM competences

A/A	Title	Link
1	21st-Century Readers – Developing literacy skills in a digital world	https://www.oecd-ilibrary.org/docserver/a83d84cb-en.pdf?expires=1652792504&id=id&accname=guest&checksum=3D6A11F61202B6CFFF337F288A35336A
2	Assessing the impact of OER availability on the emergence of open educational practices in sub- Saharan Africa	https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/56839/56899.pdf
3	Background Review for Developing the Digital Competence Framework for Consumers	http://www.davidstillwell.co.uk/articles/LFNA28196ENN.pdf
4	BC’s Digital Literacy Framework	https://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-12/teach/teaching-tools/digital-literacy-framework.pdf
5	Developing digital competence for employability: Engaging and supporting stakeholders with the use of DigComp	https://publications.jrc.ec.europa.eu/repository/handle/JRC118711
6	Digital Competence in Practice: An Analysis of Frameworks	https://ifap.ru/library/book522.pdf
7	Digital literacy across the curriculum	https://www.nfer.ac.uk/publications/futl06/futl06.pdf
8	Digital Literacy and Employability	https://www.heacademy.ac.uk/system/files/digital_literacy_employability.pdf
9	Digital Literacy: Definition, Theoretical Framework, and Competencies	https://digitalcommons.fiu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1213&context=sferc

10	Digital thinking tools for better decision making	https://www.open.edu/openlearn/science-maths-technology/digital-thinking-tools-better-decision-making/content-section-overview?active-tab=description-tab
11	Digital Citizenship Toolkits	https://www.commonsense.org/education/toolkits
12	Skills for a digital world – digital Literacy Framework- Enabling a digital future	https://www.latrobe.edu.au/_data/assets/pdf_file/0005/995963/digital-literacies-framework.pdf
13	Digital Literacy	https://www.westernsydney.edu.au/_data/assets/pdf_file/0009/1105398/eBook_-_Digital_literacy.pdf
14	Enabling your students to develop their digital literacy	https://teachlearn.leedsbeckett.ac.uk/-/media/files/clt/clt_enabling_digital_literacy.pdf
15	How to strengthen digital literacy? Practical example of a European initiative “SPreaD”	https://joinup.ec.europa.eu/sites/default/files/document/2014-12/How%20to%20strengthen%20digital%20literacy%20-%20Practical%20example%20of%20a%20European%20initiative%20SPreaD.pdf
16	Review of the Italian Strategy for Digital Schools	https://www.oecd.org/education/cei/Innovation%20Strategy%20Working%20Paper%2090.pdf
17	Skills for a digital world	https://www.oecd-ilibrary.org/science-and-technology/skills-for-a-digital-world_5jlwz83z3wnw-en
18	Digital Literacy	https://lincs.ed.gov/sites/default/files/TSTMDigitalLiteracyBrief-508.pdf
19	The future of work and education for the digital age	https://t20japan.org/policy-brief-multidimensionality-digital-literacy/
20	The information literacy – User’s guide	https://libraries.idaho.gov/files/The-Information-Literacy-Users-Guide-pdf%20(2).pdf

21	Digital Literacy in Education Systems Across Asean	https://www.unicef.org/eap/reports/digital-literacy-education-systems-across-asean
22	Digital literacy for children: exploring definitions and frameworks	https://www.unicef.org/globalinsight/media/1271/file/%20UNICEF-Global-Insight-digital-literacy-scoping-paper-2020.pdf
23	Information Literacy: Research and Collaboration across Disciplines	https://wac.colostate.edu/books/perspectives/infolit/
24	New Vision for Education - Unlocking the Potential of Technology	https://www3.weforum.org/docs/WEFUSA_NewVisionforEducation_Report2015.pdf

Table 3. An overview of selected PUBLICATIONS- REPORTS related to digital and IM competences

