EUTOPIAFLECSLAB
Flexible LEarning Communities Supporting Lifelong Learning Across Borders

Co-funded by the Erasmus+ Programme of the European Union

FLECSLAB Toolkit
Flexible Learning Communities Supporting Lifelong Learning Across Borders

GUIDELINES
for academics and
public sector partners
in Lifelong Learning

LLL Toolbox:
specialized instruments for
HE institutions open to
non-modal learners

WITH THE COLLABORATION OF:

upf. Universitat Pompeu Fabra Barcelona

UNIVERSITY OF GOTHENBURG

CY CERGY PARIS UNIVERSITÉ

WARWICK THE UNIVERSITY OF WARWICK

Univerza v Ljubljani

VUB VRIJE UNIVERSITEIT BRUSSEL

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Project information

Title Of The Project
Flexible Learning Communities Supporting Lifelong Learning Across Borders

Acronym
FLECSLAB

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Subject
KA220-HED-21/21

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Duration
36 months (until December 2024)

Budget
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Partners
Vrije Universiteit Brussel (Belgium) (VUB)
CY Cergy Paris University (France) (CY)
University of Gothenburg (Sweden) (UG)
University of Ljubljana (Slovenia) (UL)
Universitat Pompeu Fabra (Spain) (UPF)
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EUTOPIA Alliance

EUTOPIA
Alliance of 10 European Universities

EUTOPIA is an alliance of 10 European universities: the **Babeș-Bolyai University** (Romania), the **Vrije Universiteit Brussels** (Belgium), the **Ca'Foscari University of Venice** (Italy), **CY Cergy Paris** Université (France), the **Technische Universität Dresden** (Germany), the **University of Gothenburg** (Sweden), the **University of Ljubljana** (Slovenia), the **NOVA University Lisbon** (Portugal), the **Universitat Pompeu Fabra** (Spain) and the **University of Warwick** (United Kingdom).

According to its mission statement (https://education.ec.europa.eu/) EUTOPIA is an "inclusive, challenge-led alliance aiming to become, by 2030, a multicultural, confederated operation of connected campuses'' which aims to "connect communities across our campuses in order to transform our universities into open, inclusive, diverse, and innovative enablers for outreach impact on societies''. As part of the European Universities Initiative, si EUTOPIA is committed to developing a new model for European integrated higher education institutions through transnational cooperation.

EUTOPIA is also associated with **six** universities beyond Europe: ***Universidad de los Andes*** **(Colombia),** ***Arizona State University*** **(USA),** ***Kyungpook National University*** **(South Korea),** ***Monash University*** **(Australia),** ***Université Internationale de Rabat*** **(Morocco)** and ***Stellenbosch University*** **(South Africa)**.

The diverse nature of this network of Global Partnerships not only allows the EUTOPIA alliance greater scope when addressing current and future planetary challenges but also goes towards building in the long term a “unique and daring alliance of transformative and engaged institutions”.

As part of their commitment to always improving the standards of teaching and research for the benefits of students and stakeholders, the universities of the EUTOPIA alliance collaborate to support innovative teaching methods, present novel educational frameworks and launch bold research ideas.

An example of such collaboration and connectedness is the FLECSLAB project presented here. From the 10-strong alliance, the 6 universities which have joined together for the FLECSLAB project are: Vrije Universiteit Brussel, University of Ljubljana and the University of Warwick (which form the Core coordination team) along with Cergy-Paris Universite, the University of Gothenburg and the Universitat Pompeu Fabra (Barcelona), the institution charged with the Lifelong Learning Toolkit presented here.

EUTOPIA is committed to the building of an Open Campus agenda where inclusiveness towards all types of students is strongly fostered. It is precisely this inclusive, transversal, challenge-based philosophy that fits with the Lifelong Learning approach represented here by the FLECSLAB initiative in its allegiance to “ensure bottom-up input and engagement by all its communities: staff, students and external stakeholders”.

Figure 2. EUTOPIA international partners.

Figure 1. EUTOPIA in numbers.

298 303
STUDENTS

184 003
UNDERGRADUATE

45 498
STAFF

23 700
ACADEMIC STAFF

91 518
MASTER

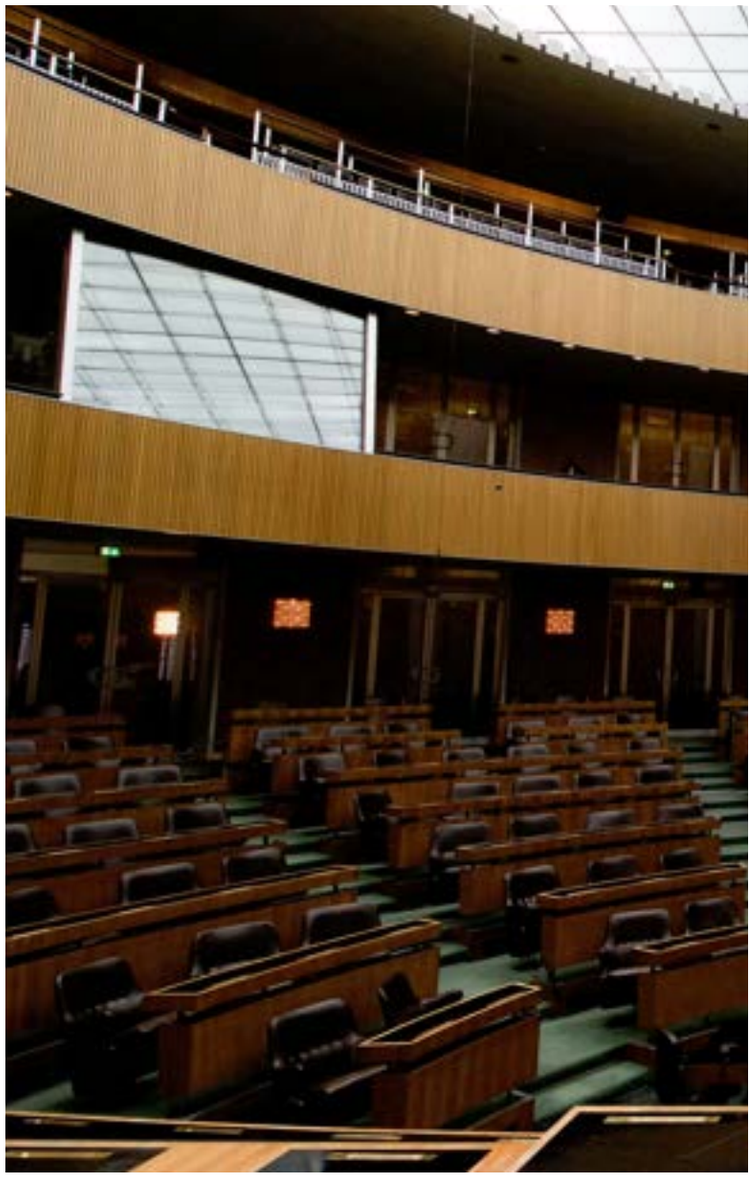
22 782
PhD

139
FACULTIES

PART I

The FLECSLAB Project & Lifelong Learning

Flexible Learning Communities Supporting Lifelong Learning Across Borders



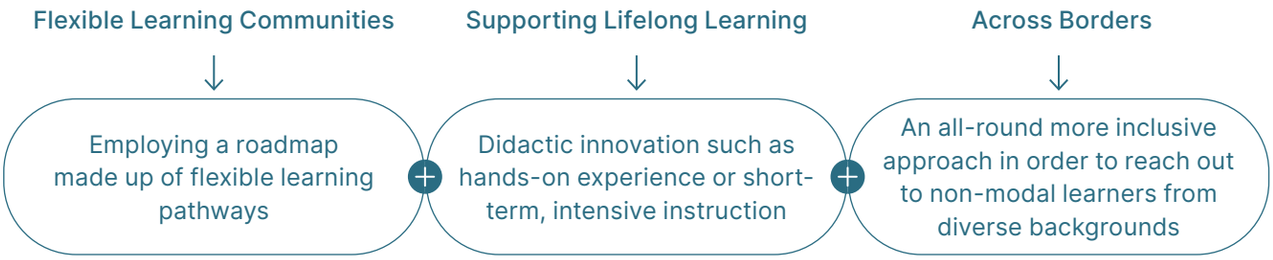
BACKGROUND OF THE PROJECT

In November 2021 the six founding member universities of the EUTOPIA alliance were awarded funding under the Erasmus+ programme (KA220-HED-Cooperation partnerships in higher education) for a project entitled "***F**lexible **L**earning **C**ommunities **S**upporting **L**ifelong **L**earning **A**cross **B**orders*" to provide a response to the challenge set by the European Commission Lifelong Learning (LLL) directives in this field. According to the project management manual:

> The universities of EUTOPIA, launching this key action, offer a response to the European Commission and the Lifelong Learning (LLL) ambitions plans by developing flexible mechanisms that recognize short-term intensive learning efforts in a transnational context (and) a more inclusive approach to meaningful international learning that enables science to reach a broad range of lifelong learners from diverse backgrounds and across disciplines.

The driving idea behind this initiative stems from the recognition that despite radical changes in Higher Education (HE) demographics, current HE models have a limited capacity for accommodating LLL students. As with many higher education institutions, EUTOPIA is not really oriented towards accommodating lifelong learners and doors are very often closed to these target groups. The launch of the FLECSLAB initiative aims to open these doors. It addresses this changing learner landscape by:

In a wider sense, the project aims to extend the work of learning communities in terms of **international networking of best practices in active learning**, to contribute towards **filling the LLL vacuum** at higher education institutions and to defend an underlying **philosophy which ties the learning experience to the societies that are around us**.



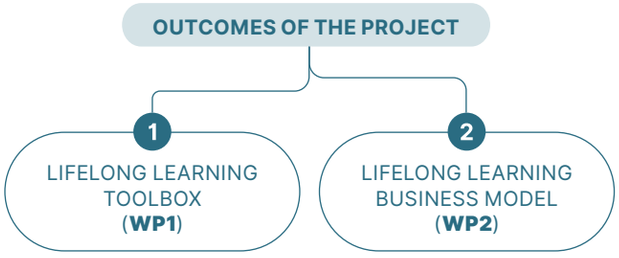
FLECSLAB – MAIN OBJECTIVES & SPECIFIC REMIT

FLECSLAB aims to extend the network of best practices in active learning by delivering a framework within which to improve training processes and non-modal educational experiences through the **application of the LLL philosophy** and by providing a **well-tested implementation tool** which can explore the potential of the EUTOPIA alliance for guaranteeing a more substantial LLL offer to non-traditional learners based on existing components of their curricula. The project introduces and pilots formats that HEIs can implement, alongside traditional degrees, for diversifying their LLL portfolio through a transdisciplinary and multi-institutional approach to continued academic learning.

FLECSLAB GOALS

1. Facilitate non-modal learning experiences through LLL philosophy
2. Create instruments or "educational toolkit" for non-traditional learners at HE institutions
3. Revision of traditional learning formats
4. Remedy the deficiencies in LLL opportunities at HE institutions through flexible learning pathways and social innovation
5. Develop a business model to allow Eutopia Alliance members to sustain their LLL initiatives

In order to reach these goals, two main Work Packages are foreseen for the project team to produce a series of resources to help HE practitioners and policy makers develop LLL pedagogies:



- **Lifelong Learning Toolbox (WP1):** a compilation of specialized teaching initiatives for HE institutions that caters to non-modal or non-traditional learners.

- **Lifelong Learning Business Model (WP2)** through which the project aims to introduce a sustainable business model that will allow partner universities to maintain a high quality and innovative offer in the field of LLL. According to the Project Management Manual this model:

  will be developed based on a benchmarking exercise that will examine useful formats and tools developed across Europe and evaluate them in relation to project goals and outcomes. The business model will consist of a set of sustainability scenarios, feasibility studies and strategy papers describing the conditions needed to develop and deliver the different LLL formats in a sustainable way. In that sense, guidelines and training for academic staff will be advanced and developed thus providing the HE sectors with case studies whose tools and business models can be extrapolated for all transnational alliances willing to open up their curriculum offering towards a range of non-traditional learners.

Our task at hand refers to **WP1 (Lifelong Learning Toolbox)** and the remit here is the provision of a series of resources and ideas to help higher education practitioners and policy makers in their development of pedagogical blueprints for lifelong learning initiatives. While the "toolbox" aims to offer some across-the-board options which may be implemented by a selection of the 12 EUTOPIA learning communities (LC)

PROJECT RESULT 1: DELIVERING AN ANALYTICAL INSTRUMENT ALLOWING TO EXPLORE THE LIFELONG LEARNING POTENTIAL OF TRANSNATIONAL LEARNING COMMUNITIES

Partner	Subtasks	Methodology
VUB	◗ Manage activities and organizes the links with the pedagogical experts of all partner universities.	Collect feedback and guidelines from committee of experts in adult learning
		Monitoring outcomes and outputs
		Organization of 3 workshops with international pedagogical experts
		External outreach event in collaboration with the European Economic & Social Committee with the support of Lifelong Learning Platform
UW	◗ Research the social networks/ ecosystems surrounding the LC for identifying the optimal match between learning formats and needs in the sectors involved	Selecting a sample of 12 testbed Learning Communities piloting diverse LLL formats based on a core asset analysis
		Survey of the 12 testbed CLCs documenting their potential and barriers perceived for LLL activities
UPF	◗ Responsible for mapping best practices in active learning in the alliance ◗ Prepare the training package for teachers willing to address adult and lifelong learners	Setting a grounded framework supporting the design and delivery of such educational offerings and a series of hands-on materials allowing to train HE departments interested in developing lifelong learning opportunities within and beyond the EUTOPIA Alliance

Table 1. Lifelong Learning Tool remit (Project Management Manual)

some aspects will have to be finetuned when dealing with the LC in question and their outputs and outcomes monitored. The monitoring activities will enable us to develop a **well-tested and documented portfolio of LLL formats** that address different disciplines and sectors, a **sound framework to support the design and delivery** of such educational opportunities, and a **set of practical materials** to train higher education (HE) departments interested in developing LLL opportunities both within and outside the EUTOPIA Alliance.

In more specific terms the LLL toolbox should help to:

- design a **tested multimedia toolkit** and **training modules** to support educators and trainers for adapting LLL formats to diverse disciplinary and societal fields. The tool will be designed by:

STEP 1 Working with a selection of the EUTOPIA Learning Communities.

STEP 2 Piloting diverse LLL formats.

STEP 3 Monitoring the outcomes and outputs to allow us to develop a portfolio of LLL formats relating to diverse disciplinary fields and sectors.

STEP 4 Creating a series of hands-on materials for HEI interested in developing LLL within and beyond the EUTOPIA alliance.

- to learn from the experiences of those students embedded in the CLCs and in consequence provide an adaptable roadmap based on **tangible designs** that the Higher Education sector can adopt and that will meet the needs of non-traditional students identified in the ecosystems of the learning communities. In this sense FLECSLAB may be the first project to provide the HE sectors with such an intensive set of cases and to extrapolate the tools for all transnational alliances willing to open up their curriculum offering towards a range of non-traditional learners.

- to create the **testing environment** for European universities interested in building an inclusive LLL offer based on the best active learning practices in their curricula.

- to provide for **multiplier events** to ensure both the instruments are usable to a wider audience of educators and policymakers.

PROJECT RESULT 1: Lifelong Learning Toolbox (VUB)(1.1.2022-31.12.2024)

1. Deliver a multimedia toolkit supporting educators and trainers for adapting LLL formats aligned with diverse disciplinary and societal fields.
2. Suggesting a roadmap and tangible examples and designs with the associated tools that the sector can adopt.
3. Create the testing environment for all European university alliances interested in building an inclusive LLL offer based on the best international practices in their present curricula training modules and guidelines for supporting teachers staff.
4. Multiplier events E1 & E2 to ensure it is usable to a wider audience of educators and policymakers across Europe.
5. A finalized version of the toolkit will be made available on the EUTOPIA website, so that remains available beyond the timespan of the project.

Table 2. Projected results.
Source: FLECSLAB Management Manual.

METHODOLOGY

In order to achieve both the wider and the more specific objectives, the FLECSLAB team adopted a methodological approach based on three lines of enquiry:

1. **Three from a total of 12 EUTOPIA Connected Learning Communities** (CLCs) —one corresponding to each annual launch from 2021, 2022 and 2023— were selected as **testbeds** to **identify good practices & conditions that need to be fulfilled for covering the needs of LLL.** Each of the CLCs corresponded to one of the three main learning ecosystems, namely:

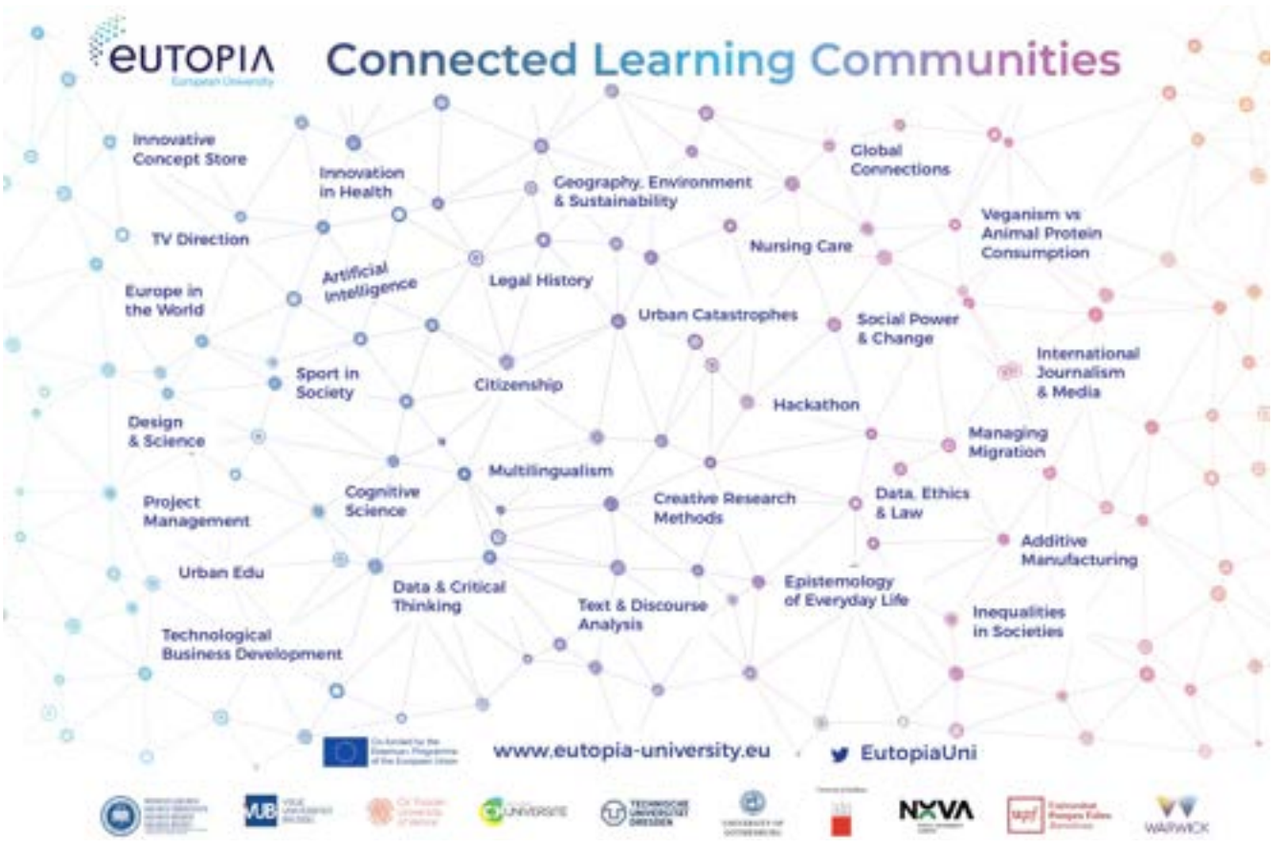
   1 = a robust, highly structured model with clear parametres (e.g. Urban Education)
   2 = a mid-strength model with some room for manoeuver (e.g. Design and Science)
   3 = a fragmented or "scattered" model (e.g. International Journalism & Global Media)

The 12-strong body of Connected Learning Communities aims to link **best teaching practices in open and active learning** across the EUTOPIA universe:

By drawing on the CLC building blocks within the EUTOPIA alliance, FLECSLAB will create a **specialized instrument for HE institutions** which goes beyond the demand of conventional degree-seeking students and opens up to non-traditional learners looking for renewed learning experiences. By way of example and in the specific case addressed later here, this tool will include **guidelines and training modules to support academic staff** when addressing senior (60+) adult learners.

2. Semi-structured in-depth **interviews** were registered with the **Lead of each of these CLCs** to discuss their adaptability to the LLL model. These recordings were then transcribed and analyzed by the FLECSLAB Core Coordination Team and made available online to researchers. The comments made by the Leads during these Q&A sessions were also examined by the **European Education Experts (EEE)** committee.

3. The **EEE** also had an additional consulting role to play here regarding the **development of the educational model** (both dimensions + descriptors) underlying FLECSLAB. These comments were circulated among all the partners and openly discussed in team meetings throughout 2022-2024.



TARGET GROUPS

The FLECSLAB project aims to reach out to three main groups:

- **International public of non-degree seekers or non-traditional students** who wish to participate in and benefit from opportunities primarily designed for full time study. These students can be reached through the existing CLCs —for example, as part of senior study programmes within the HEI— but also outside the partnership by reaching out to non-modal students and offering them flexible learning solutions to both upskill and reskill. Such practices may include the revision of traditional learning formats and the coordination of short term learning experiences which, in the case of the non-modal learners, can lead to recognition through mechanisms such as study certificates which run parallel to the mainstream curricula and regulated undergraduate degree programme.

- **European Universities, pan-European alliances and all EU Higher Education Institutions** interested in providing and developing a lifelong learning teaching portfolio and learning opportunities are a core target group to be reached

- Due to its focus on active learning and transdisciplinary topics, FLECSLAB will actively **involve multi-stakeholders outside academia** and **operating in the social context of the learning communities**. The interinstitutional and transdisciplinary nature of the offer along with the co-creation of formats and tools may interest employers at the demand side and facilitate their cooperation with HEI as part of their response to the LLL needs of citizens and professionals.

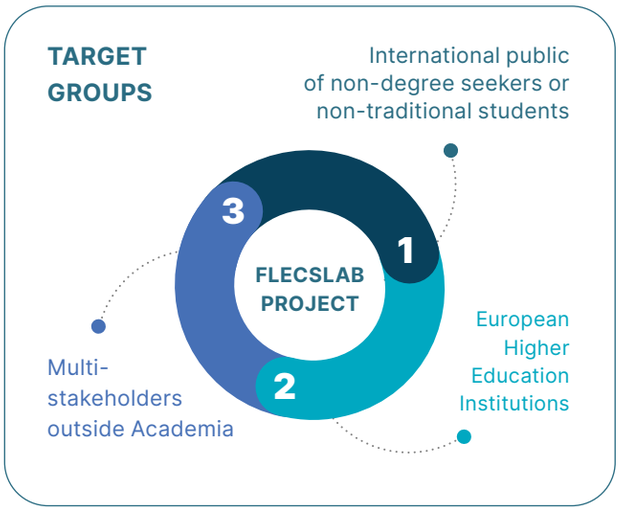


Figure 5. FLECSLAB target groups.

Figure 3. EUTOPIA Connected Learning Communities.

Figure 4. Presentation of pilot model before members of the EEE. (Barcelona, March 2024)

Figure 6. European University alliances.