A/A	Title	Link
1	Functions of digital learning within the international mobility programme – perspectives of university students and staff from Europe	https://link.springer.com/article/10.1007/s10639-021-10855-y
2	Developing Online/Hybrid Learning Models for Higher Education Programs	https://www.semanticscholar.org/paper/Developing-Online%2FHybrid-Learning-Models-for-Higher-Young-Allen/452e269f1d18af84834b9e857de185425449ea13
3	Rethinking mobility of international university students during COVID-19 pandemic	https://www.emerald.com/insight/content/doi/10.1108/HEED-01-2021-0014/full/pdf?title=rethinking-mobility-of-international-university-students-during-covid-19-pandemic
4	Digital Literacy: A Prerequisite for Effective Learning in a Blended Learning Environment?	https://eric.ed.gov/?id=EJ1099109
5	Rathenau Instituut reports	https://www.rathenau.nl/en/themes/reports

Table 4. An overview of selected WEBSITES related to digital and IM competences

A/A	Title	Link
1	MIT Open Courseware	https://ocw.mit.edu/help/get-started-with-ocw/
2	Open Education: Information / Digital Literacy & Research Skills - Virginia Tec	https://guides.lib.vt.edu/oer/digiLit
3	Open Educational Resources	https://www.oercommons.org/
4	Open Virtual Mobility moocs	https://hub.openvirtualmobility.eu/course/index.php?categoryid=19
5	Open Educational Resources, University of Edinburgh	https://open.ed.ac.uk/radical-digital-literacy-oer/
6	ablconnect - Harvard University	https://ablconnect.harvard.edu/going-digital
7	Educate -it - University of Utrecht	https://educate-it.uu.nl/en/
8	The Campus	https://www.timeshighereducation.com/campus/collections/higher-education-goes-hybrid
9	Learning for Resilience	https://ikic-moodle.ima.rwth-aachen.de/course/index.php?categoryid=8
10	E learning Culture and Languages	http://e-culture.eu
11	ELearning Unity in Diversity	http://esolams.eu/unity/
12	Digital Literacy	https://www.westernsydney.edu.au/studysmart/home/study_skills_guides/digital_literacy

Table 5. An overview of selected IMAGES related to digital and IM competences

A/A	Link
1	https://www.flickr.com/photos/81441473@N00/4300585096
2	https://www.flickr.com/photos/47823583@N03/4576825411
3	https://www.flickr.com/photos/68144456@N00/8291643623
4	https://www.flickr.com/photos/91406258@N00/5374021856
5	https://www.flickr.com/photos/23346165@N03/2304444220
6	https://www.flickr.com/photos/10838559@N00/2097911609
7	https://www.flickr.com/photos/35034347758@N01/26835614181
8	https://www.flickr.com/photos/connectirmeli/4767600770/in/photolist-8gicBh-nFXyy9
9	https://www.flickr.com/photos/83955435@N00/1472422325
10	https://www.flickr.com/photos/32119772@N03/5738064998
11	https://www.flickr.com/photos/22417120@N08/8134106973
12	https://www.flickr.com/photos/jaycross/3953558009/in/photolist-9pscNh-Vd8Z9S-nS1Erd-27A4bX1-GBnCaT-nTWbce-adxDzj-51Addy-nTWc2F-Mfv3VR-N5CpYi-2jS7N9m-cztGCh-dB2Fzd-72n24g-9Vuuu8-66uCSw-dWPLdP-6f2DsJ-51vYXP-51AcaE-

51vZp2-51AdAG-cssDqU-B7ajJo-BBxqcW-
BBxqhf-C4ER2v-Bv9UZB-Bv9VUH-
24crQkK-nzEpLf-51vZE8-51vYHr-51AcHA-
51vYQK-51vYAz-51vZhF-51vZMk-
51AcQb-51AdJy-oQb1ww-gV4Bnq-gV5iCc-
gV4fZS-gV4P3i-gV4mEP

13 <https://www.flickr.com/photos/29071316@N06/4230286001>

14 <https://www.flickr.com/photos/29071316@N06/4230283115>

15 <https://www.flickr.com/photos/59217476@N00/8553975181>

16 <https://www.flickr.com/photos/66684537@N00/5647522617>

17 <https://www.flickr.com/photos/59217476@N00/8261536706>

18 <https://www.flickr.com/photos/7815007@N07/7985592878>

Table 6. An overview of selected OER related to digital and IM competences in Greek