When it comes to stakeholders, the aim here is to explore scenarios for flexible learning patterns with the help of major stakeholders in society who may exercise some responsibility for further education and employment in a European context. In that sense FLECSLAB distinguishes between:

- Stakeholders at **intra-alliance** level: course instructors, participating students in CLCs and the extra-academic partners of the EUTOPIA partner universities.

- Stakeholders at **extra-alliance** level: other European University alliances, policy-makers and civil society.

- **Associated partners**: relevant non-academic actors from the business world, the cultural sector and public organizations are invited to actively participate in the learning process and to nourish learning materials by bringing active teaching techniques as well as "real-life" issues and challenges to the table.

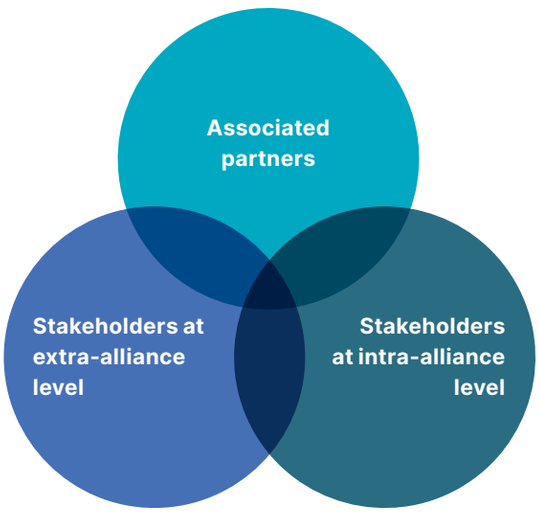


Figure 7. FLECSLAB Stakeholders.

ECOSYSTEMS

These ecosystems are resulting from the analysis of the 12 testbed CLC in a sequence of workshops organized by the president of the Education Experts Committee. The results of this testbeds

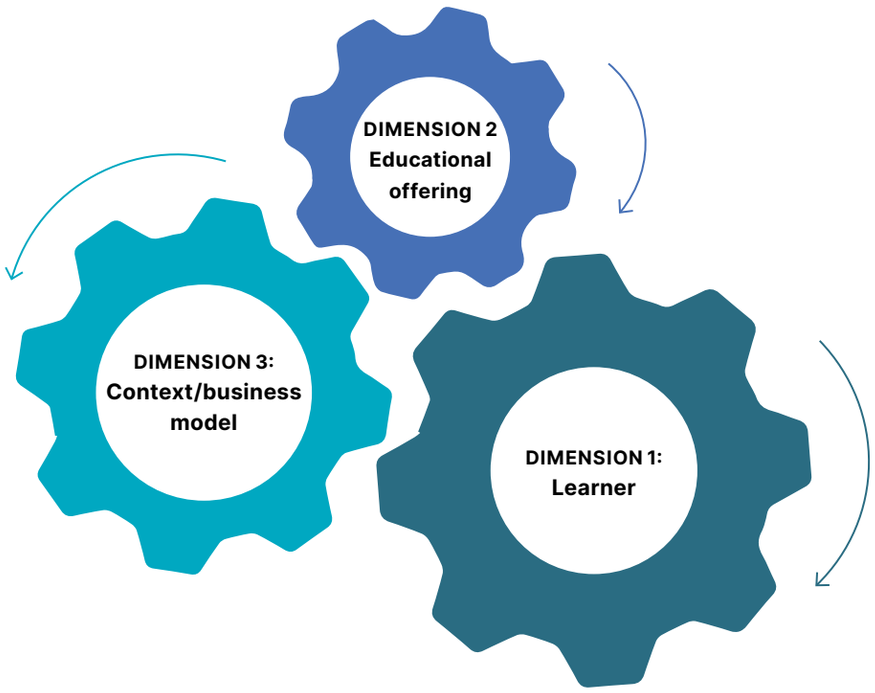
The form in which a Lifelong Learning project can develop depends on three main factors:

1. **Context**: the level to which there an organizational / institutional network dedicated to and invested in carrying out lifelong learning activities in the sector at hand

2. **Educational offering**: under which educational umbrella are training programs carried out? Private or public institutions? HEI or competitors such as ad hoc learning centres or professional colleges/ unions/guilds?

3. **Learners**: How well have we targeted our learners? Have the HEIs correctly identified who these programmes are intended for and does the educational offer serve their needs?

In many ways, these factors determine what type of didactic ecosystem exists in each sector and the coherence and interaction between these 3 dimensions (learner / educational offering / context) increases the chances for a sustainable contribution of the connected learning communities to LLL. For our purposes here and backed by the results of the interviews with the testbed CLCs three prototypes of Lifelong Learning ecosystems have been projected:



Category 1:
The REGULATED ecosystem

Category 2:
The STRUCTURED ecosystem

Category 3:
The SCATTERED ecosystem

1 = a robust, **highly regulated** model with clear parametres
2 = a **semi structured model** with some room for maneuver
3 = a **fragmented** or "scattered" model

Each of the three pilot test proposals presented here responds to a type of ecosystem. In order to prepare academic staff for LLL engagement, the toolkit must cover each of them accordingly.

The contrasting profile of each of these ecosystems helps us to decide which LLL proposal fits most adequately during the implementation process.

For example, in those cases where LLL programs already exist and have strong institutional or stakeholder support —such as in the case of the highly regulated model 1 and well structured model 2— it may be more productive to adopt evaluation methodologies for their implementation unlike model 3 which —due to its comparatively disperse nature and barely non-existent institutional support— may require pilot tests to monitor its development. To clarify this classification and the characteristics of each ecosystem further details can be seen here:

1. THE REGULATED ECOSYSTEM

LEARNERS: well identified // controlled by regulations imposed by public authorities and/or professional organizations // tendency to look for short programs to combine professional and family related responsibilities

EDUCATIONAL OFFERING: emanates largely from HEI which provide the initial degree required for entering the profession // targets learners who aim to update their skills and offers full degrees / bridging programs creating access to the profession for non-modal entrants

CONTEXT / BUSINESS MODEL: Stable contracts between regulatory authorities / professional organizations // Limited competition in this LLL segment // resources given to suppliers often do not cover needs and full cost of the educational offer

CLC PROTOTYPE: "URBAN EDUCATION": The Connected Learning Community entitled "Urban Education" can be considered as the blueprint for this regulatory and highly structured ecosystem. Ideas related to this CLC are fully outlined in Part III (Pilot Test 1) of this report.

2. THE STRUCTURED ECOSYSTEM

LEARNERS: Driven by self-perceived needs or ambition to widen/update competences acquired in the initial degree // Learner is more difficult to identify but the ecosystem signals the needs (e.g. statements by employers organizations / signs of mismatch on the labor market / implementation of new technologies, etc)

EDUCATIONAL OFFERING: In HEI the offer usually takes the format of (short) programs at postgraduate level // LLL segment is a competitive one and non-academic players have an important part of the market

CONTEXT / BUSINESS MODEL: Permanent facilities giving access and visibility to the educational offer (e.g. business schools and more recently living labs) // sustainable approach often characterized by intensive cooperation between academia and stakeholders (public or private)

CLC PROTOTYPE: " DESIGN AND SCIENCE" The Connected Learning Community known as "Design and Science" is considered as a prototype for this semi structured ecosystem and is further discussed in Part III as Pilot Test 2.

3. THE SCATTERED ECOSYSTEM

LEARNERS: Similar to the characteristics of the structured ecosystem; driven by self perceived needs + difficult to identify // signals of nature of LLL needs less clear compared to structured model // lobby groups related to the ecosystem are less organized and less powerful

EDUCATIONAL OFFERING: In this ecosystem the offer is not structured and is "hidden" in learning components spread across a wide variety of degree programmes

CONTEXT / BUSINESS MODEL: Lack of institutional approach = more difficult to bridge the potential of HEI and needs of learners // private and online competitors organize ad hoc offering often focusing on "trendy" skills + use of academic experts to develop packages

CLC PROTOTYPE: The research team considered the informal nature of model 3 as the corresponding ecosystem for the CLC known as "International Journalism". This is evidenced by the characteristics of the learning cohort in question —senior learners with considerable age differences, backgrounds and motivations— the lack of cohesion among lobby groups and the increasing competition of ad hoc parallel educational offers.

The findings related to these 3 prototypes will enable us to formulate a series of guidelines for academic staff willing to engage in lifelong learning.

LIFELONG LEARNING: A BRIEF RECENT HISTORY AND CURRENT STATE OF THE DEBATE

Lifelong Learning is a concept that refers to the idea that learning is not limited solely to the formal context of high school or university-level studies but should form part of a continuous, integral socio-educational process. This philosophy was sponsored by supranational organizations such as the OECD since the mid-90s —when Jean Claude Paye. General Secretary of the Organization published the book *Making Lifelong Learning a Reality for All*— and took on greater importance in the United Kingdom when the *National Advisory Group for Continuing Education and Lifelong Learning* was formed, under the chairmanship of Professor Bob Fryer, expert and promoter of LLL, as well as the introduction of participatory processes in the educational field. In the first report on the state of Lifelong Learning in the UK, Fryer (1997) highlighted:

> "The country needs to develop a new culture of learning, a culture of lifelong learning for all. It is

essential to help people to adapt to the constant changes of working and social life".

The promoters of Lifelong Learning consider that learning is not only limited to the knowledge acquired from the formal classroom phase but also includes adaptation to change and the acquisition of new skills. This acquired knowledge can be focussed on the demands of the labour market and the improvement of individual work skills, or they can be focused towards personal well-being or private motivations. LLL encourages learning beyond the margins of formal education and takes on various informal and innovative modes of instruction. It can include learning on the job, participation in courses, workshops, seminars, readings, shared community activities and study trips, among others. The benefits of lifelong learning include personal enrichment, development of social skills, adaptability, increased employment opportunities and improved quality of life in general. It is also important in a constantly evolving society, where knowledge and skills become obsolete faster, and continuous learning allows the student to stay updated and competitive in the job market.

Definitions aside, the need to import LifeLong Learning into society has been documented in detail. Over three decades ago, Candy (1991) remarked that in order to incorporate LLL individuals should meet the following requirements: personal autonomy; willingness and ability to manage one's overall learning endeavors; independent pursuit of learning without formal institutional support or affiliation and learner-control of instructions. Towards the end of last century, major efforts were made to create an optimal environment for the integration of mechanisms for adult training in our societies This **lack of formative culture** was highlighted by Tannenbaum (1998) who in his research based on a study of more than 500 individuals, showed that when the sources of education were varied those who made use of them did not fit into any specific profile, evidencing the lack of structuring of LLL tools.

As we entered the 21st century, the attention had shifted towards **empowering individuals to take charge of their own learning across diverse contexts** over the course of their lives (Sharples, 2000, Field, 2006). In that sense, Claxton (2000) spoke of a "triple R" when it comes to LLL: resilience, resourcefulness and reflectiveness. In addition to institutional efforts to create this conducive environment for LLL, two game-changing factors greatly increased the focus on education in

Figure 8. Cover of "Learning for the Twenty-First Century".

Figure 9. Cover of The Economist (January, 2017).

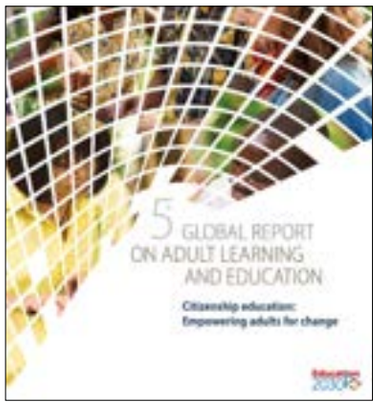


Figure 10. Reports about the current state of Lifelong Learning.

adult stages: the **2008 economic crisis which boosted all forms of education,** whether formal or informal (e.g. Master degree enrollment increased by 742% in Spain between 2007 and 2015), and the **introduction of online courses facilitated remote learning**.

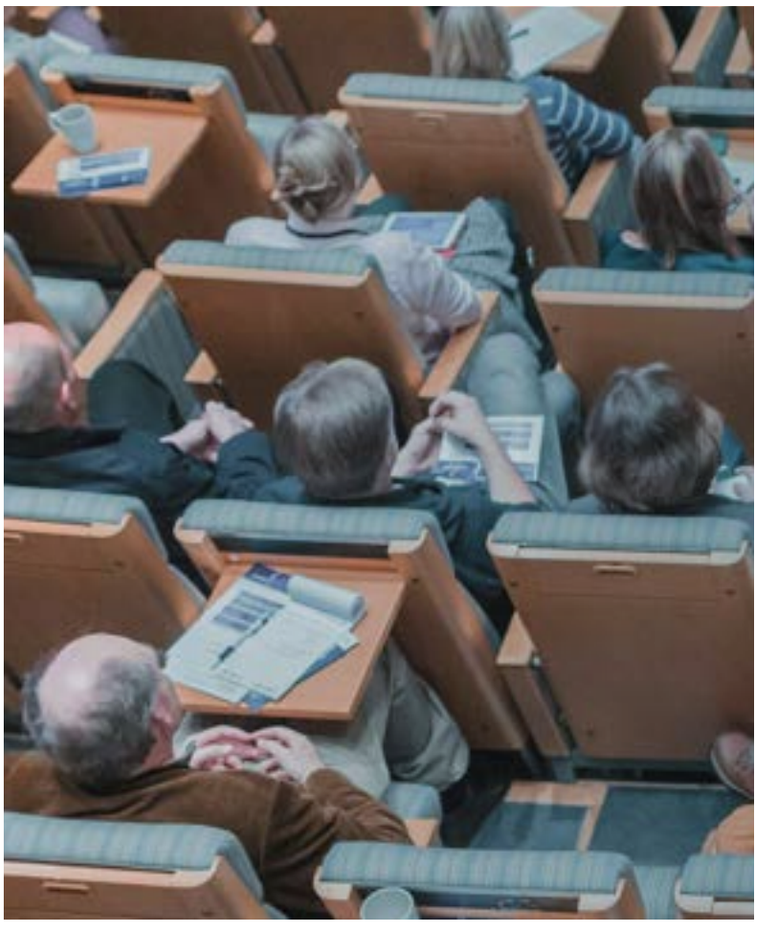
As a result of these socioeconomic circumstances the expansion and widespread implementation of LLL initiatives took off from around 2015 onwards. So much so that the prestigious magazine *The Economist* dedicated its January 2017 front cover to this story entitled "Lifelong learning is becoming an economic imperative" in which it highlighted the importance of acquiring new skills given the rise of digitalization.

The Economist feature from 2017 highlights the correlation between education and economic benefits and publishes academic literature which suggests that each additional year of schooling is associated with a 8-13% increase in hourly earnings (Card, 1999). The magazine questions whether the HEI properly prepares students for the professional field and highlights the need for training that adapts to the demands of the contemporary labour market. It goes on to argue that these factors create an optimal situation for the consolidation of Lifelong Learning given that LLL prepares learners for today's workplace through short and multi-format courses based on updated contents.

Following on from this a report made by the Pearson company (2020) concludes that 54% of today's workplaces will need to incorporate upskilling and reskilling processes in 2025, mainly in the field of technology. These updating protocols can be offered through digital micro-credentials, an ever-growing trend in the education landscape (Lang, 2023).

The introduction of Artificial Intelligence in the labour market has resulted in many jobs facing the threat of extinction given the reliance on digitization and robotization processes. Whilst this scenario may also present an opportunity to create 150 million technology-related jobs over the coming years (as indicated by a recent **World Economic Forum** report of 2023) this means that by 2030, digital skills will be a mandatory requirement for 77% of all potential job offers. For this reason, the WEF points to "Education 4.0" —a more inclusive lifelong experience through which students will be responsible for developing and updating their own abilities.

UNESCO takes a less market-oriented angle and considers Lifelong Learning not only as a global strategy



to improve training levels but also to combat social, economic and knowledge inequalities. It recognises that while there is a general consensus on the need for and effectiveness of LLL in contemporary society, it is not easy for these educational initiatives to reach all groups. In that sense, the *5th UNESCO Global Report on Adult Learning and Education-GRALE* (2022) points out that disadvantaged and vulnerable groups are often deprived of learning opportunities. In 23% of the 159 countries surveyed in the report, less than 1% of adults aged 15 or over participate in education and learning programmes while only 22% of countries spend more than 4% of their education budget on adult learning.

EUROPEAN ASSOCIATION FOR THE EDUCATION OF ADULTS

Figure 11. EAEA logo.

At a regional level the development of LLL in Europe is monitored through the **European Association for the Education of Adults.** EAEA is a European NGO with 120 member organizations in 43 countries. By representing more than 60 million learners Europe-wide, its main objective is to influence policies of non-formal adult education and lifelong learning strategies.

In their most recent published report of 2023 they expose 5 key trends emerging within adult education in Europe:

Table 3. 5 key trends emerging within adult education (EAEA).

1. **Civil society organizations** are the **most innovative actors** with new projects and initiatives on issues of the day, including the green transition, community building and inclusion.
2. National ALE policies focus mostly on employment and labour market needs. **Education for well-being and health, democracy and sustainability is less valued across Europe**, despite the scale of societal challenges like the green transition and the recent Covid-19 pandemic.
3. In most countries, **adult learners cannot participate in adult education policy making processes**.
4. Organizations that are members of EAEA **do not have the capacity and resources to apply their activity programme**.
5. **Insufficient levels of funding** for adult learning and education, especially at the national and local level.

Despite the structural and political difficulties in pushing the subject further up the public agenda, it is clear that LLL is finally taking off in comparison to previous years. This is not wishful thinking but is backed by European Commission statistics from (2023). These show that in 2022 an average of 11.9% of all people aged 25 to 64 in the EU had participated in education or training in the previous 4-week period: an increase of 2.8% in comparison to the data obtained prior to the Covid-19 pandemic. The proportion of the EU population who had participated in adult learning was higher among women (12.9% in 2022) than among men (10.8%) and women recorded higher participation rates than men in all EU Member states except for Romania and Slovakia.

Civil society is also driving LLL initiatives forward. A relevant example here is the **Lifelong Learning Platform (LLP)**. This organization platform promotes a holistic version of LLL and its vision is not based on the classic school-work-retirement pattern of formal education, but instead integrates non-formal and informal learning. LLLP has several working groups up and running, it participates in various civil society partnerships and takes part in those EU projects which aim to provide evidence and solutions to key educational challenges.

It goes without saying that many incipient areas in the field of LLL are currently being addressed by academia, institutions and civil society. Such studies include the effect of the Covid pandemic on online training and LLL programmes (Eynon & Malmberg, 2020), the need to focus on practical content on LLL programmes (Kilag et al. (2023) or the demands for upskilling due to the extension of the retirement age in many European countries (Lyngdal-Wulff et al. 2024).

Figure 12. LLP logo.

PART II

General Guidelines for the HEI-LLL Transition and Framework for a Lifelong Learning Toolkit

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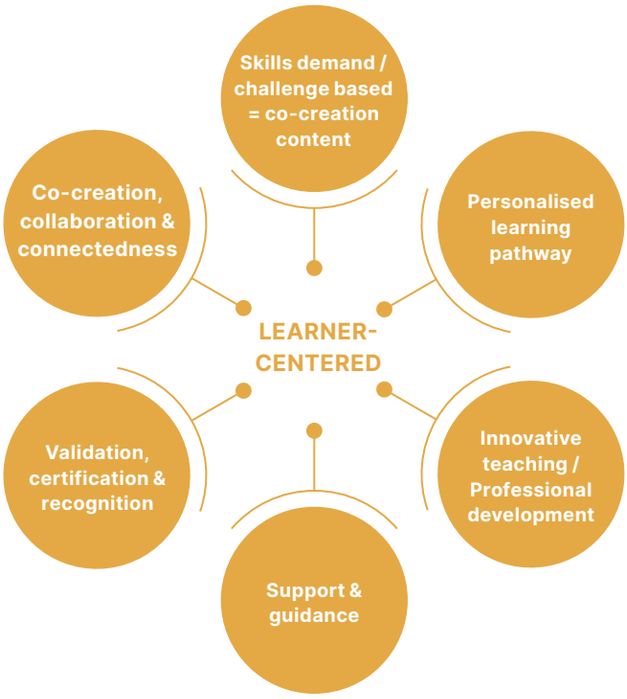
Specific Components of the Lifelong Learning Toolkit

General Guidelines for the HEI-LLL Transition and Framework for a Lifelong Learning Toolkit

One of the key derivatives of the creation of the Lifelong Learning Toolkit as a "*specialized instrument for all HE institutions going beyond the demand of degree seeking students and opening to non-modal learners looking for international learning experiences*" is the parallel production of strategies and professional development techniques for training academic staff willing to engage in lifelong learning.

The challenge presented by the FLECSLAB project is the co-creation of a Lifelong Learning Toolkit which draws on the teaching experiences and in-class activities of the Connected Learning Communities (CLCs). In order to obtain greater knowledge and to be able to extrapolate from these initiatives a collection of ideas which may be incorporated into a LLL teaching proposal such as that presented here, in-depth structured interviews were also held with some of the CLC Leads in which they were asked about their approach to LLL —examples include **active participation** through **innovative instruction** and the **piloting and monitoring**

Dimensions underlying the transformation of HE institutions into LLL institutions



of diverse formats— as well as further details regarding the potentiality of LLL initiatives within the ecosystem of their respective CLCs.

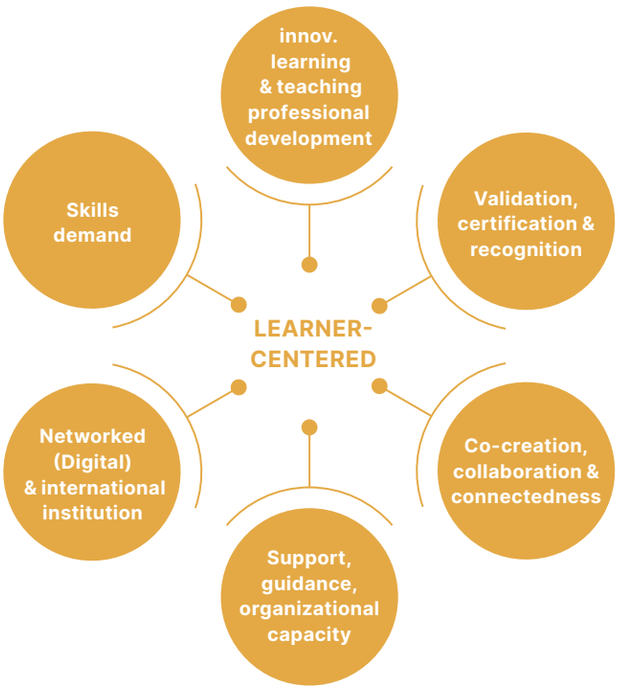
As mentioned beforehand, traditionally HE institutions have shown themselves to be hermetic when it comes to incorporating LLL initiatives so a challenge is to present a menu of proposals which circumvent such reticence through **flexible learning pathways**, socially innovative teaching techniques which are compatible with a changing learner-centred landscape.

This map —put together by the Core Coordination Team and the external Education Experts committee in March 2024— is based on interviews with the Eutopia CLC leads and their analysis of the HEI-LLL landscape as it stands. The map groups together six general dimensions that underpin the transformation of Higher Education Institutions into LLL institutions. Each of these themes was then further outlined in great detail in a technical factsheet by the EEE. Those CLCs included in the study comprise:

Entrepreneurship
Urban Education
Multilingualism & Diversity¡
International Journalism & Global Media
Veganism v. Animal Protein Consumption
Additive Manufacturing of Construction Materials
Strategic Innovation in Healthcare
Television Direction
Text and Discourse Analysis
Nursing in Complex Situations
Science & Design
IMPACT: Interdisciplinary learning platforM for sPort 4 sociAl Change iniTiatives

Table 4. Our 12 Eutopia CLC.

The driving concepts behind each aspect located on this map are highlighted here given their relevance to the Toolkit:



LEARNER CENTERED

- Teaching materials that align with the specific characteristics of the mature learner
- The focus on personal human development
- Rapid, flexible and participatory learning alternatives
- Open, self-regulated learning
- Focus on interaction and collaboration
- Personalized learning pathways based on individual interests and prior experience

INNOVATIVE TEACHING / LEARNING & PROFESSIONAL DEVELOPMENT

- Open educational resources (curricula, materials, resources...)
- Students actively cooperate with teaching staff in co-development and co-learning
- Co-working with peers / learners in identifying and formulating learning goals
- Focus on learning transfer to the real-life context: emphasize experiential learning; involve real life data and cases from real-life experiences
- Interaction with other stakeholders / community engagement
- Need to understand “adult learners plural cultural contexts”
- Extent to which course instructors can develop their LLL teaching skills
- Opportunities for innovative methods
- Finetune skills regarding diversity and needs of LL learners

VALIDATION, CERTIFICATION & RECOGNITION

- Validation of non-formal learning
- Importance of transversal skills
- Open assessment of learning outcomes
- Short programme credentials / study certificates

CO-CREATION,COLLABORATION & CONNECTEDNESS

- Openness to new ideas
- Develop an ecosystem whereby education, research and innovation combine
- Open education principles = HEI share practices and teaching approaches
- Collaborative curriculum and course design
- Experts noted need to embed a range of stakeholders within each LC ecosystem
- Outreach / community engagement
- Co-design, co-creation, co-teaching co-assessment at all levels of research and education
- Focus on transdisciplinarity and need to emphasize connectedness between research world, world of work and learning (1st round)

SKILLS DEMAND

- Transdisciplinarity necessary for development of transferable skills
- Need for analytical join-the-dots skills
- New TICs = digital upskilling
- Media literacy skills

SUPPORT, GUIDANCE, ORGANIZATIONAL CAPACITY

- Improved LLL governance: degree to which LLL teaching is embedded in the educational model of the institution
- LLL as central to the vision and not a side-line strategy
- Increase cost-effectiveness of possible LLL schemes (blended / peer learning)
- The fostering of a positive attitude culture towards LLL: the need to develop “good stories” around opening HEI to LLL institutions
- Targeted support towards vulnerable groups (e.g. migrants, elderly)
- Clear links with other education/training sectors (e.g adult training schools)
- The degree to which the learner is given centrality and autonomy
- Community engagement
- Extent to which HEI are equipped to facilitate LLL and teaching

NETWORKED (DIGITAL) INTERNATIONAL INSTITUTION

- The HEI fosters digital inclusive innovation
- Active support for use of digital technologies to enhance quality in teaching
- Use of communication channels learners are familiar with (e.g. social media)
- International perspectives reflected in HEI approach to teaching
- Interdisciplinarity
- Link to societal challenges

Specific Components of the Lifelong Learning Toolkit

Initiatives from the CLC Testbeds – Teaching Innovation and Flexible Learning Pathway

After having presented the general requisites for the transformation of a HEI into a LLL institution based on the identification of tendencies by educational experts the research team considered it necessary to shift the attention from these macro proposals to the details of the CLC teaching experiences themselves in order to visualize how some of these transformative "dimensions" play out in the learning communities and to make these driving ideas more tangible to staff, stakeholders and policy-makers alike. The ideas outlined here focus on innovation, flexible learning mechanisms, co-creation and the principles of open education with a view to their future incorporation into a Lifelong Learning proposal.

1. TRANSDISCIPLINARY APPROACH

The need for a **transdisciplinary approach** in order to tackle societal issues was stressed by many CLC leads. An appropriate example here is Entrepreneurship where knowledge of markets, technology, finance, human resource management, communication and design necessarily combine to move the student out of the business-orientated comfort zone.

A second relevant example here is International Journalism and Global Media whose lead explained that such a course involves incursions into geopolitics, international relations, history, economics and global studies. When justifying the transdisciplinary nature of the course content the Lead mentioned that "*today globalization processes force us to consider interrelated disciplines. Whereas before lifelong learners tended to put things in a "box" now they have recognised*

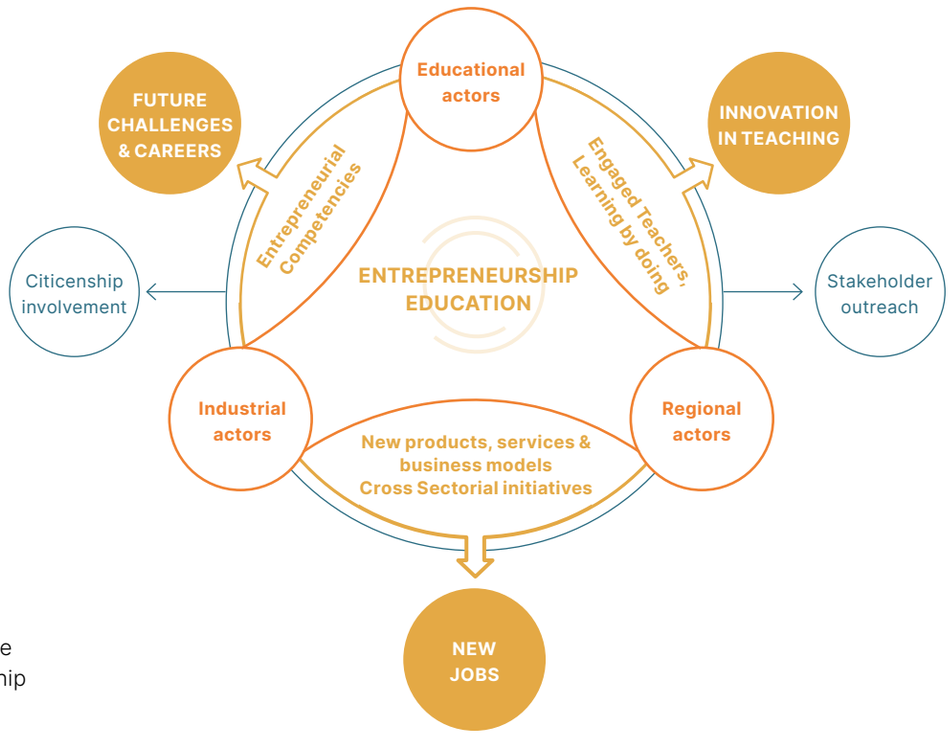


Figure 13. Scheme of Entrepreneurship Education.

the need for greater fluidity and connectivity between different fields". For Multilingualism and Diversity "interdisciplinary learning is key to exploring key issues, to championing diversity and cross-university collaboration, to transforming the learning experience and to contributing to building a new academic model".

A final example here is the Design & Science CLC which takes the form of a "*transdisciplinary* summer school focusing on building an understanding of visual communication design in correlation with various scientific fields" and which offers its students the opportunity to improve knowledge in the field/s of *synergy* between science and the arts, tackling the *interdisciplinary* fields where science enlightens the public and society through visual communication". As the CLC Lead told researchers, most co-creation nowadays is multidisciplinary and learning how to work together is invaluable:

> "We are not alone in the projects [...] the teams are really interdisciplinary (...) We need to inform ourselves as part of the team and we need to know the boundaries and how we can organize that process [...] That's why we need to understand the other professions. To learn in advance which professions are part of the team. [...] For example, the learning community [...] it's organized by merging the professions, with respect to each other, of course, but trying to build this through some kind of new environment, society, community." (DESIGN & SCIENCE)

2. GROUP-BASED TEAM LEARNING

Many CLCs opt for project-based learning in groups. This teaching approach —clearly favoured for example by the Fundamentals of Television Direction CLC— transforms the classic instructor-student relationship as teamwork is fostered as interests are fused to achieve a common and tangible goal: the production of television programmes and/or innovative audiovisual formats in general. Working in groups is fostered at Masters level too as in the case of the Technological Business Development group where "students from different programs work together in interdisciplinary groups to engage in a 'technological business development project'.

3. SEARCH FOR SOLUTIONS

Problem-solution combinations were found to be commonplace among the CLCs as part of their push for innovation. Urban Education is a flagship example in this case as it aims to develop solutions for metropolitan educational challenges. Along with ideas such as interdisciplinarity and collaboration, "solution" is the keyword in its course remit:

> **Interdisciplinary** student teams **collaborate** with urban schools (and possibly other stakeholders, in function of the self-chosen research topic) to analyse and/or **develop solutions for urban educational challenges** related to topics such as educational organization (Who organizes education?), school-community partnerships (The school as an island or as a network?), school infrastructure (Schools of/for the 21st century.), inclusive education (Pupils in boxes? A mosaic of diversity). By means of **collaborative** inquiry all steps of the research cycle are followed to analyse a specific situation (and in some cases suggest **solutions for specific challenges**).

Urban Education is not the only CLC to use this approach. Entrepreneurship and Innovation adopts an applied learning-by-doing approach and International Journalism students learn how to detect fake news and verify news sources through a problem / solution approach.

4. CASE STUDIES ON SOCIETAL CHALLENGES

The case study approach is also prevalent among the CLCs. Strategic Innovation in Health Care is led by a professor with extensive experience of operational management at local and national level who aims to address "pressing problems" and works on "real-life issues" in the context of healthcare practice.

This idea of working with "real-life research results" is also stressed in the Business Development projects coming from the departments at the VUB and forms an integral part of the IMPACT (Interdisciplinary learning platforM for sPort 4 sociAl Change iniTiatives) programme by means of a "Community Engaged Research and Learning' approach, whereby the community intends to bring students in contact with practitioners and relevant organizations to better understand the challenges they face."

5. "TEACHER" CONCEPT RELOADED

The varied profile of the instructors was an interesting finding from analyzing the teaching resources deployed in the testbeds. A flexible definition of "staff" ranged from regular class instructor to researcher-coach, (Business Development) student teachers, peer trainers (International Journalism) guest lectur-

ers, experts (Urban Education) external practitioners, advisors, technicians...This heterogeneous profile crossed almost all the communities and one CLC Lead was vocal in welcoming this approach when saying "I don't mind having professionals and lay people. [...] If the objective actually is to make the model resilient, you must get into the market." (Veganism)

On the subject of staff profile, a **"double or circular training"** phenomenon whereby learners become trainers can be detected. In other words students receive their instruction at their respective HEI before joining laboratories/private sector/business world and are then invited back to collaborate with academia as supervisors or coaches. (Entrepreneurship, Technological Business Development) As the Text and Discourse Analysis lead succinctly put it, "you have a student, you train them, they get work and experience and then as members of our translation team they come back and supervise our current students.

6. RENEGOTIATING TEACHING TIME & SPACE

Diversity regarding temporality and modularity in course design are further examples of flexible learning initiatives within the CLCs. Courses may range from traditional semesters (15 week period) to trimesters (10 week courses at the UPF for example) to shorter one-week programmes (such as the "Languages in Use Week" project offered by Text and Discourse Analysis and Multilingualism & Diversity or the week-long Design & Science Summer School), one-day speciality courses (Veganism) or webinars (used by Nursing in Complex Situations). On this issue, the Lead of the Multilingualism community commented that in order to accommodate mature learners HE institutions "need to involve teaching in bite-size type format and flexibility that we don't have in academia".

Diversity regarding teaching spaces could even be added here as many of the CLCs move out of the classic "classroom" in order to inhabit "third spaces" such as the city itself as an outdoor learning environment (Urban Education), film studios (TV Direction), hospitals (Nursing) or adult learning centres (Journalism-Fact checking project) or a "virtual Language Café" (Text & Discourse Analysis).

7. GET THE STAKEHOLDERS ON BOARD

Co-creation with industry stakeholders is a clear trait of the FLECSLAB CLCs. The majority of the learning communities form close partnerships with a wide range of no-academic actors. The International Journalism instructor works closely with the professional news verification platform Verifica't; external experts are invited to the project meetings of the Urban Education course and the Television Direction Lead told researchers that external producers respond to the invitation not only to impart their knowledge but also to learn themselves: "people from the industry learn from young people who can do experimental projects that they just can't do because the sector demands specific standardized products".

Figure 14. FLECSLAB Specific Components of the LLL Toolkit.

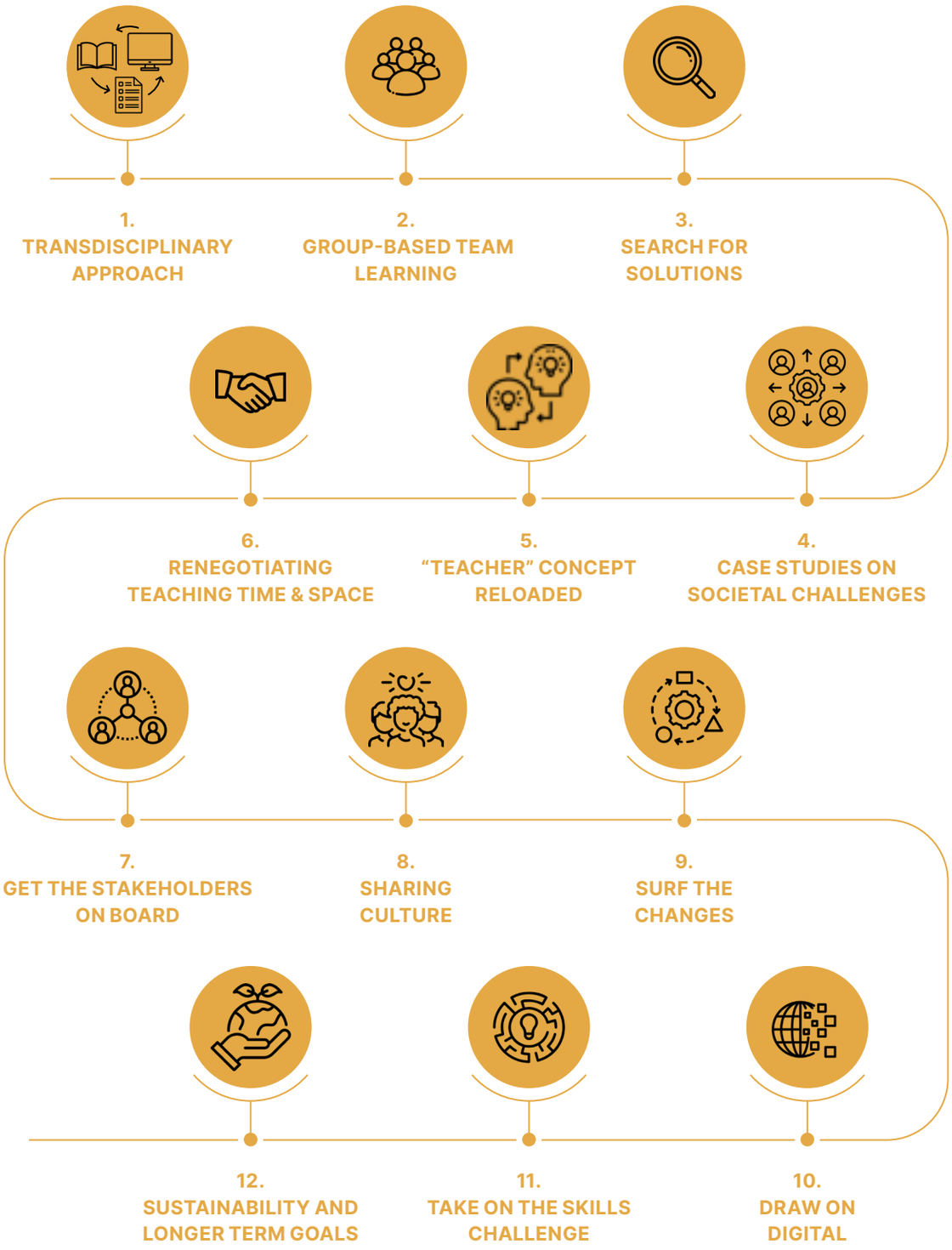
The need to work hand-in-hand with professional organizations was also highlighted by the Multilingualism and Diversity team. According to its Lead "it's a sine qua non...we simply cannot do what we do without them...it is a needs-driven start". The Nursing Care team agreed. One member of their community told researchers that in their case "collaboration and co-creation with industry stakeholders is paramount" and pointed out that this interaction is vital given that the nurses have the double status of academics and practitioners and therefore need to establish organic connections with HEI and co-create with them. In the same field, the Strategic Innovation in Healthcare team told researchers that they are working with professional bodies in the creation of a management and leadership competency framework for healthcare professionals.

8. SHARING CULTURE

If an integral part of the open education policy is the **sharing of resources** is clearly integrated into the CLCs. Examples here include how Television Direction shares its film archives, how International Journalism shares its peer training materials or how the Urban Education team is working together on a shared glossary of terms within their field. This exchange of knowledge allows for the sharing of projects and ideas as students may be working on similar cases at an international level.

9. SURF THE CHANGES

Adaptability is a key characteristic of the model to be adopted. This is due to various factors ranging from the variables surrounding the learner **educational profile.** Strategic Innovation in Healthcare has to cater to students with Phds who are taking the course to upgrade their practical skills or nurses who are taking the course to improve their qualifications. Veganism



takes on veterinarians who wish to update their skills or to update their credentials to keep their vet licenses. Senior students on the International Journalism course may have a 20-25 year **generational age gap**. The **socio-linguistic background** of learners may be a factor to be adapted too (for example, in Barcelona, courses are often bi-lingual Catalan/Spanish). The need to adapt to the LLL scenario may involve accumulative adaptability regarding face-to-face or online teaching, open timetables, academic or alternative learning settings, the level of co-creation and empowerment given over to students or the finetuning of a programme based on the specific needs of the learner. Regarding these two final points, the Multilingualism & Diversity CLC is a case in point as they aim to “empower students and provide them with the opportunity

to be more involved in their own learning experiences. This is why we have launched several pioneering activities, such as the possibility for students to design their module in Multilingualism".

10. DRAW ON DIGITAL

The use of **digital technologies** to which the EEE team referred to in their summary of the HEI-LLL landscape is also present in the CLCs. An online learning programme is key to the Strategic Innovation in Healthcare team, the Entrepreneurship CLC uses one too while the fact-checking initiative for senior students on the International Journalism course monitors students through a whatsapp platform.

11. TAKE ON THE SKILLS CHALLENGE

The "**skills challenge**" mentioned in general terms by the "dimensions map" shown previously is clearly embedded in the CLCs under analysis. This ranges from the **specific competences** that must be acquired to be a residential assistant (Strategic Innovation in Healthcare) or a credible news verifier (International Journalism) to equipping learners with **refined general skills** such as a capacity for analysis (according to the Multilingualism & Diversity Lead, "it's not about how to find the information but how to assure its quality and how to connect ideas") or an upgrade regarding digital literacy for those mature learners unfamiliar with new digital environments. The Design & Science Lead is ready for the challenge:

> "We live in a society, in an environment, in an era that constantly requires us to have new skills which we could not get from our basic education and which was a long time ago. As these working projects grow we need to learn specific skills and transform them into our organized learning processes and that's why these kinds of lifelong activities and systems are needed." (DESIGN & SCIENCE)

12. SUSTAINABILITY AND LONGER TERM GOALS

The resilience of the model along with that of monitoring its impact manifests itself in many ways throughout the CLC landscape. The IMPACT project aims to see how Sports Development Goals work and to determine their social repercussions and aims to help involved organizations to be more efficient The peer-to peer disinformation training workshops (International Journalism) are designed to grow exponentially as learners become trainers and a "domino" effect occurs when it comes to dissemination. Urban Education aspires to introduce sustainable ideas into the metropolitan classroom and the Nursing Care CLC aims to consolidate its research and continually update the development of knowledge and understanding in complex care situations.

SUMMARY

This collection of teaching initiatives and guidelines for training which emerge from the CLCs have been selected for their potential embedment into a solid Lifelong Learning proposal:

- The **transdisciplinary** character of course content reflects a more holistic and integrated approach and allows for greater **flexibility** when adapting to the diverse background of the non-traditional learner.
- A **problem/solution focus** addressed in **team formats** and as part of a "**knowledge share culture**" forms part of the **collaborative teaching** philosophy behind LLL.
- Viable case studies based on "**real-life" societal challenges** and backed by **invested stakeholders** allows for the **greater community engagement** which mature learning requires.
- **Adaptability** to these flexible pathways is key in order to "surf" the changes in the learning environment, to incorporate **skill acquisition** and to achieve a certain level of **sustainability** regarding the implementation of these changes.

Amid such renovated teaching designs the learner must remain at the centre, a principle summed up by the Veganism CLC Lead when stating:

> *"Always the learner is at the centre. I don't see anything else in the centre. How you service that learner is the key. If you have an empty centre, then you can dance around these circles and it's not going to do any good."*

PART III

Lessons from the Ecosystem Prototype:

International Journalism

As was discussed in the Methodology section of this report the development of Lifelong Learning projects is tied closely to **learner profile**, **educational offering** and **context**.

Three types of learning ecosystems were formulated with these criteria in mind.

1. a ***regulated model*** defined by clear parametres, well identified learners and stable contacts between regulatory authorities and educational suppliers

2. a ***mid-strength structured model*****:** learners are more difficult to identify and driven by their needs; educational offer is short programs at postgraduate level; intense cooperation between stakeholders (public/ private, e.g. business schools)

3. a ***fragmented*** *or "****scattered" model*****:** learners difficult to locate; self-perceived LLL needs; specific nature of these motives unclear; unstructured educational offering; existence of private/online competitors which offer ad hoc packages

In order to further our research goals and to prepare academic staff for LLL engagement, we have selecet-ed one CLCs as represenative of one of this models. Concretely, we selected **International Journalism CLC** as example of a fragmented model and we have elaborated a prototype of LLL project to implement in this area. It is hoped that the findings related to the prototype will enable us to formulate a series of guidelines for academic staff willing to engage in life-long learning.

PILOT TEST

Senior Citizens and Disinformation – a LLL project derivative of International Journalism and Global Media

UPF

International Journalism and Global Media – Eutopia (eutopia-university.eu)↗

As for a suitable prototype of a more fragmented or scattered model the Flecslab Core Coordination Team and the Connected Learning Community Lead coincided in that the learning ecosystem for the International Journalism course constituted a fair approximation given that it goes beyond the medium level of structuration typical of model 2 and is closer to the informality more characteristic of model 3 given the learner cohort in question (senior learners with potentially considerable age differences, backgrounds and motivations) the course content material (news verification and disinformation) and the teaching approach deployed (peer-to-peer training).

One of the threads that runs throughout the undergraduate International Journalism course at the Universitat Pompeu Fabra (UPF) in Barcelona refers to the disinformation war which breaks out during armed conflicts (recent examples include Russia/Ukraine and Israel/Hamas). This leads students to debate information malpractice in times of war. As some of the students enrolled on the course belong to the UPF Seniors programme this forces them to navigate through a toxic news landscape with which they are comparatively unfamiliar —that of fake news and social networks— and demands of them digital reskilling and competence. This situation led to the creation of a senior citizen disinformation workshop network which combines both lifelong education precepts and digital competences.

In the pilot test case presented here —where senior citizens embody non-traditional learners— it should be borne in mind that the composition of the toolbox is made up of three phases:

1) the innovative design and development of a toolbox geared towards such a specific non modal learner community and which includes materials for recruiting trainee volunteers; a guide for the training workshop; instruments used in the peer-to-peer sessions (videolinks, QRs, powerpoints, case studies); a proposed whatsapp course for knowledge consolidation and ideas for creating a permanent structure for a self-managing volunteer network.