A/A	Title	Link
1	Η Τεχνολογία στην Εκπαίδευση	https://economu.wordpress.com/
2	Σχέδιο δράσης για την ψηφιακή εκπαίδευση — Δράση 7	https://education.ec.europa.eu/el/focus-topics/digital-education/action-plan/action-7
3	Ο ψηφιακός γραμματισμός στην υποχρεωτική εκπαίδευση: Μελέτη των απόψεων μαθητών γυμνασίου για τις ψηφιακές ικανότητες που έχουν αναπτύξει	https://freader.ekt.gr/eadd/index.php?doc=48092&lang=el
4	Ψηφιακός γραμματισμός στη δευτεροβάθμια εκπαίδευση: το παράδειγμα μιας έρευνας δράσης	https://freader.ekt.gr/eadd/index.php?doc=49047&lang=el
5	Ψηφιακός γραμματισμός	https://www.youtube.com/watch?v=AyQltNLwg3o
6	Ψηφιακός γραμματισμός και εκπαίδευση	https://www.youtube.com/watch?v=PZCUUA2JKHY
7	Οδηγός Εκπαιδευτικού για τη Μελέτη Περιβάλλοντος	https://drive.google.com/file/d/1Z-ixX1LOQrkdP1o4XkNd9OFoIVaVCsgn/view?usp=share_link
8	Νεοελληνική Γλώσσα-Γραμματική περιγραφή- Επικοινωνιακή Γραμματική και διδασκαλία της Γραμματικής	https://drive.google.com/file/d/15KRehITVZz6qFN0XWerTitaR3WZXrHvA/view?usp=share_link
9	Νεοελληνική Γλώσσα- Γραμματική περιγραφή-Μεταγλωσσική ικανότητα και Μεταγλωσσική επίγνωση	https://drive.google.com/file/d/1kqgivYY7Yrpcm8IFhW8dyICkVqOBMrdr/view?usp=share_link
10	Μελέτη Περιβάλλοντος- Αναστοχασμός και Αποτίμηση της επιμορφωτικής διαδικασίας	https://drive.google.com/file/d/10KUQuET6jOdZQal_TYtlX8Lbr-UKERrb/view?usp=share_link
11	Δημιουργώ και Καινοτομώ- Δημιουργική Σκέψη και Καινοτομία	http://didaskaleio.weebly.com/uploads/2/4/1/4/24147639/%CE%9A%CE%91%CE%99_%C

Ψηφιακές δεξιότητες- Θεματική:
«STEAM και η ΓΗ γυρίζει...»

[E%97_%CE%93%CE%97_%CE%93%CE%A5%CE%A1%CE%99%CE%96%CE%95%CE%99..._%CE%A6%CE%A9%CE%A4%CE%A0%CE%91%CE%A1%CE%91%CE%A3%CE%9A%CE%95%CE%A5%CE%97.pdf](http://users.sch.gr/hgoutsos/files/dejiotites/E%97_%CE%93%CE%97_%CE%93%CE%A5%CE%A1%CE%99%CE%96%CE%95%CE%99..._%CE%A6%CE%A9%CE%A4%CE%A0%CE%91%CE%A1%CE%91%CE%A3%CE%9A%CE%95%CE%A5%CE%97.pdf)

12 Δημιουργώ και Καινοτομώ-
Δημιουργική Σκέψη και
Πρωτοβουλία- Μεθοδολογία
εμπύχωσης δεξιοτήτων: Βασικές
δεξιότητες για τους πολίτες του 21ου
αιώνα

<http://users.sch.gr/hgoutsos/files/dejiotites/2-6a.pdf>

Table 7. An overview of selected OER related to digital and IM competences in Czechish