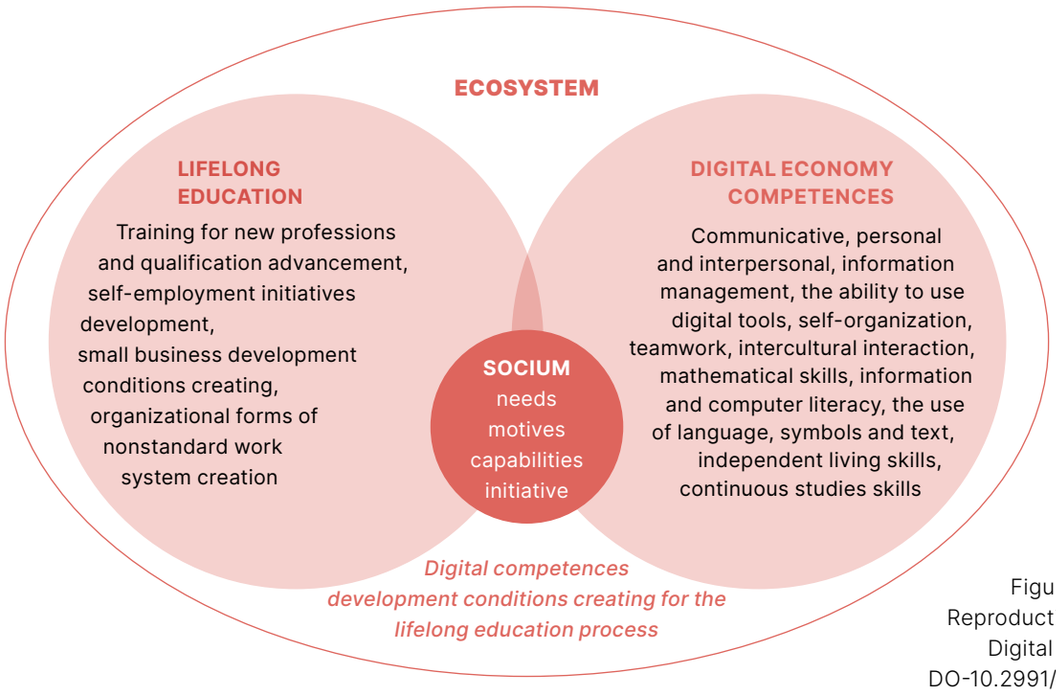


Figure 15. Labor Potential Reproduction Transformation in Digital Economy Conditions
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2) the carrying out of pilot tests to detect aspects which can be improved.

3) the training of peer-to-peer instructors who will deploy and further develop the materials the toolbox contains and whose results it is hoped will be widely applicable.

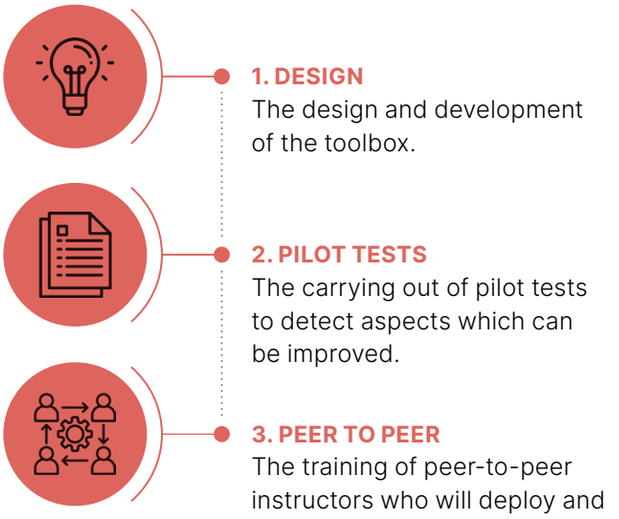


Figure 16. 3 phases of the toolbox.

The non-modal learners to which the model is addressed here refers to senior citizens, in themselves an excellent example not only of how Higher Education demographics are changing but also of how LLL initiatives need to introduce flexible mechanisms that recognise short term intensive learning proposals and which enable academia to reach a wide range of lifelong learners from various backgrounds and across disciplines.

THE "SENIORS" CONCEPT AND DIGITAL LITERACY

While considerable discrepancy exists in the academic community regarding both the terminology to be employed in this debate —"seniors", "elderly", "OAPs" etc— and its numerical definition —recent research on the "elderly" and their use of whatsapp sets the bar as low as 50 (Sadaba et. al, 2023) while specialist publications such as the *Journal of Aging Studies* only considers articles which deal with the over-65 age bracket— it is clear that the older population has to face one of the most important revolutions in human history: the digitization of society. This process —accelerated by the outbreak of Covid-19 (Venkat-Kamesh, 2021)— has turned into a challenge for this less digitally literate sector resulting in greater difficulties for the performance of daily tasks (Papí-Gálvez & La Parra-Casados, 2022). These tasks include management in the banking sector —which has not only been widely digitized but has also been affected by the intensive closing of branches and the reduction of the workforce in the banking sector— along with digitization processes in other areas, such as in the public health sector, the introduction of QR codes in restaurants or mobile applications linked to public transport, among many others.

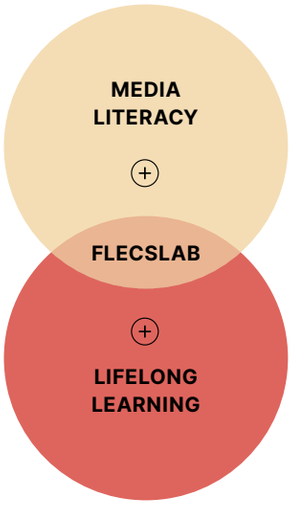
The effect of digitisation extends to all these aspects of daily life and digital news consumption is no exception whether through online legacy outlets or social networks. Aside from the fact that seniors tend to encounter greater difficulties in the digital panorama in general, the fact that desinformative news content flows unregulated within the system leaves the senior population especially vulnerable.

The LLL teaching proposal put forward here revolves around one of the main concerns within contemporary Communication Studies; namely the **digital gap which affects the media literacy and interaction of senior citizens** (Besalú et al., 2021; Besalú & Pont-Sorribes, 2021; Guess et al., 2019; Hameleers & van der Meer, 2019; Ramírez-García et al., 2017; Sánchez-Velilla et al., 2017). While for authors such as Aufderheide (1993) for whom media literacy is "a citizen's ability to access, analyse and produce information for specific results" or Livingstone (2004) for whom it refers to "the capacity to evaluate and create messages in a variety of contexts", recent events tied to the added problem of disinformation have led scholars to create the idea of "media competence" (Ferrés & Piscitelli, 2012).

In its 2022 report the Spanish Education Ministry defines the acquisition of these basic digital skills as those which necessarily involve "the creative, critical and secure use of information technologies to achieve goals related to work, employment, learning, use of free time, inclusion and participation in society". Lifelong Learning and digital literacy are therefore closely tied by the very nature of their terminologies. This is clearly shown in recent research such as the work of Anthonysamy et al. (2023), who through a survey of 563 individuañs shows how a certain degree of autonomy in the digital space helps LLL learners to increase

their learning experience and be more satisfied with the LLL programme.

In the present report, the authors refer to "media literacy" as the capacity to comprehend, evaluate and employ the media in a critical and effective way. The aim of media literacy is to empower people so that they can navigate and interact with the media in a responsible and critical way, and make informed decisions about the information they consume and share. The finetuning of this skill is essential in the digital era when as citizens we are permanently exposed to and targeted by diverse media platforms. Greater media literacy empowers citizens to navigate and negotiate with media in a responsible and critical fashion and allows us to make informed decisions on those issues which interpellate them.



The generational gap in media literacy reveals divergent behaviour based on age. With the consolidation of social media in the second decade of the 21st century, differences in the levels of media literacy have further widened. While younger consumers are critical in their news consumption habits and more agile in their detection of disinformation practices, senior citizens (also referred to as *older adults*) are more likely not to check sources as well as to consume and share disinformation online (Martí-Danés et al., 2023; Besalú et al., 2021; Braschier & Schacter, 2020). One of the most salient aspects of post-pandemia studies in the field refers to the need to bridge the digital gap for senior citizens in order to equip them to decode disinformation, combat fake news, disarm malignant practices (scams. hoaxes, phishing…) and consequently increase the quality of their decision-making and participation in democratic societies.

With the aim of reducing this generational gap in relation to media competence, FLECSLAB caters to this segment of the population as a case study due to its vulnerability in the digital sphere. With the aim of contributing to generating a better informed citizenry and consolidating a solid network of seniors to combat disinformation, FLECSLAB proposes a series of learning activities and experiences and aims to act as a hub for drawing together different actors which operate within the wider network of organizations dedicated to the training of the elderly and the fight against disinformation. In this way the project offers a

route for direct knowledge transfer giving this sector of society a sense of agency and allowing them to contribute to the strengthening of the democratic foundations of society.

How this proposal fits the FLECSLAB project

The LLL proposal put forward in this report ticks all the main boxes in the original remit:

- it clearly identifies its LLL **target group**: the non modal learners are **senior citizens**
- it opens the door to HEI traditionally closed for adult learners
- it offers a **tested and specifically-adapted multimedia toolkit** for class instruction ranging from **didactic video capsules**, additional **audiovisual materials** for both in class and outside study
- it provides **detailed training modules** for LLL instructors through the sessions aimed at HEI staff and the peers
- it creates a clear roadmap by piloting diverse and innovative formats moulded to fit non-traditional learners (through ***peer-to-peer training***)
- it monitors outcomes and progress through **ex ante and ex post surveys** and a **whatsapp platform** to allow learners to update their skills and knowledge
- it provides for **multiplier events** as trainers "export" the knowledge gained through workshops offered to the public administration (e.g. town councils) private associations (e.g. sports clubs) or civic organizations (adult learning centres).

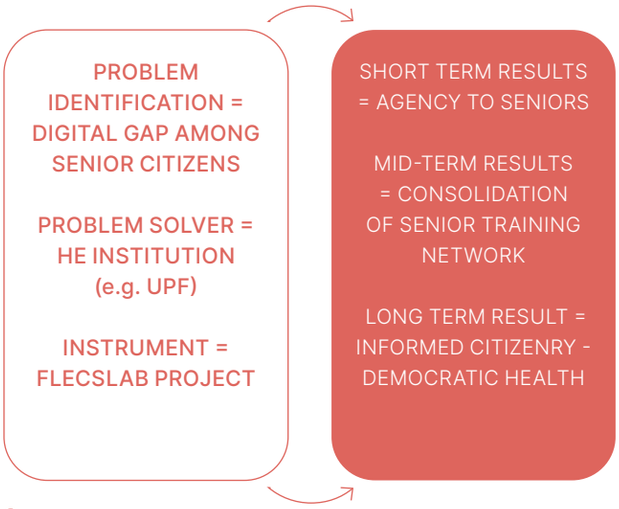
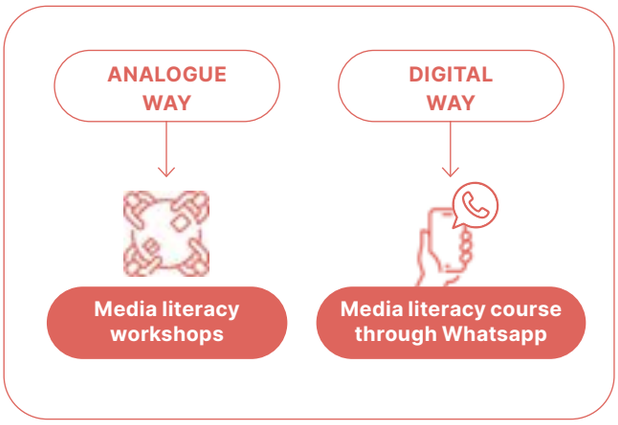


Figure 17. Methodological scheme of UPF FLECSLAB.

In this sense, this document provides a specialized instrument and a series of guidelines addressed to HE institutions aimed at building a structure for the delivery of LLL activities open to non-modal learners which, while emanating from the university environment, extend beyond traditional learning models and academic confines. It does not limit itself to indicating what the FLECSLAB project guidelines should be, but also provides a pilot test oriented around the subject on **the impact of disinformation in senior citizens / older adults**.

The UPF team of researchers conducted these pilot tests, suggested the steps to follow and put the proposal into practice through a double formula: the holding of **media literacy workshops** + **peer-to-peer training**. The result has been a **successful knowledge transfer project with multiple stakeholders** who are currently disseminating the FLECSLAB project at a local level through both public institutions and private associations.

Parallel to such 'analogue' or face-to-face initiatives, a short media literacy course will also be prepared online in the aim of reaching a wider public. The pilot test digital course will consist of 9 audiovisual video capsules each of them explaining a concept related to disinformation. These videos will be available through video sharing platforms such as the FLECSLAB YouTube channel. In these videos, the researchers along with several other experts both practitioners and academics will explain basic concepts about disinformation. An example of such a short didactic video can be seen below in the first session entitled: "A Guide to Concepts: Disinformation, Malinformation and Misinformation".



The videos are approximately 2 minutes long and the contents will be available in both Catalan and English.

The following table shows the course contents :

Module 1	Conceptual introduction: Disinformation, Malinformation and Misinformation
Module 2	Media Literacy
Module 3	Information Credibility.
Module 4	Fact-checking platforms.
Module 5	Journalism and misinformation.
Module 6	Seniors and misinformation.
Module 7	IA as an informative threat
Module 8	How to detect bots? What role does social media play?
Module 9	Disinformation during electoral campaigns

In order to fully explain the LLL-UPF Journalism project, the report adopts a 5-step approach:

- Step 1: Definition of the **community** of non-modal learners
- Step 2: Identification of **stakeholders** in the social context
- Step 3: The **model**: toolbox design + pilot tests + peer-to-peer training
- Step 4: The key role of **multipliers**
- Step 5: Future challenges

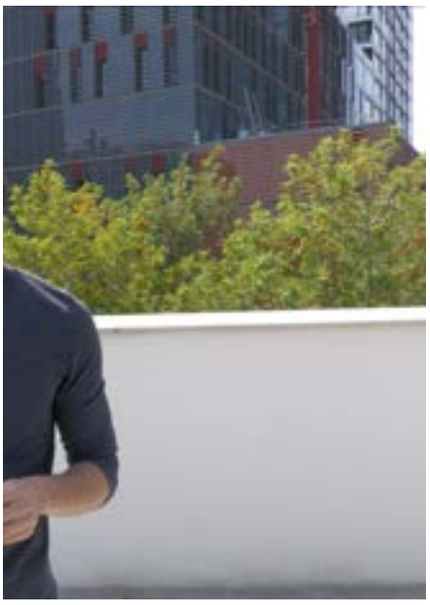


Figure 18. Screen capture of the first session of the digital course (English version).

Figure 19. Screen capture of the first session of the digital course (Catalan version).

Step 1:

Defining the community of non-modal learners

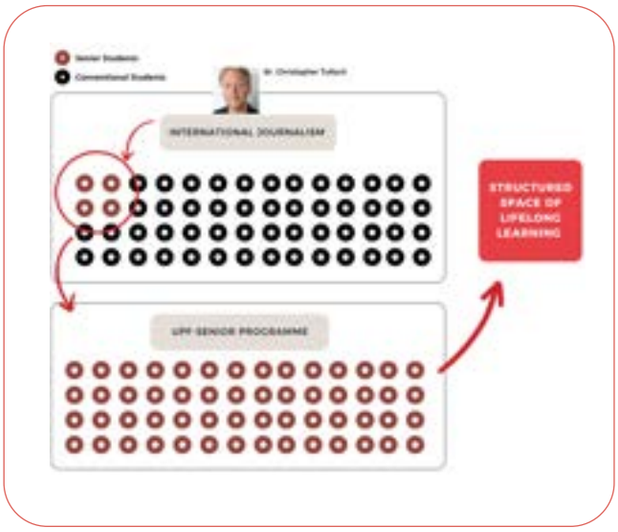
Establishing a community of non-modal learners starts from the idea of creating spaces conducive to lifelong learning that maintain a link with the university but which, until now, have not been explored and articulated.

The question here is to search for teaching spaces with potential from which the HEI —in this case the university— can create permanent lifelong learning structures. In our case, the definition of the community of non-modal learners starts from the incorporation into the International Journalism course (offered to third year students of the UPF Degree in Journalism) of mature students over 50 years old as part of a LLL programme at the UPF known as the UPF Senior program. Despite the benefits derived from intergenerational exchange (one of the aspects most valued by the senior community), there is a lack of educational/training programs focused on their specific needs. No specific courses are directed towards this type of student, who then joins the class with the vast majority of local and international undergraduate students.

Christopher Tulloch, FLECSLAB project leader at the UPF, is course instructor of the International Journalism course. After a series of informal talks with senior students, he detected that they i) constituted a motivated cohort of students with a real interest in international affairs; ii) brought their personal experience and background and historical context to the classroom; iii) that they had a greater affinity with the teacher given the reduced gap in age and iv) were predisposed to going beyond the concepts taught during class lectures.

That said, Tulloch also observed that when class content led these same students out of their comfort zone (for example in discussions about social networks, fake news and disinformation practices) a clearly identifiable knowledge gap existed. The strong connection with this group of senior students allowed him to propose a series of activities related to lifelong learning that could improve their skills, update their knowledge and allow them to participate in debates on subjects which up until now had remained out of reach. A positive response from students led to formal contacts between the CLC lead and the UPF Senior program

Figure 20. Community of non-modal learners UPF – FLECSLAB.



coordinator and an initiative was launched to create a new space to maximize and profit from the possibility of facilitating this knowledge transfer.

As can be observed this proposal falls midway between the semi structured model 2 of Lifelong Learning –given that a structure which links the HEI (university) and seniors is already in place– and the more informal model 3, given the pioneering nature of the proposal and the inexistence of such precedents related to Lifelong Learning.

Step 2:

Identify stakeholders in your social context

Once the community of non-modal learners has been defined, it is necessary to identify issues and corresponding population groups that can develop the role of stakeholders in relation to our lifelong learning project. As regards the topic, the research team chose an emerging field in communication studies —**the effects of disinformation on senior citizens**— and proposed a short course on digital literacy aimed at combating disinformation directed at this vulnerable age group.

Disinformation and seniors

> "false or misleading content that is spread with an intention to deceive or secure economic or political gain and which may cause public harm".
>
> Definition of Disinformation: European Commission, 2019

Disinformation is one of the defining characteristics of the highly polarized political environment within which citizens interact today. (Digital News Report 2023). As Sadaba (2023a) points out, "the complexity of this ecosystem, where truthful information coexists with false or erroneous content, highlights the need to train users to be critical of the information they receive and share".

In a very recent study, Sadaba et. al. argue that due to the identification of disinformation as a danger to democracy and to social cohesion by over 95% of the Spanish population, "many institutions point out the need for media literacy campaigns and initiatives that alleviate the harmful social effects of the phenomenon, especially among vulnerable audiences". (Sadaba et al, 2023a:1) While it is true that academic research is slowly recognising that the elderly are potentially the most vulnerable to the deliberate falsehoods disseminated on the Internet and social networks (Braschier & Schacter, 2020; Besalú et al., 2021 Guess et al., 2019; Valera-Ordaz et al, 2022; Hameleers & van der Meer, 2019) there can be no doubt that greater media focus has been placed on young people (De Vicente-Gómez et al, 2021), leaving senior citizens to be comparatively overlooked.

The presence of senior learners in the International Journalism CLC —which deals with disinformation and fake news in global media— has allowed them to be targeted here for such media literacy proposals and to go some way to bridging the so-called "digital gap" between the "digital natives" (Farrés & Piscitelli, 2012) and the relative digital incompetence of disempowered older generations. Action must therefore be taken to reduce this gap so as not to isolate an important sector of the population (Papí-Gálvez & Parra-Casados, 2022).

PREVIOUS RESEARCH

The fact that **older people are those who consume more disinformation is also demonstrated by the academic literature** (Braschier & Schacter, 2020; Guess et al., 2019; Valera-Ordaz et al, 2022; Hameleers & van der Meer, 2019).

PREVIOUS RESEARCH

In all the studies carried out regarding credibility of the information, the same conclusion is reached:

- Age was a **differentiating factor** in the credibility given to information.
- Older people give more credibility to all types of information.

MEDIA LITERACY

According to the EU barometer, **Spain falls below the European average with respect to digital skills and is ranked 16th out of 27 countries.**

This means that **43% of citizens between 16 and 74 do not have the skills necessary to develop in the digital world**. Moreover, this percentage sharply increases for those over 75 who consequently experience far greater difficulties in digital environments

At a Spanish level, the findings of reports such as the 2021 Barometre of the Pensioners' Union (2021) corroborate this digital gap, when affirming that 40.5 % of those over 65 had never accessed the Internet by themselves.

The need to re-skill in order to bridge the digital gap among seniors has also been recognised by the local public administration. Proof of this is a report published by the Digital Policies team at the Department of Business and Labor of the Catalan Government (2022), which defines the following gaps related to digitalization:

- **Digital access gap:** difficulties in accessing technology and the media that make it possible to be digital.

- **Digital knowledge gap:** lack of skills and competencies in technology, networks and digital tools.

- **Digital usage gap:** lack of use of technology, the network and digital tools to carry out certain activities.

A case in hand that exemplifies this digitalization process is banking management, which has consolidated this transition in recent years, especially with the appearance of the Covid-19 pandemic. This is confirmed by the Bank Maturity 2022 report, which identifies Spain as the country with the second most digitalized banking system in the world. These large-scale digital shifts, whether in the banking, administrative or healthcare fields, marginalize those with fewer digital skills, in this case senior citizens.

UNESCO identifies three clear lines of action regarding skills: digital, informative and media. The chart below shows which factors compose each of these fields:

These competencies conform to the concept of Information Media Literacy which is the key instrument that UNESCO adopts in the face of information saturation and disinformation that we live with in our day to day lives.

One of the most useful tools for disseminating the IML plan is the organization of workshops on media and digital literacy. While the emergence of fact-checking platforms has represented an intra-professional response to this issue, such media literacy workshops can act as a viable complementary strategy to combat disinformation as part of a coordinated strategy to limit the negative consequences of this phenomenon (Wardle; Derakhshan, 2017). These workshops are aimed at equipping citizens with the resources to upscale their personal skills and critical capacity to allow them to measure their information consumption habits, confront their own biases and recognize the disinformation tactics to which they may fall victim.

Scientific evidence exists that shows that workshops do have a positive effect (Moore & Hancock 2022). One such example is the experiment carried out by Sadaba and Salaverria consisting of a 10-day whatsapp based course with over 1000 participants over 50 years of age which showed that such training actions on media

DIGITAL LITERACY	INFORMATIVE LITERACY	MEDIA LITERACY
Use digital tools.	Define and articulate information requirements.	Understand the role of the media in democractic societic.
Understanding the digital identity.	Identify information and acces it.	Understand the conditions of media.
Recognize digital rights.	Evaluate information.	Critically asses the contents that appear in the media agenda.
Asses the AI aspects.	Make ethical use of information.	Actively relate to the media to express yourself and get involved in democratic processes.
Manage digital security.	Communciate information Use the TIC for the information processes.	Understand the tools required for production.
Act safely in the digital space.		

Table 21.
Source: AMI multidimensional approach (UNESCO)

literacy can have a positive effect on the senior population (Sadaba & Salaverria, 2023 p. 9).

That said, the authors also point out that "although it is true that given their maturity and experience they are attributed with greater critical capacity, their knowledge and skills to select and weigh the information they receive through the Internet may be more limited" (2023a: 3). In that sense, digital fraud has grown exponentially throughout 2022 and 2023 through the consolidation of AI. In the following graphic we can see the most vulnerable countries in Europe to digital fraud:

While creating a deepfake visual image is not a crime in itself, many governments are concerned about the consequences this phenomenon may have at a communicational level and are working on establishing stricter regulations. The disinformation capacity of AI is a serious problem given the enormous media repercussion of which it disposes.