A/A	Title	Link
1	STRUČNÉ VYMEZENÍ DIGITÁLNÍ GRAMOTNOSTI A INFORMATICKÉHO MYŠLENÍ	http://archiv-nuv.npi.cz/t/strucne-vymezeni-digitalni-gramotnosti-a-informatickeho.html
2	Digitální gramotnost v kontextu současného vzdělávání	
3		https://pages.pedf.cuni.cz/gramotnost/files/2019/01/01_Jerabek.pdf
4	DIGITÁLNÍ KOMPETENCE	http://archiv-nuv.npi.cz/uploads/P_KAP/ke_stazeni/pojeti_decizni_sfera/Digitalni_kompetence_IV_podrobnost_oblasti_intervence.pdf
5	Analýza systémů a nástrojů pro podporu cíleného rozvoje digitální gramotnosti	https://portaldigi.cz/wp-content/uploads/2019/05/Vystup_1_system_podpory_CR_final.pdf
6	ZNALOSTNÍ A UŽIVATELSKÁ SPECIFIKA DIGITÁLNÍ KOMPETENCE UČITELŮ VĚD O ČLOVĚKU A SPOLEČNOSTI VE STŘEDNÍM ODBORNÉM VZDĚLÁVÁNÍ	https://lifelonglearning.mendelu.cz/media/pdf/LLL_20201002175.pdf
7	Od digitální gramotnosti k informatickému myšlení - koncepce, obsah a realizace výuky informatiky z pohledu jejich aktérů	https://www.researchgate.net/publication/337224633_Od_digitalni_gramotnosti_k_informatickemu_mysleni_-_koncepce_obsah_a_realizace_vyuky_informatiky_z_pohledu_jejich_akteru
8	Digitální gramotnost v uzlových bodech vzdělávání	https://www.vzdelavacisluzby.cz/dokumenty/banka-souboru/2006205.pdf
9	ICT - Rozvoj digitální gramotnosti ve výuce	https://www.youtube.com/watch?v=VSXKhg5Y1L0

10	Náměty k digitální aplikaci metodik	https://rskuk.cz/files/IKAP-A/Sborniky_synteza-OPVK/Sbornik-Digitalni-gramotnost.pdf
11	Jak budovat digitální kompetence žáků základních a středních škol využíváním metod a nástrojů GIS	https://download.arcddata.cz/konf/2019/prednasky/prezentace-PDF/Smida_TUL_web.pdf
12	Digitální kompetence: zásadní dovednost 21. století pro učitele a studenty	https://www.schooleducationgateway.eu/cz/pub/resources/tutorials/digital-competence-the-vital-.htm
13	STRUČNÉ VYMEZENÍ DIGITÁLNÍ GRAMOTNOSTI A INFORMATICKÉHO MYŠLENÍ	http://archiv-nuv.npi.cz/t/strucne-vymezeni-digitalni-gramotnosti-a-informatickeho.html
14	Digitální gramotnost v kontextu současného vzdělávání	https://pages.pdf.cuni.cz/gramotnost/files/2019/01/01_Jerabek.pdf
15	Analýza systémů a nástrojů pro podporu cíleného rozvoje digitální gramotnosti	https://portaldigi.cz/wpcontent/uploads/2019/05/Vystup_1_system_podpory_CR_final.pdf
16	ZNALOSTNÍ A UŽIVATELSKÁ SPECIFIKA DIGITÁLNÍ KOMPETENCE UČITELŮ VĚD O ČLOVĚKU A SPOLEČNOSTI VE STŘEDNÍM ODBORNÉM VZDĚLÁVÁNÍ	https://lifelonglearning.mendelu.cz/media/pdf/LLL_20201002175.pdf
17	Od digitální gramotnosti k infromatickému myšlení - koncepce, obsah a realizace výuky informatiky z pohledu jejich aktérů	https://www.researchgate.net/publication/337224633_Od_digitalni_gramotnosti_k_informatickemu_mysleni_-_koncepce_obsah_a_realizace_vyuky_informatiky_z_pohledu_jejich_akteru
18	Digitální gramotnost v uzlových bodech vzdělávání	https://www.vzdelavacisluzby.cz/dokumenty/banka-souboru/2006205.pdf
19	ICT - Rozvoj digitální gramotnosti ve výuce	https://www.youtube.com/watch?v=VSXKhg5Y1L0

20	Náměty k digitální aplikaci metodik	https://rskuk.cz/files/IKAP-A/Sborniky_synteza-OPVK/Sbornik-Digitalni-gramotnost.pdf
21	Jak budovat digitální kompetence žáků základních a středních škol využíváním metod a nástrojů GIS	https://download.arcdata.cz/konf/2019/prednasky/prezentace-PDF/Smida_TUL_web.pdf
22	Digitální kompetence: zásadní dovednost 21. století pro učitele a studenty	https://www.schooleducationgateway.eu/cz/pub/resources/tutorials/digital-competence-the-
23	Digitální kompetence učitelů	https://digitalnikompetence.cz/digitalni-kompetence-ucitelu/
24	Vymezení digitální gramotnosti	https://digigram.cz/vymezeni-digitalni-gramotnosti/
25	Digitální kompetence PortálDigi	https://www.estudovna.cz/cz/seznam-digitalni-kompetence.html
26	MÍSTO PRO ROZVOJ VAŠICH DIGITÁLNÍCH DOVEDNOSTÍ	https://www.evaldo.cz/