The lack of regulation in this sector, along with the lack of informational and digital skills among the senior population leads to the possibility of creating a network of media literacy workshops that help prevent toxic news

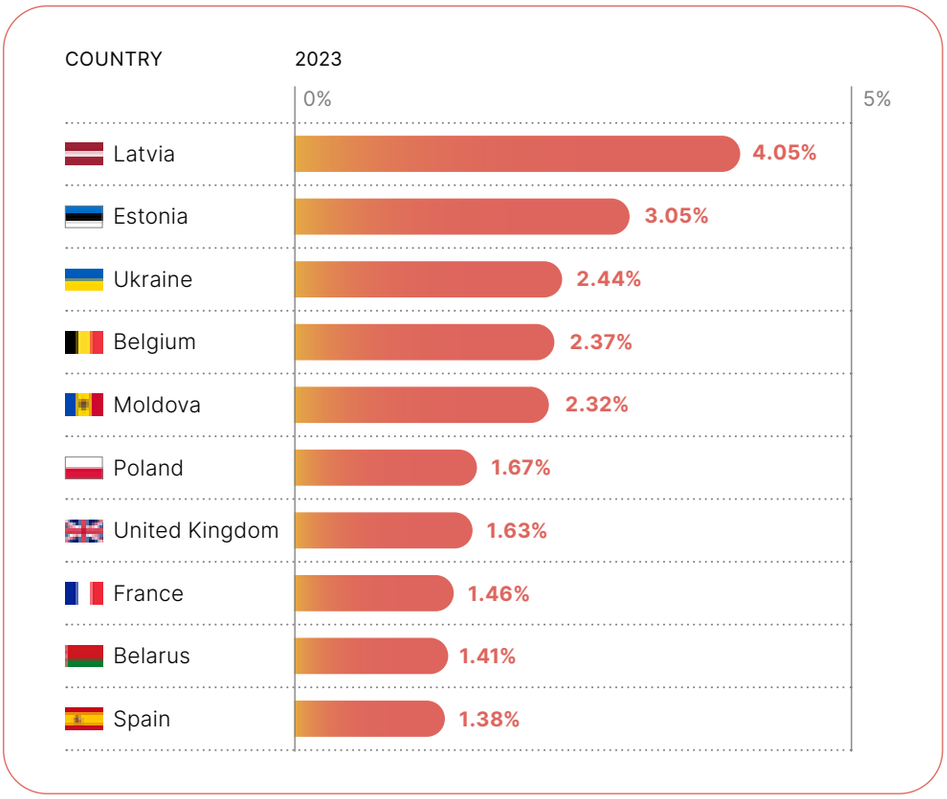


Figure 22. Ranking of countries with more digital frauds.

Figure 23. Deepfake of Pope Francis.

Figure 24. Spanish fact-checking platforms.

consumption practices. Now the workshops are shown as a channel conducive to the adaptation of the lifelong learning model of continuous training. Therefore, a coordinated effort of numerous agents to combat disinformation is necessary (Cucarella & Fuster, 2022), including the journalistic sector itself (Pérez-Tornero, 2008), which has in-house fact-checking teams as its most distinctive characteristic (Nieminen & Rapeli, 2019).

Academic and professional projects regarding senior citizens & disinformation in Spain

There is a growing interest within both the Spanish academic and professional contexts regarding the vulnerability of senior citizens when faced with disinformation practices. As for HEI research on this subject we can cite recent studies such as that of Sádaba et al. (2023), based on an investigation in which they designed a digital course aimed at people over 50 years of age. A sample of 1,029 individuals residing in Spain was divided between those who took the course and those who did not, demonstrating that those who had taken the course had higher levels of media literacy.

Likewise, the Ideograma-UPF Chair of Political Communication and Democracy (2023) analyzed the ability of seniors to detect disinformation, resulting in an optimistic view of their capabilities but with an important gender bias. as it showed that women evaluate all types of information with more credibility, whether true or false. Both studies reach the conclusion that pre-established political ideas hinder the objectivity of the respondent.

From a professional standpoint we can also refer to projects such as SUM (Seniors United against Misinformation) led by the Catalan verification project known as Verificat in conjunction with colleagues in Bolonia and Lapland in northern Finland. Apart from Verificat, there are other projects on dissemination in the field of disinformation such as the media education workshops hosted by the platform Learn to Check or the Intergenerational Digital Divide Chair of the University of Valencia with annual reports on the state of the digital skills. Within Spanish newsrooms almost all major outlets have fact-checking platforms and many independent organizations have emerged.in recent years dedicated to news verification.

So, in this pilot test of the FLECSLAB project, seniors are identified as project stakeholders. This age group now occupies a larger space in the population pyramid than ever before. According to the National Statistics Institute (2023), in Spain citizens over 64 years of age represent 20.43% of the Spanish population, the highest percentage in history. The aging of the baby-boom generation (1946 to 1964) results in the inversion of the social pyramid. Until now, in much of Western societies the younger generations were the majority, an aspect that is reversed today. This implies an aging of the global population, which only further highlights the demographic importance of this sector, as has been observed in certain electoral processes such as Brexit (Nouvellet, 2017) or the victory of Donald Trump (Cook et al. 2017).

Step 3:

The UPF FLECSLAB – LLL Model

MISSION:
creation of a LLL toolbox for "non-modal and non-traditional learners", (in this case citizens 60+) to provide them with mechanisms to identify disinformation and false news content

The model is composed of THREE main phases:

1) toolbox design and development;
2) pilot tests;
3) peer-to-peer training to put the tools to the test and a step-by-step is set out below:

1. BUILD THE RESEARCH TEAM
2. DEVELOP THE MATERIALS
3. RECRUIT THE TRAINERS
4. IN-HOUSE TRAINING COURSE
5. PEER-TO-PEER TRAINING COURSE
6. MONITORING STRATEGIES COURSE

1. BUILD THE TEAM

1. **Umbrella of a solid academic institution (UPF)**
2. **Researchers with previous experience in didactic innovation necessary for all LLL-based projects**
3. **Pooled and contrasted knowledge of the chosen field of experimentation (in this case, senior learners and disinformation)**

The FLECSLAB project leader at the UPF creates the core team drawing on accredited researchers with a suitable background in two complementary fields: one of more universal application —related to teaching innovation projects— and the other tied to the more specific characteristics of the proposal at hand, namely that of senior citizens and disinformation.

EXPERIENCE IN TEACHING INNOVATION APPLICABLE TO LLL PROJECTS. Dr. Tulloch has worked in the field of teaching innovation and knowledge transfer for over two decades as can be seen from the profile of publications in the field such as "The Classroom is the Newsroom" in *Journalism & Mass Communication Educator* (Vol. 73, Num. 1 2018); "The Catalan news agency: a unique professional training model in journalism teaching" (*CIDUI Journal*, vol. 2 , 2014) or book chapters on journalism instruction innovation in monographs such as *New Technologies and Audiovisual Digital Information* (2003) or *Internet and Multimedia Communication* (2001). Tulloch has also formed part of various teaching innovation initiatives such as the European project "Integrated Journalism in Europe" (2013-2015), the "EdVolution" teaching initiative at the UPF (2022) or the COPE project (Covering Cohesion Policy in Europe) a project led by the University of Dortmund aimed at implementing a multilingual MOOC in order to train European journalism students in their coverage of the European Union (2023-2024). He has also spoken on journalism innovation at the

Figure 25. Cover of the report "Disinformation in the senior population".

leading international congresses in the field (IAMCR, ECREA, AE-IC...)

EXPERIENCE IN APPLIED DISINFORMATION RESEARCH. Doctoral student Aleix Marti joined the FLECSLAB team as a researcher with proven experience in applied projects related to disinformation due to his work as the coordinator of the Chair in Political Communication and Democracy (Ideograma-UPF). As regards disinformation and senior citizens —the chosen cohort for the FLECSLAB project— Martí has presented recent studies on seniors and credibility organized by the Chair in Generational Digital Gap as well as extensive fieldwork for the project "Disinformation among older adults: analyzing the impact of fact checking on news credibility" the results of which were showcased at the 2023 Annual Congress held by the International Association for Media and Communication Research in Lyon, France.

The results of this study can be found here: 'Desinformación en la población sénior: el impacto de la verificación en la credibilidad informativa'.

PROFESSIONAL FACT-CHECKING COLLABORATION. The research team at the UPF chose to approach a professional fact checking platform -in this case, the Catalan project Verificat.cat —in order to a) guarantee correct procedural measures when approaching senior citizens with fact checking issues and b) capitalize on their experience in previous projects as part of their media literacy and educational platforms. Verificat has been recognised by both the International Fact-Checking Network (IFCN) and the European Fact-Checking Standards Network (EFCSN) and is specialized in monitoring hate speech, tracking political claims and disinformation particularly in the field of science. Assistance for the FLECSLAB project came from Cristina Figueras and Irene Tortajada.

2. DEVELOP THE MATERIALS

4. **Materials necessary for the "kick-off" orientation session**
5. **Didactic material necessary for the 4-hour training course**
6. **In class materials to be used by peer-to-peer trainers**
7. **Materials necessary for project monitoring (pre and post)**

ORIENTATION CLASS. As the project is based on the help of volunteer senior citizens —in this case drawn from the UPF Seniors programme— clear explanatory materials must be developed for the orientation class in order to attract future volunteers for peer-to-peer training based on three main premises: i) a clear explanation of the Flecslab project; ii) the idea of Lifelong Learning applied to senior citizens and iii) the need to bridge the digital gap in this sector of the population.

The goal of this meeting is to introduce the main ideas of FLECSLAB to our group of stakeholders, in that case the seniors population through the Senior - UPF programme. This session allows us to invite them to join this project and explain what we expect from them. Also, it is very important to understand what concerns they may have about misinformation, how this affects their day-to-day life and the specific problems they encounter problems (e.g. scams, sharing false information, etc.).

Figure 26. Example of slides used in this meeting.

TRAINING COURSE. This consists in the preparation of visual (photos, posters) and textual (newspaper articles, web posts) materials to be presented during the course to enable future trainers to explain how to verify "news" stories. This may involve PowerPoint presentations, interactive elements and updated practical examples. The materials employed here are for training

purposes and are not necessarily the ones to be used in class which may be edited and simplified.

Figure 27. Example of the templates used in the presentation.

TRAINING COURSE (PEER-TO-PEER). After the training course has been completed, researchers then fine tune the teaching materials based on senior trainees' reactions and feedback to be used by them as part of their peer-to-peer training.

Figure 28. Example of the templates used in the presentation.

MATERIALS FOR PROJECT MONITORING. In order to track our non-modal learners' progress in the field of disinformation, an exploratory initial questionnaire is drawn up designed at ascertaining information from those senior citizen learners regarding their news consumption practices and knowledge of disinformation. This is distributed before the class begins and is stored for later analysis. This is complemented by a second questionnaire distributed at the end of the classes in order to gauge media literacy progress in this case by contrasting previous awareness of disinformation practices with the knowledge gained following the course.

Encuesta - Asistentes al taller (pre)

1. ¿Quién va a ser su formador en este taller?

2. ¿Cuántos años tiene usted?
   - ☐ Menor de 65
   - ☐ Entre 65 y 70
   - ☐ Mayor de 70

3. ¿Cuál es su género?
   - ☐ Masculino
   - ☐ Femenino
   - ☐ Prefiero no responder

4. ¿Cuál es el nivel educativo/de formación más alto que ha completado?
   - ☐ Sin educación formal (1)
   - ☐ Graduado en secundaria (2)
   - ☐ Formación profesional/certificado (3)
   - ☐ Grado universitario (o equivalente de 2 años) (4)
   - ☐ Licenciatura (o equivalente de 4 años de universidad) (5)
   - ☐ Posgrado (Maestría, Doctorado o equivalente) (6)

5. ¿Utiliza estos canales de información? Por favor responda SÍ o NO para cada uno:
   - ☐ Televisión
   - ☐ Radio
   - ☐ Revistas impresas
   - ☐ Periódicos digitales
   - ☐ Periódicos tradicionales
   - ☐ Facebook
   - ☐ WhatsApp
   - ☐ Boletines
   - ☐ Foros en línea

Encuesta – Asistentes al taller (post)

1. ¿Quién ha sido su formador en este taller?

2. ¿Conoce a su formador?
   - ☐ Sí, es un amigo/conocido
   - ☐ Sí, son amigos de un conocido mío
   - ☐ No, no los conocía en absoluto

3. ¿Qué porcentaje de las noticias que ve en línea diariamente cree que son falsas o no totalmente ciertas?

0 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

4. Por favor indique hasta qué punto está de acuerdo con las siguientes afirmaciones:

	Totalmente en desacuerdo (1)	En desacuerdo (2)	Ni de acuerdo ni en desacuerdo (3)	De acuerdo (4)	Totalmente de acuerdo (5)
Casi siempre puedo confiar en la mayoría de las noticias (1)	○	○	○	○	○
Casi siempre puedo confiar en las noticias que leo (2)	○	○	○	○	○
Casi siempre puedo confiar en las noticias que busco (3)	○	○	○	○	○
Casi siempre puedo confiar en las noticias en redes sociales (4)	○	○	○	○	○

5. ¿Cuánta información falsa cree que se encuentra en los siguientes medios o situaciones?

Figure 28. Example of the templates used in the presentation.

3. RECRUITMENT OF PEER-TO-PEER TRAINERS

8. **Background research on peer-to-peer teaching techniques**
9. **Criteria for choosing the trainees**

One of the main objectives of the FLECSLAB project is the building and consolidation of a network of digital media literacy trainers based on the "peer-to-peer" idea according to which the teaching instruction senior citizens receive is given to them by someone of a similar age. The fact that the instructor and the workshop attendees share a similar background facilitates their capacity for understanding the digital challenge and allows for experiences to be shared more easily.

That said, the recruiting of peer-to-peer trainers is clearly one of the most challenging aspects of the project. While the benefits of peer instruction for student learning have been widely documented (Chandra & Palvia 2021; Tullis & Goldstone 2020; Boud 2001) finding a balance among role models is crucial in order to assure a multiplier or "domino" effect. For the FLECSLAB project, different factors are taken into account:

- Age: training a senior close to 60 is not the same as one closer to 80
- Gender: depending on the profile of our students this could be a factor
- Communicative ability: students need confidence and public speaking skills to do this
- Comprehension of the FLECSLAB project and aims
- Territorial balance: ensure urban/non-urban variety regarding trainee background

In the case of the UPF, project leaders approached the "UPF Senior" program aimed at non-modal learners over the age of 60. A "call for interest" email was sent to this collective and approximately twenty volunteers signed up for the initial orientation session. After this, volunteers were then given a month to consider if they would like to sign up for the full 4-hour training course. Of these approximately 70% (14 or 15 students) joined the training session.

Figure 30. Exposing the key concepts of FLECSLAB.

4. "TRAIN THE TRAINERS" COURSE

10. **Two sessions x 2 hours held at the university campus**
11. **Class 1 = lifelong learning philosophy + FLECSLAB initiative + student experiences / feedback encouraged)**
12. **Class 2 = (tips and practical advice on fact-checking and how to combat disinformation)**
13. **Volunteer trainers must understand their role**

Once the cohort of volunteer trainers is assembled, the project team then proceeds to offer a 2 session 4-hour training course.

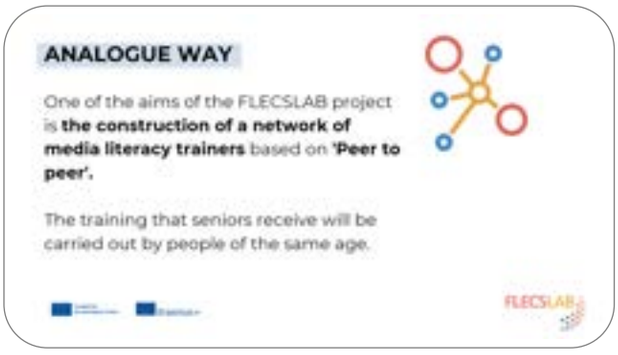
TRAINING DAY 1: The first session, of a more general nature, begins with a short debriefing of the FLECSLAB project before dealing with the reasons behind this initiative: namely the digital gap, disinformation practices and the potential vulnerability of the senior citizen demographic.

TRAINING DAY 2: The second —more practical— session presents the trainees with advice as to how to avoid falling into the disinformation trap and specific tips regarding the detection of fake news practices and a guide as to how to contrast news stories ranging from sourcing techniques, photographic checks, horizontal readings and digital counter-checking skills.

Figure 31. Templates used in the"Train the trainers" session.

Students are taught how to recognize different manifestations of bias in the fake news debate such as confirmation bias, group bias and repetition bias.

- the seniors are also trained as to what is their role:
- they must ensure that the students are the protagonists of the session
- they should create an atmosphere of trust, respect and mutual attention
- the concerns of all participants should be included
- the public may be heterogeneous especially regarding news consumption
- trainers should not invalidate their participants' views,ideologies or referents
- how to adapt their tone based on their public



These training courses are carried out with the collaboration of Verificat —the Barcelona-based fact-checking platform recognised by the International Fact-Checking Network and the European Disinformation Laboratory and which has previously worked with Google and the European Commission— according to which they provide materials for the workshops and co-direct some of the pilot sessions.

PEER-TO-PEER TRAINING WORKSHOPS – UPF-SENIOR (FEBRUARY 2024)

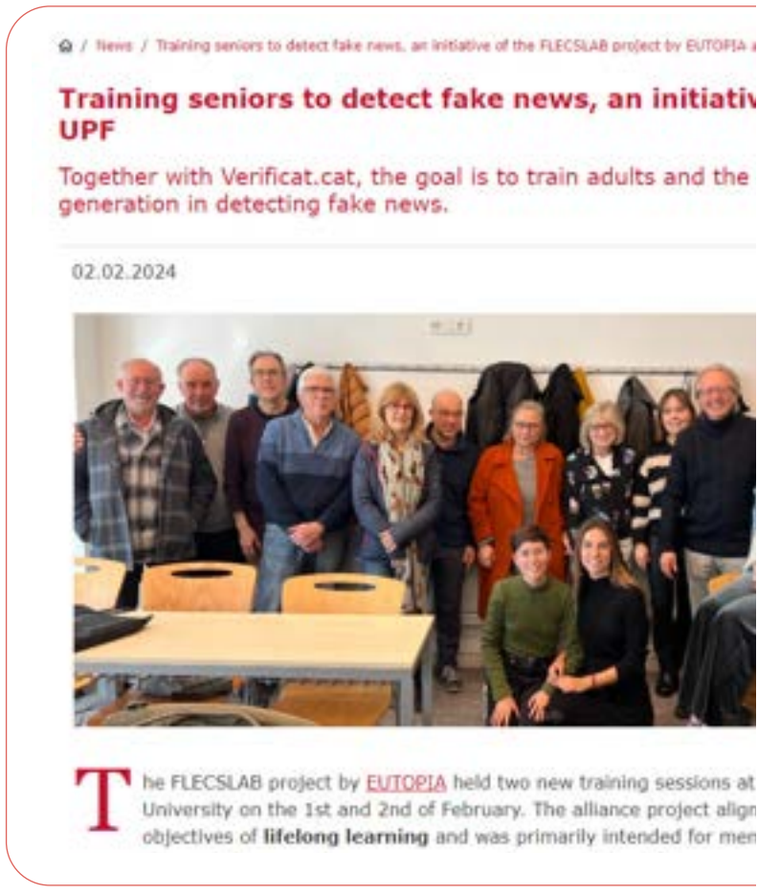


Figure. 32 First cohort of UPF Senior peer-to-peer trainees.

UTOPIA at UPF

iative of the FLECSLAB project by EUTOPIA at

f the elderly who, in turn, will educate people of their

Categories:

Eutopia

SDG - Sustainable Development Goals:

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or members of UPF

For more information

News published by:

Figure 33. Seniors attending the workshop training.

5. PEER-TO-PEER WORKSHOP

14. **For greater outreach, the course is held in various locations (Adult learning centres, libraries, social entities, sports clubs...)**
15. **Course: 2 hours. Ideal Group: 10-15 students**
16. **Project instructors may accompany trainer on first day for observation and feedback purposes**
17. **Short questionnaire handed out to students prior to course instruction**
18. **Follow-up post-session questionnaire that may identify progress and knowledge transfer**

With the volunteer trainees ready to go they themselves may choose the centre where they wish to begin their peer-to-peer training. The trainers may be present for the first session in order to observe proceedings and give feedback to volunteer.. They are to hand out a questionnaire prior to starting regarding their student's social media habits, news feeds and knowledge of disinformation practices. These are then stored for later analysis. Once this is done the course begins. Students are informed what they should be able to achieve once the session is completed, namely the capacity to identify dubious claims, to use the most adequate channels for verifying information and ability to transmit a comforting message about how to confront desinformation.

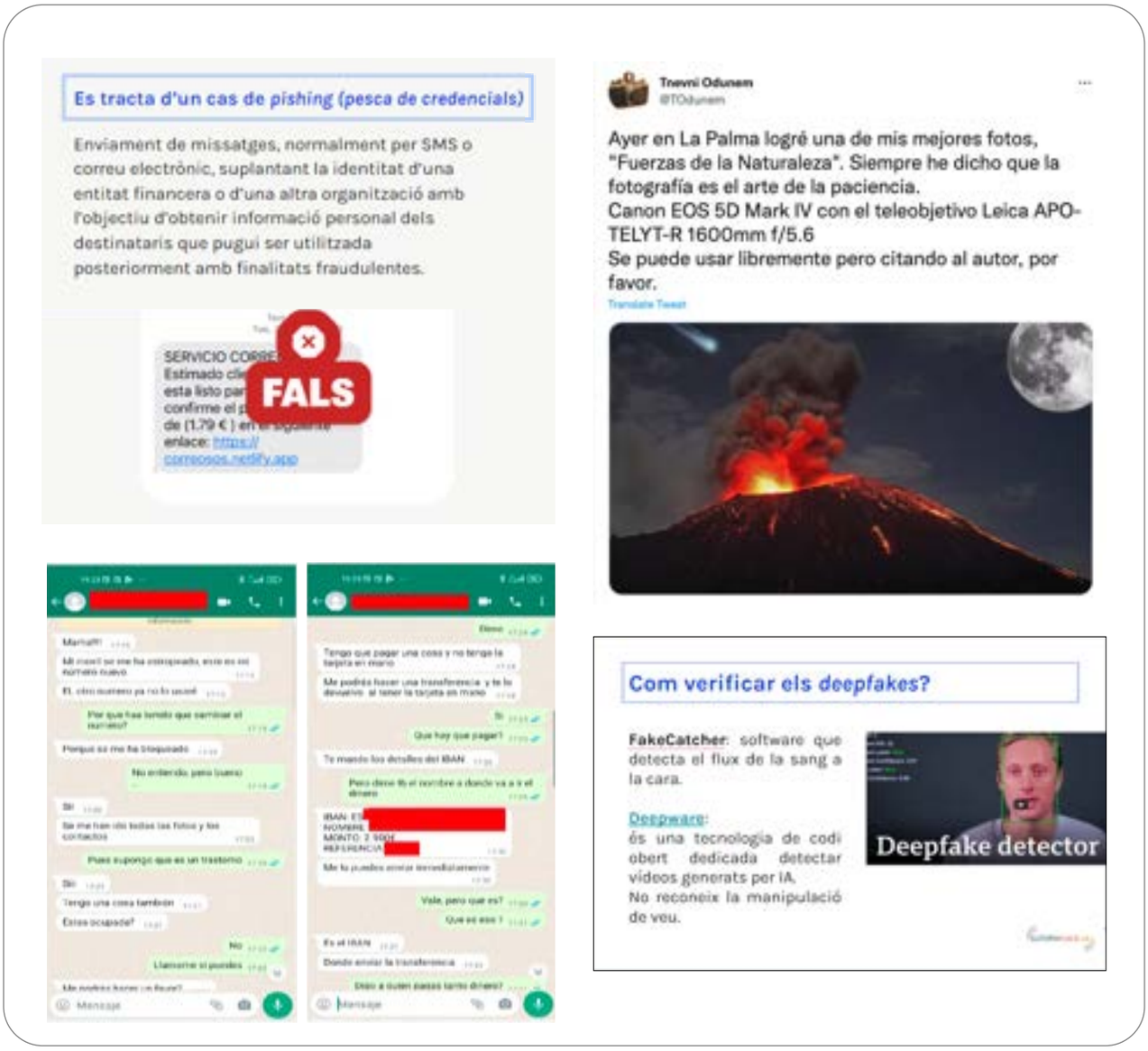


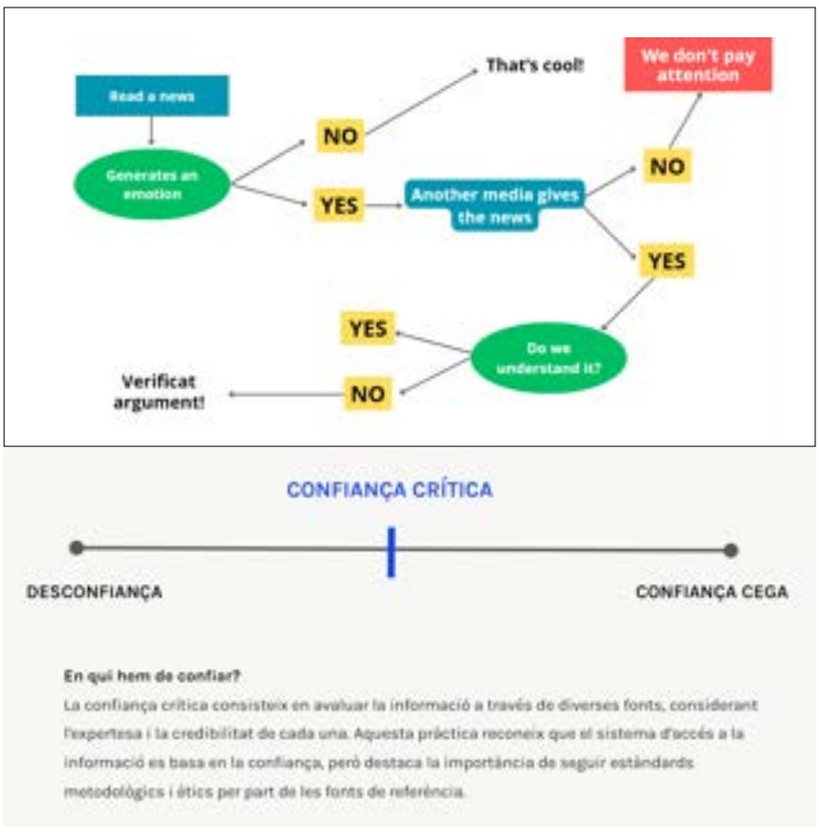
Fig 34. Examples of slides used in peer-to-peer sessions

The course content is of an eminently practical character and is focussed on helping the target audience in their day-to-day digital news consumption and includes the following ideas:

- difference between misinformation, disinformation and hate speech
- activity based on recounting a **personal experience** of one of these practices
- SMS ***phishing*** techniques and how to combat them
- fake **whatsapp messages** and how to detect them (content, language, style). The deployment of whatsapp by senior citizens is an important part of the training course "given that they tend to place their trust not in the medium, but in those who send them the information they can become not only consumers of disinformation but also disseminators". (Sadaba et al, 2023 p. 3) In Spain, 90% of smartphone owners over 55 years old use whatsapp (IAB Spain, 2019).

At every stage, key concepts should be explained in an accessible manner and if necessary can be decoded through the use of simple graphic formats:

- how the Internet has facilitated these practices
- how to trust the **source**
- **individual vs. collective effects** of disinformation
- information **saturation**
- role of **emotions**
- facts versus opinion
- cognitive and collective **bias**
- identifying dubious claims
- the **SIFT** model (Stop, Investigate, Find, Trace)
- deep fake **photography**
- empower students to combat fake news
- change news habits



The trainers encourage their peers to question more: i) who authored the news story?; ii) who sent it?; iii) why have I received it now?; iv) why is it so viral?: v) who does it benefit?; vi) does it contradict other stories?; vii) does it play on our emotions?

Once the course content is transferred and students have aired any final doubts, they are asked to complete a short follow-up questionnaire on identifying disinformation and fact-checking practices. These are collected and later compared to the pre-course questionnaire in order to check knowledge transfer. Once the adult students have left the classroom, the peer-to-peer trainer may be debriefed by the Flecslab team as to their performance and this feedback is used for the next session.

In summary the model looks like this:

6. MONITORING STRATEGIES

19. **Creation of a whatsapp application to check media literacy progress**
20. **Editing of 2-minute video capsules on disinformation**
21. **Co-creation by stakeholders (seniors) of glossary of disinformation-related terminology**

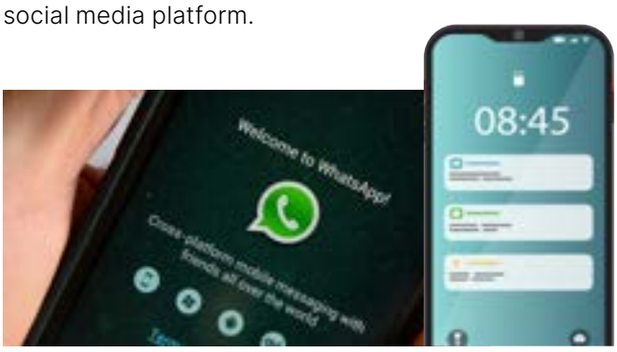
In addition to analyzing the responses of our senior learners through the pre and post-class questionnaires, a useful complement to monitoring the success of knowledge transfer once the face-to-face course is over is through the application of fact-checking practices and disinformation detection through the **creation of a whatsapp application** which can be directly accessed by senior learners.

Through subscription to the course, the seniors can receive updated contents designed towards improving their digital literacy skills through the solution of problems which they face on a day-to-day basis. Students are encouraged to

- share their whatsapp experiences
- to recognise its potential for multiplying disinformation
- to accept practical advice given to them in a clear language by way of examples
- to send dubious messages to fact-checking platforms such as Verifica't

The afore-mentioned organization ACEFIR could help with the diffusion of this Whatsapp course as the particularity of this course is that it will be developed in the Catalan language in order to access the Catalan-speaking senior universe and will have been based on a previous demoscopic study to enable researchers to know more about their specific problems regarding disinformation.

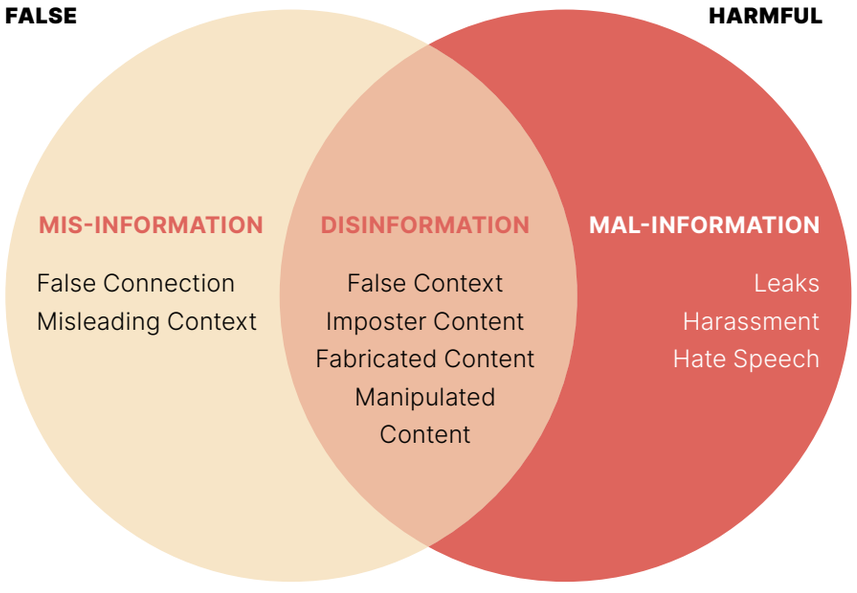
Short online questionnaires will be posted at the beginning and at the end of the course in order to have a sample of media literacy levels *ex ante* i *ex post* of those surveyed. Course instructors can also send examples of potential fake news stories and gauge the level of progress through the answers given on this social media platform.



In order to answer the questions posed on the whatsapp platforms, the seniors can consult the collection of **short (2-minute) videos posted online** which deal with disinformation issues. A potential guide to the videos could read as follows:

A **collective glossary** of disinformation-related terminology and vocabulary can be built up from student experiences (especially useful for non-native English speakers faced with the frequent anglicisms used in this field).

1. Key concepts: Disinformation, misinformation and toxic practices
2. Media literacy
3. News credibility
4. Fact-checking platforms
5. Journalism and disinformation
6. Seniors and disinformation
7. The threat of AI
8. Bots on social media
9. Disinformation during election campaigns
10. A disinformation checklist



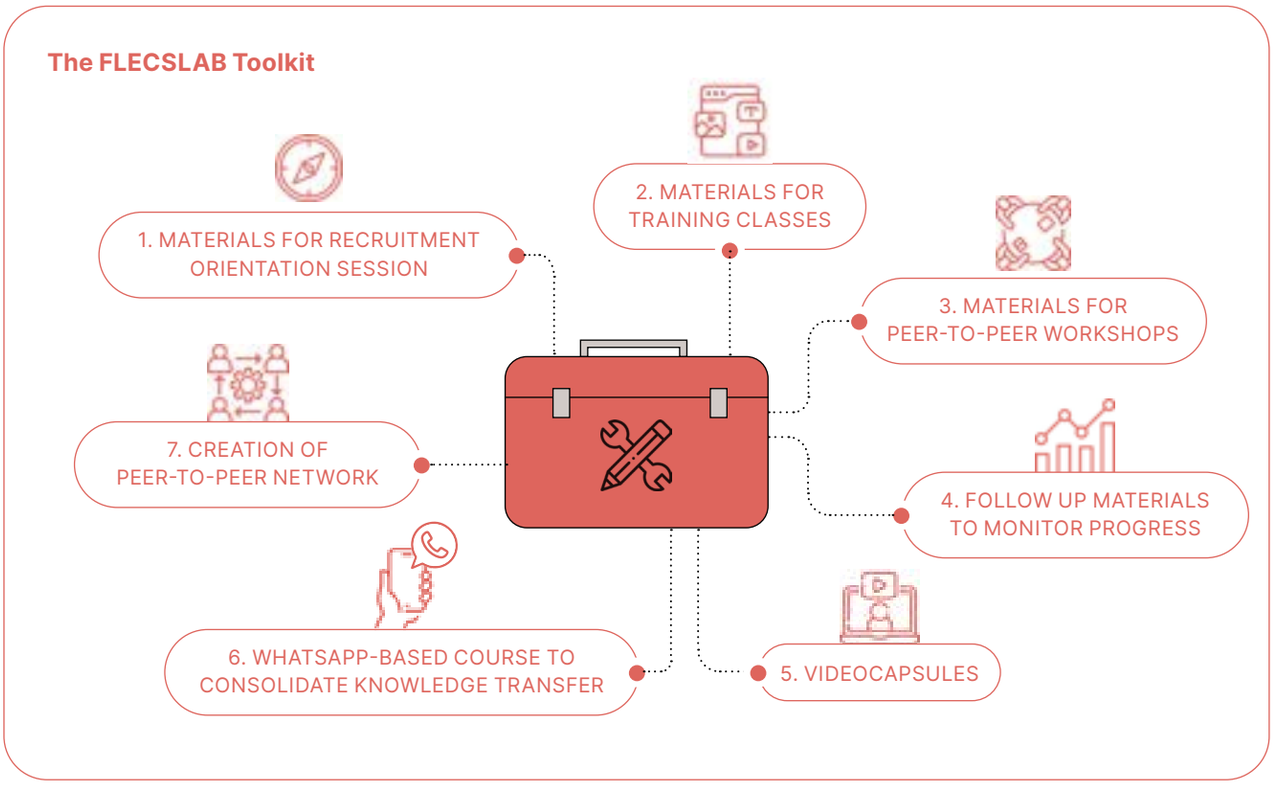


Fig 35. Example of slide used in peer-to-peer sessions.

DOES THE UPF FLECSLAB MODEL RESPOND TO THE LLL DIMENSIONS?

LEARNER CENTERED

Teaching materials that fit the characteristics of the mature learner	Tailor-made senior-oriented materials
The focus on personal human development	Through knowledge acquirement
Rapid, flexible and participatory learning alternatives	Adapts to all senior publics
Open, self-regulated learning	Peer-to-peer is self-regulated
Focus on interaction and collaboration	Through group recruitment and training sessions
Personalized learning pathways based on individual interests and prior experience	News verification skills can be used for all aspects of daily life

INNOVATIVE TEACHING / LEARNING & PROFESSIONAL DEVELOPMENT

Open educational resources (curricula, materials, resources...)	All available
Students actively cooperate with teaching staff in co-development and co-learning	Yes
Co-working with peers in identifying and formulating learning goals	Yes through P2P training
Focus on learning transfer to the real-life context: emphasize experiential learning; involve real life data and cases from real-life experiences	Various case studies are included
Interaction with other stakeholders/community engagement	Fact checkers / LLL organizations
Need to understand “adult learners plural cultural contexts	Considered
Extent to which course instructors can develop their LLL teaching skills	Huge options here
Opportunities for innovative methods	Clearly the case
Finetune skills regarding diversity / needs of LL learners	Model is open to accommodate this

CO-CREATION, COLLABORATION AND CONNECTEDNESS

Openness to new ideas	*Driving philosophy of the seniors project*
Develop an ecosystem whereby education, research and innovation combine	*Done*
Open education principles = HEI share practices and teaching approaches	*Yes*
Collaborative curriculum and course design	*Senior students have a big say*
Outreach / community engagement	*Already mentioned*
Co-design, co-creation, co-teaching co-assessment at all levels	*The project works due to this*
Focus on transdisciplinarity	*100%*

SUPPORT, GUIDANCE, ORGANIZATIONAL CAPACITY	
Improved LLL governance: degree to which LLL teaching is embedded in the educational model of the institution	Not fully there yet
LLL as central to the vision and not a side-line strategy	Work to be done
Increase cost-effectiveness of LLL schemes (blended / peer learning)	Pending
The fostering of a positive attitude culture towards LLL: the need to develop “good stories” around opening HEI to LLL institutions	Still a challenge
Targeted support towards vulnerable groups (e.g. migrants, elderly)	Done
Clear links with other education/training sectors (e.g adult training schools)	100%
The degree to which the learner is given centrality and autonomy	Maximum
Community engagement	P2P courses fulfill this role
Extent to which HEI are equipped to facilitate LLL and teaching	Adequate

VALIDATION, CERTIFICATION AND RECOGNITION	
Validation of non-formal learning	TBD
Importance of transversal skills	Total
Open assessment of learning outcomes	Done
Short programme credentials / study certificates	Yes

DEMAND FOR SKILLS	
Transdisciplinarity necessary for development of transferable skills	Yes
Need for analytical join-the-dots skills	Yes
New TICs = digital upskilling	Fundamental
Media literacy skills	Taught on the course

NETWORKED (DIGITAL) INTERNATIONAL INSTITUTION	
The HEI fosters digital inclusive innovation	Yes
Active support for use of digital technologies to enhance quality in teaching	Yes
Use of communication channels learners are familiar with (e.g. social media)	100%
International perspectives reflected in HEI approach to teaching	Yes
Interdisciplinarity	Yes
Link to societal challenges	100%

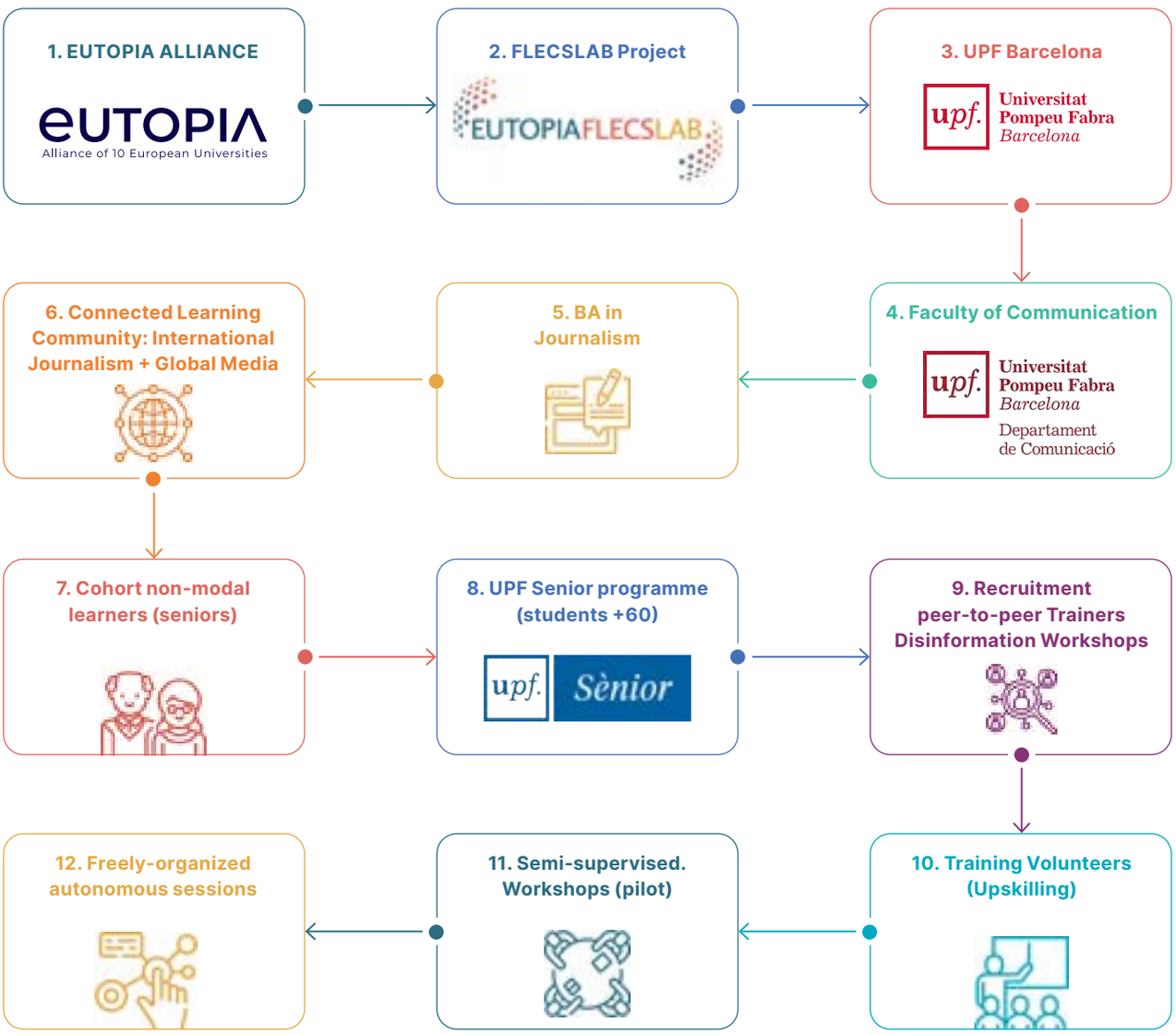
Step 4:

Find multipliers for your lifelong learning project

Two complementary factors to take into account when developing tools for Lifelong Learning initiatives are the social context in which they are employed and where they may flourish and the importance of their dissemination. In this sense the benefits of the "**multiplier effect**" have been well documented (Lang 2020; Wiseman et al. 2013; Strain 1988). It is therefore necessary to look beyond the immediate stakeholder as the main protagonist for the expansion of the project towards other networks, entities or organizational frameworks within which the model may evolve. To further develop the LifeLong Learning toolkit, project leaders should look to potential actors or allies in both public institutions, private companies and the so-called "third sector" made up of non-profit entities, associations and foundations.

As for the case study presented here, the FLECSLAB researchers reached out to actors (multipliers) in different sectors to further project their model.

Figure 36. The FLECSLAB roadmap.



MULTIPLIER 1: LIFELONG LEARNING ORGANIZATIONS

As the FLECSLAB progressed, researchers came into contact with various Lifelong Learning organizations with which they could interact and where they could present the seniors media literacy initiative. One such LLL structure is **ACEFIR** (**Catalan Association for Education, Training and Research**) an initiative that brings together a team of professionals from various disciplines with the common interest of working for education, training and research particularly focussed on adults and the elderly. ACEFIR is a member of the **European Association for Adult Education** (EAEA) and the **European Basic Skills Network** (EBSN). https://acefir.cat/↗

PARTICIPATION IN LEARNING DAY OF ACEFIR (NOVEMBER 2023)

ACEFIR is the most important organization in the field of Lifelong Learning in Catalonia and has participated in multiple European projects over the last thirty years. The FLECSLAB researchers contacted the ACEFIR President and veteran Lifelong Learning advocate Rosa Maria Falgas in the spring of 2023 who introduced them to the Lifelong Learning Platform↗, an umbrella organization that gathers 44 pan-European entities active in the field of education, training and youth and the EPALE↗ project (Electronic Platform for Adult Learning in Europe).

As a result of these contacts the researchers were invited to participate in the **Lifelong Learning Lab 2023** (the most relevant congress in the field of Lifelong Learning in Europe) held in the city of Girona on the 26th-27th June.

ATTENDANCE TO GIRONA LIFELONG LEARNING LAB 2023 (JUNE 2023)

The Lifelong Learning Lab Congress offered the FLECSLAB researchers multiple perspectives on the subject and allowed them to see two main challenges that lie ahead in this field. The former refers to *re-skilling* and reaching EU goals of full employment and the needs of the labour market while the latter is more closely tied to the health sector, occupational therapy and the benefits of the learning experience.

As regards the benefits of LLL for the economy, researchers were able to establish contact with the **Gentis Foundation,** an organization specialized in re-

training adults in digital competence to facilitate their reintegration into the labour market.
https://www.gentis.org/en/

Thanks to the ACEFIR contact, the potential "multiplier effect" for the FLECSLAB model is enormous as thanks to their patronage of our project, various Town Halls, adult training centres and senior citizens organizations have contacted the project leaders in order to host media literacy and counter-disinformation workshops.

Following the Girona Lifelong Learning Lab Congress, the FLECSLAB team were then invited to present their project during the "Adult Learners' Day" ("Dia de l'Aprenent"), an annual forum for the presentation of different projects by association in the LLLI sector. This took place in November 2023 and was an excellent opportunity to make solid ties with the LLL community in Catalonia and to present the FLECSLAB project.

In general terms the project has been well received and many local associations are willing to cooperate in the widening or multiplication of the FLECSLAB workshop network. The research team reached a formal agreement with ACEFIR according to which once the materials were fully developed for carrying out the media literacy workshops for seniors, this umbrella organization would help the researchers to establish a

Figure 37. Aleix Martí, FLECSLAB research assistant exposing the project in Girona (2023).

network of adult learning groups to extend the project as far as possible and would collaborate in the dissemination of the online Whatsapp media literacy course. Such adult learning groups could include publicly administered organizations at both a Catalan level such as AFOPAS (permanent Education Workshops for Seniors in Catalonia) or at a Spanish level such as CEATE (Spanish Confederation for Third Age Training).