Table 8. An overview of selected OER related to digital and IM competences in Croatian

A/A	Title	Link
1	Javno dostupni e izvori:	https://gkr.hr/Magazin/Digitalni-gust/Otvoreni-pristup-uvijek-koristan-a-trenutno-zlata-vrijedi
2	portal elektroničkih izvora za hrvatska znanstvenu zajednicu	http://baze.nsk.hr/
3	digitalni repozitorij Instituta za povijest umjetnosti	https://podest.ipu.hr/
4	virtualna zbirka Sveučilišta u Zagrebu	https://unizg.eindigo.net/
5	digitalna zbirka ekonomskog fakulteta	https://ebook.efzg.hr/digital/library/
6	digitalni repozitorij medicinskog fakulteta Sveučilišta u Zagrebu	https://repozitorij.mef.unizg.hr/islandora/object/mef:3940
7	digitalne zbirke NSK	https://www.nsk.hr/category/zbirke/
8	Sveučilišna knjižnica Rijeka	https://libraries.uniri.hr/aneu/search.html
9	Sveučilišna knjižnica Split	http://libar.svkst.hr/aneu/search.html
10	portal znanstvenih i stručnih časopisa	https://hrcak.srce.hr/
11	hrvatska znanstvena bibliografija	https://www.bib.irb.hr/
12	pretraživač elektroničkih izvora online – PERO	http://lib.irb.hr/utility/pero/
13	Muzejski dokumentacijski centar	https://mdc.hr/hr/mdc/zbirke-fondovi/
14	Digitalne zbirke Knjižnica grada Zagreba	https://digitalnezbirke.kgz.hr/
15	Digitalna zbirka HAZU	https://dizbi.hazu.hr/a/
16	Repozitorij Prirodoslovno-matematičkog fakulteta	https://repozitorij.pmf.unizg.hr/

17	Repozitorij Fakulteta strojarstva i brodogradnje, Sveučilište u Zagrebu	https://repozitorij.fsb.unizg.hr/
18	Digitalni repozitorij Sveučilišta Sjever	https://repozitorij.unin.hr/
19	Poliklinika za rehabilitaciju slušanja i govora SUVAG	https://repozitorij.suvag.hr/
20	Kineziološki fakultet Osijek	https://repozitorij.kifos.hr/

3.2. Recommendations for an innovative educational intervention

Drawing upon the existing publicly available resources- materials and existing evidence for designing an effective intervention we proceed in this section of our report to some suggestions and recommendations for a future educational intervention in the area of IM. In specific, we conclude that a future intervention should consider the following:

- incorporate evidence through literature search and theory.
- engage users and stakeholders during modules and intervention development including e-Toolkit.
- consider instructional design and testing including how the learner is guided effectively to the content and given meaningful feedback.
- incorporate features that accommodate different cultural pedagogy and learning styles to prevent learners from feeling lost or feeling dissatisfied with the online learning experience.
- recognize, appreciate, and cherish cultural differences, while avoiding cultural stereotypes to create a more welcoming environment for international students.
- contain a main well structured module in the area of digital literacy and ICT.
- contain modules in other areas of IM competences including literacy competence, multilingual competence, mathematical competence and competence in science, social and learning to learn competence, citizenship competence, entrepreneurship competence, cultural awareness and expression competence.
- incorporate modules in one e-Toolkit with the use of online digital platforms so that the educational material will be available in open access to groups.
- include OER so that all learners will have access to, in rural or urban areas and with no economic resources.
- expect for minimal technical knowledge and computer skills as each learner's technology experience will vary.
- develop a robust evaluation method in order to assess intervention and e-Toolkit effectiveness.
- state clear expectations and include examples and summaries when possible for each module to help avoid miscommunication, assumptions, or ambiguity.