MULTIPLIER 2: MEDIA LITERACY PROJECTS IN NEWS ORGANIZATIONS

Connecting to media literacy platforms launched previously by professional news organizations was considered a useful step towards widening the repercussions of the FLECLAB project. In that sense, Verificat is the leading fact-checking platform in Catalonia and is the only one recognised by the **International Fact-checking Network** (IFCN) and the **European Disinformation Observatory** (EDMO).
https://www.verificat.cat/↗

Verificat is a non-profit association with the aim of fighting misinformation and manipulation on the internet because it believes that "a better informed society is a more critical and democratic one". Located in Barcelona, the organization is made up of a wide group of journalists specialized in news verification and has wide experience in activities based on knowledge transfer and training in the field of media literacy. The FLECSLAB researchers came into contact with the organization by attending their media literacy workshops in 2023. These workshops consisted of three sessions during which both class dynamics and the type of contents used during the workshops were explained to adult students. The FLECSLAB team cooperated in these classes.

The attendance at and participation in the media literacy workshops organized by Verificat led to closer cooperation between the FLECSLAB team and a professional journalism fact-checking platform. This alliance between a public university and a non-profit organization has a multi-level multiplier effect:

- leads to the sharing of adult learner cohorts (Verificat had located its volunteers while the FLECSLAB team found theirs through the UPF Senior program)
- allows for the sharing, editing and exchange of in-class materials and results
- permits different didactic approaches to the same challenge: the FLECSLAB team in a more academic/teaching mode and the Verificat team from a professional hands-on perspective
- has led to the creation of mixed team teaching both in terms of age, gender and experience
- the FLECSLAB project is exportable to other larger fact-checking platforms in Spain such as Newtral, Maldita or, EFE Verifica which would lead to an undoubtedly wider "multiplier effect".

Figure 38. Verificat (fact-checking platform), partner in the elaboration of the workshops.

MULTIPLIER 3: ADULT EDUCATION PROGRAMMES: E.G. UPF SENIOR

It is clear that one of the most immediate multipliers of this peer-to-peer training model in media literacy could be in-house higher education adult education programmes. Many European universities have a life-long educational offer for the non-modal learner and these could be a source of stakeholders and potential trainers. By way of example, the UPF Seniors programme has between 150-200 year-on-year students over the age of 50 and aims to draw them closer to the university. Students can choose from over 200 courses and some of these include undergraduate courses on offer within the Connected Learning Communities —or CLCs— of the Eutopia Alliance.
https://www.upf.edu/web/upfsenior ↗

With regard to such programmes, the "multiplier effect" can manifest itself in various ways

- it offers a bigger net for capturing students who may be receptive to course aims
- it allows for greater guarantees when recruiting potential trainers. Previous in-class contact with senior learners can offer a certain guarantee to instructors when recruiting potential trainers for peer-to-peer instruction
- it can lead to a "word of mouth" effect among adult learners in other programmes at other educational centres. By way of example this institutional news release had precisely this effect.

Figure 38. Screen Capture of Seniors-UPF webpage.

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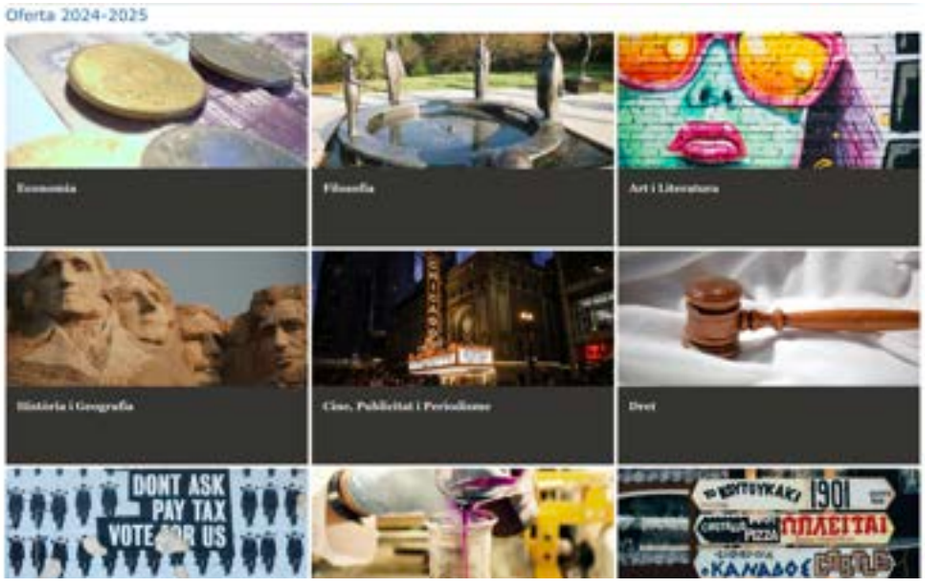


MULTIPLIER 4: PUBLIC ADMINISTRATION LLL / DIGITAL LITERACY PROGRAMMES: CIVIC CENTRES, LIBRARIES, NEIGHBOURS' ASSOCIATIONS

As a result of coinciding at LLL forums over the last year or so, the FLECSLAB research team has met representatives from many town halls, civic centres, libraries and neighbours' associations charged with creating adult education or LLL projects for their senior citizens.

Many of them have a vested interest in empowering their elderly and reducing the digital gap among their older local population and have approached the team to invite them to present their model in their respective towns. There is a clear "domino" multiplier effect here which requires coordination given the possible scale of such dissemination.

Figure 39. FLECSLAB seniors trainers.

MULTIPLIER 5: PRIVATE ENTITIES (FOUNDATIONS, CLUBS…)

Public administration aside, many private entities such as savings banks' foundations also have considerable funds set aside for senior citizen programmes as part of their mission to cater to their older clients. These organizations very often have their own spaces for such workshops and dispose of quality infrastructure in order to reach out to their elderly population and urge them to attend such programmes.

Figure 40. Caixa Savings Bank programme for LLL.

Figure 41. Flecslab presentation at Hospitalet sports club; Caixa Penedes Savings Bank LLL project.

MULTIPLIER 6: INTERNATIONAL COMMUNICATION / EDUCATION CONGRESSES

A key element of the FLECSLAB project —given its multi-university and pan-European character— is the need to project the model into the international media education forum. This is necessary in order to compare and contrast the present model with other initiatives which may be already in operation in Europe, submit it to analysis and then to finetune the proposals based on the comments made.

This process is in fact already underway. One such example of the interest generated by the FLECSLAB initiative is the acceptance by the Media Education section of the prestigious ECREA (European Communication Research Association) congress to be held in Ljubljana, Slovenia in September 2024. This could also be a way into building international alliances to further expand the project.

MULTIPLIER 7: MEDIA LITERACY WHATSAPP COURSE

A straightforward multiplier proposal is of course the whatsapp course that this model proposes. This flexible option caters to those non-modal learners who, although interested in the subject of disinformation, may not want or be able to participate in the workshops along with their peers. The tool proposed here is a 9-day whatsapp course that broadly follows a methodology adopted by fact-checking platforms such as Newtral or Mediawise.

Once the student has subscribed to the FLECSLAB Whatsapp channel he/she will receive a message with audiovisual content on one of the topics presented in the Digital Course. The singularity of this course is that it is to be directed especially at senior people so the contents will be segmented and adapted to this segment of the population.

In addition to the short didactic video, the senior citizen will receive a message with a quiz-type question in which he or she has to answer a question related to the video.

Here we can see the welcome message:

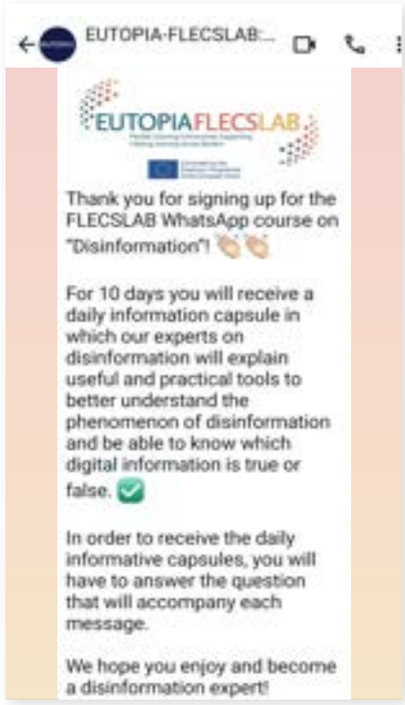
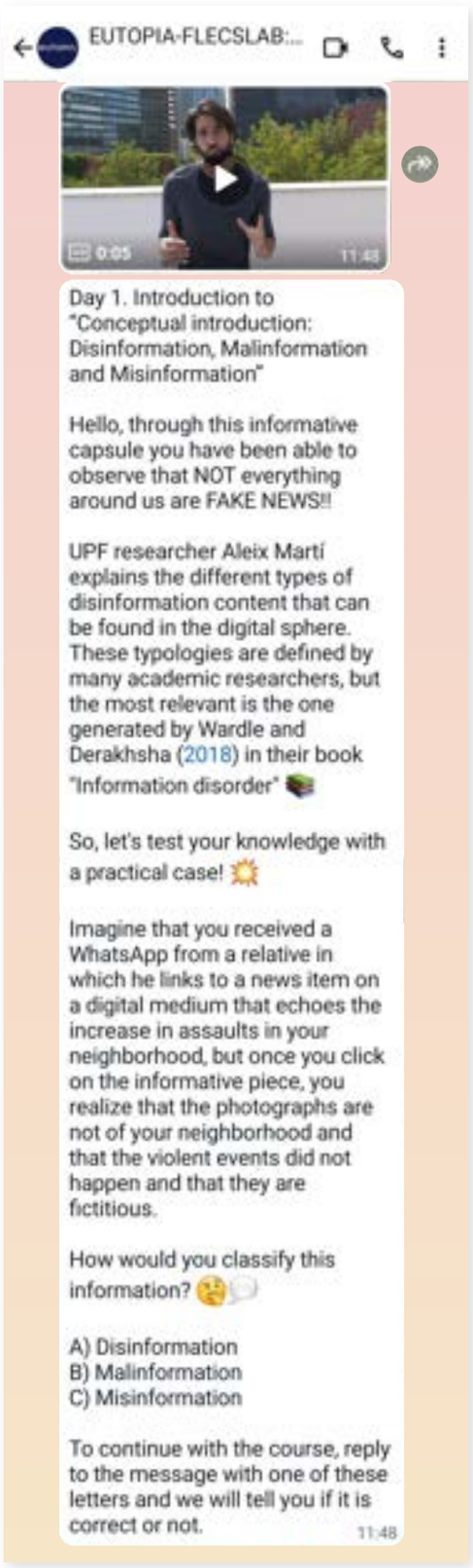


Figure 42. Screencapture of the welcome message of FLECSLAB digital course.

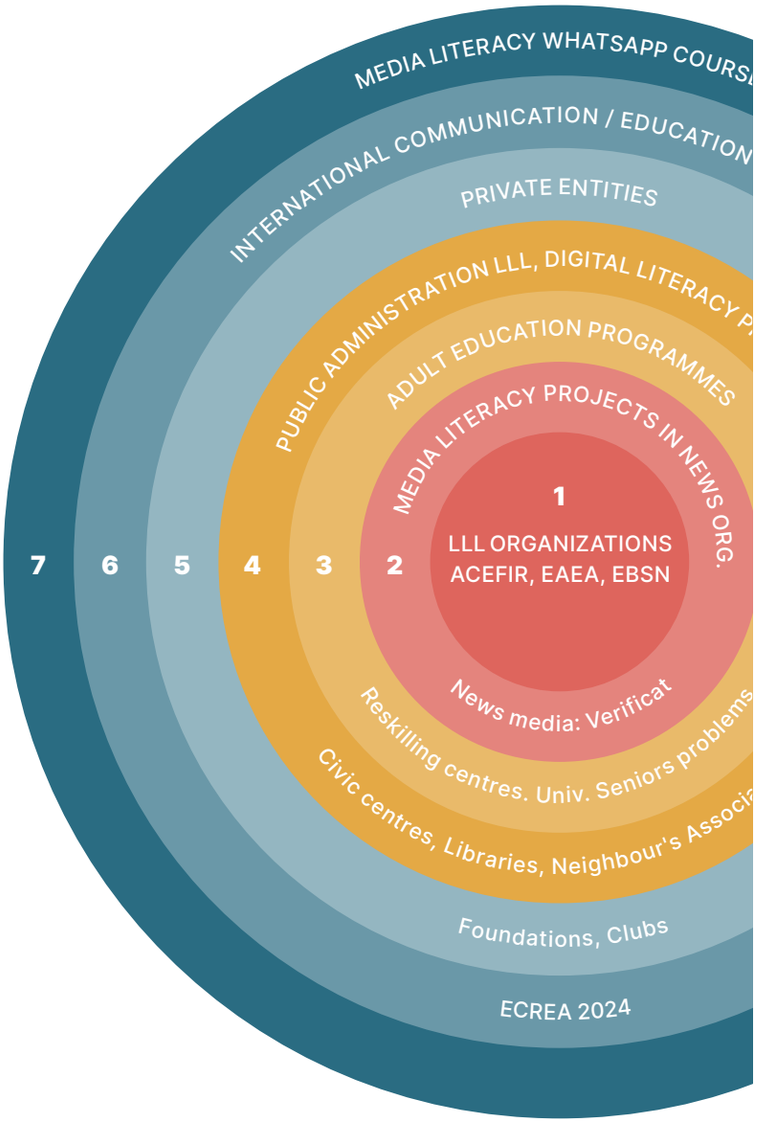
And here we have one example of the kind of messages they receive:



The wider distribution of the WhatsApp course will be largely carried out through the Lifelong Learning associations mentioned earlier here. Questioning the senior population about the concepts taught in the videos will allow researchers to measure their level of achievement and to gauge if such an application is a genuinely useful tool for them to increase their media literacy skills.

Figure 43. Screencapture of the FLECSLAB digital course.

Fig. 44. Multiplier effect of the Media Literacy project.



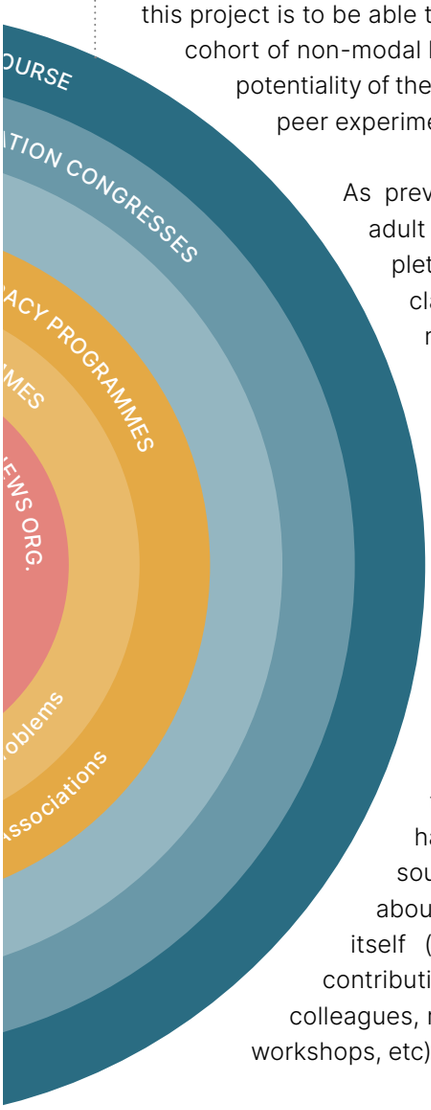
Step 5:

Results and future challenges: driving the project forward

As can be seen from the contents of this document, this LLL initiative is to a large extent a “work in progress” as many aspects of the project are still unfolding or need fine-tuning. Despite the ‘organic’ nature of the proposal there are some elements regarding its immediate future that can be addressed.

Impact of the workshops

It goes without saying that one of the key elements of this project is to be able to measure its impact on our cohort of non-modal learners and specifically the potentiality of the workshops and the peer-to-peer experiment in general.



As previously mentioned here the adult learners are asked to complete a questionnaire prior to the class in order to gauge their media habits, knowledge of misinformation practices and trust in news outlets. Following the peer-to-peer classes students are then asked to complete a second questionnaire where they are quizzed more specifically on their capacity to detect false information, to attribute responsibility for combating misinformation practices or for example if they have learnt how to validate sources. They are also asked about the design of the workshop itself (quality of the instruction, contribution and co-learning of class colleagues, recommendations for suture workshops, etc).

Researchers can then tabulate and cross-reference the answers to detect projected knowledge transfer or issues which may need addressing (for example, regarding the instructor or class contents).

Solid structure of multipliers

An additional challenge for the FLECSLAB model is how to consolidate the chain of multipliers involved in the development and dissemination of the project. This process has two main sides to it: the trainers and institutional collaboration. As for the former, there are at least three potential tasks at hand here:

- to assemble a solid team of peer-to-peer teaching volunteers
- to weave a network of mutual collaboration among them so they can exchange ideas, methods and tips to improve their classes
- create the conditions to allow for the volunteer network to work independently. Once the peer instructors are trained and their initial sessions have been supervised, they must be given free rein to operate

Once a body of instructors has been trained, the project must be dimensioned regarding the ambition of its outreach before formal agreements may be made with further education institutions, public bodies and civil society in order to carry out the workshops.

Share the toolkit / materials

providing the instructors with constantly updated and multilingual materials with which to work is also a task to be taken into consideration. This is a fast-moving field and the trainers must work with updated materials. This could be in a co-creation format based on their in-class experience. Aside from the content itself, the languages of instruction should also be taken into consideration here.

Institutionalization validation

Given how seriously the European Union has regarded the upskilling and reskilling of the European adult population, one of the main tools proposed to achieve this endeavour is the deployment of Micro-Credentials (MCs). Lifelong learning organizations have welcomed this initiative as a way of broadening access to learning opportunities for all and the senior citizen sector can be considered part of this. ●

Conclusions

The results from the Pilot Test on Senior Citizens, Media Literacy and Disinformation as a derivative of the Eutopia Connected Learning Community "International Journalism & Global Media" reveal various aspects regarding teaching innovation, flexible learning mechanisms and opportunities for non-modal learners. These ideas in line with the principles of open education can contribute both to the presentation of viable solutions for stakeholders and policy makers and to the projection of some conclusions regarding their incorporation into a rounded Lifelong Learning proposal.

The initiatives from the testbeds and the practical implementation of a model such as that used in the Senior Citizens and Disinformation project presented here allow us to analyse the operability of the components of the LLL Toolkit outlined in Part II of this report:

- a **multi-disciplinary approach** in order to tackle the challenges of societat issues forms a clear part of the DNA of these flexible learning pathways. Present in many of the CLCs (such as *Multilingualism* or *Design & Science* to name just two examples), it is clear that combining fields of knowledge and moving both the model instructor and the non-modal learner out of a monodiscipline "comfort zone" is a necessary step for increased synergy and greater inter-disciplinary connectivity. In the case of the digital literacy/ disinformation model presented here elements of technology, human psychology, communication and design are all present.
- **Team and project-based learning** runs across all the testbeds (relevant examples here include *Fundamentals of TV Direction* or *Technological Business Development*) reinventing along the way the standard instructor-student relationship. In-class hierarchies are re-assessed as students foster a more collective approach and the role of the content expounding "teacher" is reworked to be more that of a facilitator for the independent generation of knowledge and alternative proposals for its transfer. The radical "peer-to-peer" or "train-the trainers" approach employed in the senior media literacy model explained here is an exemple of how students renegotiated their relationship in the classroom to reach collective goals.
- As part of their push for viability, **problem/solution-based initiatives** are a key part of the Toolkit presented in this report. The collection of LC testbeds revealed that teaching strategies were often aimed at reaching practical proposals (*Urban Education* or *Entrepreneurship* are two such examples) as can be exemplified by the model presented at length here according to which a cohort of non-modal learners such as senior citizens have a vested interest not only in learning how to detect fake news but also how to avoid digital fraud given that they are a sector highly vulnerable to such cybercriminal practices.
- A **case study approach** is a natural derivative of such solution-based proposals. With regard to the seniors media literacy case explained in the report "real-life" issues are confronted directly in the classroon as older students aim to transform their (often negative) fake news/cyberfraud experiences through a case study-based teaching approach often explained by class peers handpicked and trained by course instructors. In order to reinforce this "real-life" strategy the course brings students into direct contact with practitioners and relevant organizations "in the field" (in this case fact-checking media platforms).
- The heterogeneous profile of the CLC course instructors has meant that the **reconfiguring of the "teacher" concept** forms a necessary part of the FLECSLAB Toolkit. This flexible definition of course instructor encompassed figures better defined as "teacher-coach", "expert", "external practitioner", "advisor", "technician" and, in the case of the seniors media literacy model dealt with here, even "peer trainers" which can be seen as part of a "circular" training model whereby learners become trainers.
- Along with the "classic" figure of the teacher, **the regotiation and increasing diversity of teaching spaces** could even be added as part of the Toolkit. Many of the CLC testbeds revealed their usage of "third space learning environments" such as the city itself (Urban Education), film studios (TV Direction) or hospitals (Nursing). This is particularly prevalent in the case of the seniors and media literacy project presented here given that our "peer trainers" venture out to alternative teaching spaces such as adult education centres, social clubs or day care centres.
- In order to deploy the Toolkit and thus increase the viability of such a model, this report makes it clear that the stakeholders play a vital role and are to be welcomed aboard the LLL project. **Co-creation with industry representatives** is a clear trait of the majority of the FLECSLAB Leaning Communities as close partnerships are formed with a wide range

of non-academic actors. While architects and engineers may form part of an Urban Education course, the instructors behind the media literacy project presented here worked closely with a professional news verification platform Verifica't who entered the classroom to explain how they combat fake news in the newsroom and gave practical tips in highly didactic fashion to non-modal students such a senior citizens. As one interviewee put it, "collaboration and co-creation with industry stakeholders is paramount".

- A **collaborative and resource-sharing learning culture** is a key aspect of the LLL Toolkit outlined in this report. In the model presented here, this "open share" culture is employed at all levels. Staff share their knowledge and teaching material with students. These non-modal students are welcome to explain their experiences so that techniques can be developed to combat cyberfraud practices. The fact-checking platform called in on the project then shares its databank of examples, glossary of terms and practical guide to the students who once qualified as peer trainers then go out into the field to share their knowledge with their peers in non-formal teaching locations. Collaboration and resource generosity is key to the model.

- **Adaptability** and the capacity to embrace and provide instruments for change is an essential part of the model. This is due to many variables. One such factor is the profile of the non-modal learner. In the case of the seniors market (following the exemple presented here) one issue could be the age (and even generational) gap among the students given that it may range from 60 years old to learners in their early Eighties. Another could be the level of digital proficiency. While a learner in their early 60s may be familiar with information technology, that may not be the case for a class colleague twenty years older. Course materials and didàctic skills may need to be finetuned accordingly. The socio-linguistic background of learners must also be factored in to the teaching challenge in bi-lingual or dual language communities such as the case of Barcelona where courses may need to be offered in both Catalan and Spanish. In more general terms, the need to adapt to the LLL scenario may involve accumulative adaptability regarding face-to-face or online teaching, open timetables, academic or alternative learning settings, the level of co-creation and empowerment given over to students or the finetuning of a programme based on the specific needs of the learner.

- To increase the capacity for genuine deployment of the Toolkit, **digital technologies** must be incorporated as part of the model. While these are incorporated into many testbeds, nowhere is this more salient than in the case of the "senior learners and disinformation" model presented here. To begin with, the non-modal learners must bring their mobile smartphones to class in order to relate to the course material employed in class. An intelligent and directed use of the internet is also essential for tracking fake news or for searching for alternative sources of information. Students are also offered a fact-checking related whatsapp course for them to follow in order to implement their acquired disinformation skills. Given the very nature of how disinformation reaches this sector, it must be combatted on its own digital backyard.

- The **challenge of developing new skills** and updating previously-acquired competences is clearly embedded in the CLCs. On the one hand, this may reside in refining general aptitudes such as a capacity for analysis or simply keeping up with developments in the field of reference. On the other this may involve the acquirement and deployment of specific observation skills and digital tools in order to be for example, a credible and qualified news verifier (in the case of the seniors and disinformation model)

- Going beyond short-termism and aiming at longer more **sustainable goals** is a major element of the Toolkit. The **resilience** of the model will depend on its design, reliability, implementation and monitoring. In the specfic case offered here, the peer-to-peer disinformation training workshops are designed to grow exponentially as learners become trainers and a "domino" effect occurs regarding how the course materials are propagated. This can be clearly seen in the "multiplier effect" diagram at the end of the report.

In summary, the wide-ranging initiatives and training guidelines which emerge from the learning communities together with the Lifelong Learning and Higher Educational characteristics of the specific model presented here offer a holístic, flexible and integrated approach for non-modal students and a viable option for them to operate in a HEI landscape given its preference towards team-based learning, collaborative teaching, resource sharing philosophy and willingness to take on societat challenges supported by invested stakeholders which in turn act as a bridge towards community engagement and vouch for the sustainability of the project.●

Bibliography

Lifelong Learning

Ambrósio, S., Bago, J., Baptista, A. V., Fonseca, H. M. A. C., Quintas, H., & Santos, L. (2016). Academic success of mature students in higher education: A Portuguese case study. *European Journal for Research on the Education and Learning of Adults*, *7*(1), 57–73. DOI: https://doi.org/10.3384/rela.2000-7426.rela9079

Benavot, A., Hoppers, C. O., Lockhart, A. S., & Hinzen, H. (2022). Reimagining adult education and lifelong learning for all: Historical and critical perspectives. *International Review of Education*, *68*(2), 165–194. DOI: https://doi.org/10.1007/s11159-022-09955-9

Brigden, D.N. & Grieveson, B. (2003) *Lifelong Learning.* Primary Dental Care.;os10(1):31-32. DOI:10.1308/135576103322504094

Brashier, N. M., & Schacter, D. L. (2020). Aging in an Era of Fake News. Current Directions in Psychological Science, 29(3), 316-323. DOI: https://doi.org/10.1177/0963721420915872

Brunner, M., Eigbrecht, L., & Ehlers, U.-D. (2021). *Stonger Together: Towards inclusive student engagement of non-traditional students in Professional Higher Education*. The iPHE Consortium. Available at: https://esu-online.org/?publication=stonger-together-towards-inclusive-student-engagement-of-non-traditional-students-in-professional-higher-education

Burnell, I. (2019). Widening participation for non-traditional students: Can using alternative assessment methods level the playing field in higher education? *Widening Participation & Lifelong Learning*, *21*(3), 162–174. DOI: https://doi.org/10.5456/WPLL.21.3.162

Card, D. (1999). The causal effect of education on earnings. *Handbook of labor economics*, 3, 1801-1863. Available at: https://davidcard.berkeley.edu/papers/causal_educ_earnings.pdf

Candy, P.D. (1991) Self-direction for lifelong learning: A comprehensive guide to theory and practice. San Francisco, CA: Josssey-Bass.

Claxton, G (2000) *Wise up: The challenge of lifelong learning*. New York:-Bloomsbury.

Conesa, J., Garcia-Alsina, M., Gómez-Zúñiga, B., Monjo, T., Batalla-Busquets, J. M., Cruz Gil, M. C., Martinez-Argüelles, M. J., & Mor, E. (2021). *A vision about lifelong learning and its barriers* (ART-2021-127950). Article ART-2021-127950. *International Journal of Grid and Utility Computing*. Available at: https://zaguan.unizar.es/record/112408

Encarta. (2008) Lifelong learning. Available at: http://encarta.msn.com/dictionary_561547417/lifelong_learning.html

Eynon, R. and Malmberg, L.-E. (2021), Lifelong learning and the Internet: Who benefits most from learning online?. Br. J. Educ. Technol., 52: 569-583. DOI: https://doi.org/10.1111/bjet.13041

Field, J. (2006) Lifelong learning and the new educational order (2nd ed.). Stoke-on-Trent Staffordshire, Uk: Trentham Books.

Fryer, R.H. (1997) Learning for the Twenty-First Century: First Report of the National Advisory Group for Continuing Education and Lifelong Learning (Report PP62/31634/1297/33).

Gräther, W., Kolvenbach, S., Ruland, R., Schütte, J., Torres, C., & Wendland, F. (2018). *Blockchain for Education: Lifelong Learning Passport*. DOI: https://doi.org/10.18420/blockchain2018_07

Kilag, O. K. T., Malbas, M. H., Miñoza, J. R., Ledesma, M. M. R., Vestal, A. B. E., & Sasan, J. M. V. (2023). The Views of the Faculty on the Effectiveness of Teacher Education Programs in Developing Lifelong Learning Competence. European Journal of Higher Education and Academic Advancement, 1(2), 92–102. https://doi.org/10.61796/ejheaa.v1i2.106

Lang, J. (2023), "Workforce upskilling: can universities meet the challenges of lifelong learning?", *International Journal of Information and Learning Technology*, Vol. 40 No. 5, pp. 388-400. DOI: https://doi.org/10.1108/IJILT-01-2023-0001

London, M. (2011) Lifelong learning: introduction. *The Oxford handbook of lifelong learning*, 3-11.

Wulff, A. L., & Juul Lassen, A. (2024). Capacity for Competence Development: Unlocking Potential for Lifelong Learning in Later Working Life. Journal of Aging & Social Policy, 1-22.

Midtsundstad, T. (2019). A review of the research literature on adult learning and employability. *European Journal of Education*, *54*(1), 13–29. DOI: https://doi.org/10.1111/ejed.12321

Mikroyannidis, A., Domingue, J., Bachler, M., & Quick, K. (2018, June 26). *A Learner-Centred Approach for Lifelong Learning Powered by the Blockchain*. EdMedia: World Conference on Educational Media and Technology, Amsterdam, Netherlands. http://oro.open.ac.uk/55989/

Nguyen, T. T. H., & Walker, M. (2016). Sustainable assessment for lifelong learning. *Assessment & Evaluation in Higher Education*, *41*(1), 97–111. https://doi.org/10.1080/02602938.2014.985632

Pearson Company [Workforce] (2020) *The Evolution of Lifelong Learning in the Workplace*. YouTube. https://www.youtube.com/watch?v=IFJp6BxNHmY

Poquet, O., & de Laat, M. (2021). Developing capabilities: Lifelong learning in the age of AI. *British Journal of Educational Technology*, *52*(4), 1695–1708. DOI: https://doi.org/10.1111/bjet.13123

Sharples, M. (2000) The design of personal mobile technologies for lifelong learning. *Computers and Education*, 34, 177-193.

Tannenbaum, S.I. (1998). Enhancing continuous learning: Diagnostic findings from multiple companies. *Human Resource Management* 36, 437-452. DOI: https://doi.org/10.1002/(SICI)1099-050X(199724)36:4<437::AID-HRM7>3.0.CO;2-W

The contribution of higher education institutions to lifelong learning. (2020, April 2). UNESCO Institute for Lifelong Learning. https://uil.unesco.org/lifelong-learning/higher-education-lifelong-learning

UNESCO Institute for Lifelong Learning. (2022). *5th global report on adult learning and education: Citizenship education: Empowering adults for change*. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000381666

Universities as lifelong learning institutions – Some way to go. (n.d.). University World News. Retrieved 16 June 2022, from https://www.universityworldnews.com/post.php?story=20220521090607590

World Economic Forum (2023) *Defining Education 4.0: A Taxonomy for the Future of Learning*.Available at: https://www3.weforum.org/docs/WEF_Defining_Education_4.0_2023.pdf

PEER-TO-PEER

Boud, D. (2001). Making the move to peer learning. In Boud, D., Cohen, R. & Sampson, J. (Eds.) (2001). Peer Learning in Higher Education: Learning from and with each other. London: Routledge, 1-20.

Chandra, S., & Palvia, S. (2021). Online education next wave: peer to peer learning. *Journal of Information Technology Case and Application Research*, *23*(3), 157–172. https://doi.org/10.1080/15228053.2021.1980848

Tullis, J.G., Goldstone, R.L. Why does peer instruction benefit student learning?. *Cogn. Research* 5, 15 (2020). https://doi.org/10.1186/s41235-020-00218-5

Multiplier effect

Lang, Dawn. (2020) Center for Adult and Experiential Learning.

Strain, Michael. (1998) "Towards an Economy of Lifelong Learning: Reconceptualising Relations between Learning and Life." *British Journal of Educational Studies* 46, no. 3: 264–77. Available at: http://www.jstor.org/stable/3122083.

Wiseman, L. Allen, L & Foster, E. (2013) The Multiplier Effect. Corwin Publishers.

Media literacy / Digital competence / Digital gap / Fact-checking

Aufderheide, Patricia (1993). Media literacy. A report of the national leadership conference on media literacy. Queenstown, Maryland: *The Aspen Institute*. ISBN: 0 89843 137 9 https://eric.ed.gov/?id=ED365294

Barómetro de la Unión de Pensionistas (2021) INFORME Mayores. Available at: https://mayoresudp.org/la-participacion-de-las-personas-mayores-nuevo-informe-barometro-mayoresudp/

Besalú, R. & Pont-Sorribes (2021) C. Credibility of Digital Political News in Spain: Comparison between Traditional Media and Social Media. *Social Sciences*, 10, 170. DOI: https://doi.org/10.3390/socsci10050170

Besalú, R., Pont-Sorribes, C., & Martí, A. (2021). Perceived credibility of tweets by opinion leaders during the COVID-19 pandemic in Spain. *International Journal of Communication*, 15(2021), 5158-5185.

Brashier, Nadia & Schacter, Daniel. (2020) "Aging in an era of fake news". Current directions in psychological science. vol. 28. no. 3 pp. 316-323. DOI: https://doi.org/10.1177/0963721420915872

Carnahan, Dustin, Bergan, Daniel. (2022) "Correcting the misinformed: The effectiveness of fact-checking messages in changing false beliefs". *Political Communication*, vol. 39. num. 2 pp. 166-183. DOI: https://doi.org/10.1080/10584609.2021.1963358

Cucarella, Ll., Fuster, P. (2022). Informe sobre alfabetización mediática: contexto actual, legislación, casos de éxito, herramientas y recursos, y percepción y propuestas de especialistas y profesores. Laboratorio de Periodismo. Fundación Luca de Tena. Available at: https://laboratoriodeperiodismo.org/wp-content/uploads/2023/02/informe-alfabetizacion-mediatica.pdf

de Vicente Domínguez, A.M.; Beriain Bañares, A.; Sierra Sánchez, J. (2021) Young Spanish Adults and Disinformation: Do They Identify and Spread Fake News and Are They Literate in It? Publications, 9, 2. DOI: https://doi.org/10.3390/publications9010002

Digital Bank Maturity. Closing the Gap to Fully Digital User Experience in Banking (2022) Deloitte. Available at: https://www2.deloitte.com/hu/en/pages/deloitte-digital/articles/digitalbankingmaturity2022.html

European Commission (2022) *Guidelines for teachers and educators on tackling disinformation and promoting digital literacy through education and training.* Directorate General for Education, Youth, Sport and Culture. Available at: https://op.europa.eu/en/publication-detail/-/publication/a224c235-4843-11ed-92ed-01aa75ed71a1/language-en

Ferres, J.; Piscitelli, a. (2012). Media competence. Articulated proposal of dimensions and indicators [La competencia mediática: propuesta articulada de dimensiones e indicadores]. Comunicar, v. XIX, n. 38, pp. 75-82. DOI: https://doi.org/10.3916/C38-2012-02-08

Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science advances*, 5(1), eaau4586.

Hameleers, M., & Van der Meer, T. G. (2020). Misinformation and polarization in a high-choice media environment: How effective are political fact-checkers?. *Communication research*, 47(2), 227-250. DOI: https://doi.org/10.1177/0093650218819671

Herrero Diz, Paula; Conde Jiménez, Jesus & Reyes de Cózar, Salvador (2021). "Spanish adolescents and fake news: level of awareness and credibility of information". *Culture and Education*, vol. 33: 1. DOI: https://doi.org/10.1080/11356405.2020.1859739

Ivenicki, A. (2021). Digital Lifelong Learning and Higher Education: Multicultural strengths and challenges in pandemic times. *Ensaio: Avaliação e Políticas Públicas Em Educação*, *29*, 360–377. DOI: https://doi.org/10.1590/S0104-403620210002903043

Learn to Check - Fórmate contra la desinformación -. Link: https://learntocheck.org/

Lindqvist, M. H., Mozelius, P., Jaldemark, J., & Cleveland-Innes, M. (2020). A Literature Review of Higher Education Reform and Lifelong Learning in a Digital Era. *EDEN Conference Proceedings*, *1*, 189–197. DOI: https://doi.org/10.38069/edenconf-2020-rw-0021

Livingstone, Sonia (2004). What is media literacy?. *Intermedia*, v. 32, n. 3, pp. 18-20. AVailable at: http://eprints.lse.ac.uk/id/eprint/1027

Martí-Danés et al. (2023) Desinformación en la población sénior: el impacto de la verificación en la credibilidad informativa. Cátedra Ideograma - UPF de Comunicación Política y Democracia. Available at: https://bit.ly/49KjqzH

Martí-Danés, A., Besalú, R., Pont-Sorribes, C., & Gómez-Puertas, L. (2023). Analysis of news credibility in the digital press. Source types have a limited effect, while age, gender, and education are differential factors. *Journalism*, DOI: https://doi.org/10.1177/14648849231215190.

Moore, Ryan, C. & Hancock, Jeffrey. (2022) "A digital media literacy intervention for older adults improves resilience to fake news". *Scientific reports*, no. 12, 6008. DOI: https://doi.org/10.1038/s41598-022-08437-0

Nieminen, S., & Rapeli, L. (2019). Fighting misperceptions and doubting journalists' objectivity: A review of fact-checking literature. *Political studies review*, 17(3), 296-309. Available at: https://ddd.uab.cat/pub/caplli/2008/220411/empthrmededu_a2008p103.pdf

Papí Gálvez, N., i La Parra Casado, D. (2022). Informe 2022. Càtedra de Bretxa Digital Generacional. Les persones majors en l'era de la digitalització a la Comunitat Valenciana (Dades 2021). (Versió publicada). Alacant: Edita Càtedra de Bretxa Digital Generacional. DOI: https://doi.org/10.14198/bua.2022.papi.infv

Pérez Tornero, J. M. (2008). Media literacy: new conceptualisation, new approach. Empowerment through media education, 103-116. Available at: https://ddd.uab.cat/pub/caplli/2008/220411/empthrmededu_a2008p103.pdf

Ramon-Vegas, X, Mauri-Ríos, M. Rodríguez-Martínez, R. (2020) Redes sociales y plataformas de fact-checking contra la desinformación sobre la COVID-19. Hipertext.net, 2020, n.º 21, pp. 79-92. DOI: https://doi.org/10.31009/hipertext.net.2020.i21.07

Reuters Institute. University of Oxford (2023) Digital News Report 2023. Available at: http://reutersinstitute.politics.ox.ac.uk/digital-news-report/2023

Sádaba, C., Salaverría, R., & Bringué, X. (2023). Overcoming the Age Barrier: Improving Older Adults' Detection of Political Disinformation With Media Literacy. *Media and Communication*, 11(4), 113-123. DOI: https://doi.org/10.17645/mac.v11i4.7090

Secretaria de Polítiques Digitals del Departament d'Empresa i Treball de la Generalitat de Catalunya (2022) *Jornada de dinamització de la Internet Social 2023.* Available at: https://punttic.gencat.cat/article/es-realitza-la-presentacio-dun-estudi-sobre-la

SUM PROJECT "Senior United Against Misinformation". Link: https://www.wearesum.eu/

Valera-Ordaz, L., & Humanes, M. L. H. (2022). What Drives Selective Exposure to Political Information in Spain?: Comparing Political Interest and Ideology. In Contemporary Politics, Communication, and the Impact on Democracy (pp. 93-112). IGI Global.

Wardle, C. & Derakhshan, H. (2017) Information disorder: Toward an interdisciplinary framework for research and policy-making. Strasbourg: Council of Europe. Available at: http://tverezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf

Venkat-Kamesh, P. (2021) COVID-19 - Digital Transformation and Digital Competency - IJIRMPS Volume 9, Issue 3, May-June 2021. DOI 10.37082/IJIRMPS.2021.v09i03.029

Stakeholders

Cucarella, Lluís; Fuster, Pau (2022). Informe. Alfabetización mediática: contexto actual, legislación, casos de éxito, herramientas y recursos, y percepción y propuestas de especialistas y profesores. Laboratorio de Periodismo. Fundación Luca de Tena. informe-alfabetizacion-mediatica.pdf

Ferrés, J., & Piscitelli, A. (2012). Media competence. Articulated proposal of dimensions and indicators. [La competencia mediática: propuesta articulada de dimensiones e indicadores]. Comunicar, 38, 75-82. https://doi.org/10.3916/C38-2012-02-08

Nieminen, Sakari; Rapeli, Lauri (2019). "Fighting misperceptions and doubting journalists´ objectivity: A review of fact-checking literature". Political studies review, v. 17, n. 3, pp. 296-309. https://doi.org/10.1177/1478929918786852

Papí-Gálvez, N. y La Parra-Casado, D. (2023). La brecha digital generacional en la Comunidad Valenciana: principales indicadores y discursos (datos 2022). (Versión publicada). Alicante: Edita Cátedra de Brecha Digital Generacional. https://doi.org/10.14198/bua.2023.papi.brecha

Pérez-Tornero, José-Manuel (2008). "La sociedad multipantallas: retos para la alfabetización mediática". Comunicar, v. 16, n. 31, pp. 15-25. https://doi.org/10.3916/c31-2008-01-002

Sádaba, C., Salaverría, R., & Bringué-Sala, X. (2023a). How to teach the elderly to detect disinformation: a training experiment with WhatsApp. Profesional De La información, 32(5). https://doi.org/10.3145/epi.2023.sep.04

Sádaba, C., Salaverría, R., & Bringué-Sala, X. (2023b) Overcoming the Age Barrier: Improving Older Adults' Detection of Political Disinformation with Media Literacy. *Media and Communication*. 2023. Vol. 11. num. 4

General FLECSLAB bibliography

A European approach to micro-credentials | European Education Area. (n.d.). Retrieved 16 June 2022, from https://education.ec.europa.eu/node/1558

Anthonysamy, L., Koo, A. C., & Hew, S. H. (2020). Self-regulated learning strategies in higher education: Fostering digital literacy for sustainable lifelong learning. *Education and Information Technologies*, *25*(4), 2393-2414. DOI: https://doi.org/10.1007/s10639-020-10201-8

Blaschke, L. M., & Hase, S. (2019). Heutagogy and digital media networks: *Pacific Journal of Technology Enhanced Learning*, *1*(1), 1–14. DOI: https://doi.org/10.24135/pjtel.v1i1.1

Bührmann, A. D. (2021). Approaches in learning and teaching to promoting equity and inclusion. *Learning and Teaching Paper*, *12*, 11. Available at: https://eua.eu/resources/publications/959:approaches-in-learning-and-teaching-to-promoting-equity-and-inclusion.html

Castaño Muñoz, J., Punie, Y., Inamorato Dos Santos, A., Mitic, M., & Morais, R. (2016, February 19). *How are Higher Education Institutions Dealing with Openness? A Survey of Practices, Beliefs, and Strategies in Five European Countries*. JRC Publications Repository. Available at: https://publications.jrc.ec.europa.eu/repository/handle/JRC99959

Ehlers, U.-D. (2020). Ten Seconds of Future Universities. In *Future Skills: The Future of Learning and Higher Education* (pp. 175–212). Books On Demand. ISBN: 9783750494268

Ehlers, U.-D. (2020). *Future Skills: The Future of Learning and Higher Education*. Books On Demand.

EMBED. (n.d.). Retrieved 16 June 2022, from https://embed.eadtu.eu/

Europass. (n.d.). Retrieved 16 June 2022, from https://europa.eu/europass/en

European Commission. (2021). *Proposal for a Council Recommendation on individual learning accounts*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0773

European Commission/EACEA/Eurydice. (2022). *Towards Equity and Inclusion in Higher Education in Europe*. Publications Office of the European Union. Available at: https://eacea.ec.europa.eu/national-policies/eurydice/content/towards-equity-and-inclusion-higher-education-europe_en

European Council. (2016). *Council Recommendation on Upskilling Pathways: New Opportunities for Adults*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOC_2016_484_R_0001

European Council. (2022). *Council Recommendation on individual learning accounts*. Publications Office of the European Union. Available at: http://op.europa.eu/en/publication-detail/-/publication/a4eab5e6-e0f4-11ec-a534-01aa75ed71a1/language-en

European Council. (2022, June 16). *Council recommends European approach to micro-credentials* [Press Release]. Available at: https://www.consilium.europa.eu/en/press/press-releases/2022/06/16/council-recommends-european-approach-to-micro-credentials/

Eurostat Statistics Explained (2022) Estadísticas de aprendizaje de adultos. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Adult_learning_statistics&action=statexp-seat&lang=es

HEInnovate. (n.d.). HEInnovate. Retrieved 16 June 2022, from https://www.heinnovate.eu/en/homepage

International Commission on the Futures of Education. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000379707.locale=en

Joint Research Centre (European Commission), Ferrari, A., Oinas, S., Punie, Y., Nyman, L., Kapsalis, G., Collado, A., Hotulainen, R., Ilsley, P., Conrads, J., & Rämä, I. (2019). *Evidence of innovative assessment: Literature review and case studies*. Publications Office of the European Union. Available at: https://data.europa.eu/doi/10.2760/552774

Kato, S., Galán-Muros, V., & Weko, T. (2020). *The emergence of alternative credentials*. OCDE. DOI: https://doi.org/10.1787/b741f39e-en

Kiiskila, P., Hanafy, A., & Pirkkalainen, H. (2022). *Features of Micro-credential Platforms in Higher Education*. 81–91. DOI: https://doi.org/10.5220/0011030600003182

Mac Lochlainn, C., Nic Giolla Mhichíl, M., Wessels, O., Kiiskila, S., Pirkkalainen, H., & Palvalin, M. (2022). ECIU University Micro-Credentials: A vision for European learners, values, and priorities. *ECIU Micro-Credential White Paper Series*, *3*.

MCE. (n.d.). Retrieved 15 June 2022, from https://mce.eadtu.eu/

Mehta, S. V., Patil, D., Chandar, S., & Strubell, E. (2023). An empirical investigation of the role of pre-training in lifelong learning. *Journal of Machine Learning Research*, 24(214), 1-50.

Mikroyannidis, A. (2022). Work-in-Progress: Piloting Smart Blockchain Badges for Lifelong Learning. In M. E. Auer, H. Hortsch, O. Michler, & T. Köhler (Eds.), *Mobility for Smart Cities and Regional Development—Challenges for Higher Education* (pp. 746–753). *Springer International Publishing*. DOI:https://doi.org/10.1007/978-3-030-93904-5_74

OECD. (2018). *The Future of Education and Skills: Education 2030*. Organisation for Economic Co-operation and Development. Available at: https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

OECD. (2019). *Getting Skills Right: Future-Ready Adult Learning Systems*. Organisation for Economic Co-operation and Development. Available at: https://www.oecd-ilibrary.org/education/getting-skills-right-future-ready-adult-learning-systems_9789264311756-en

OECD. (2020). *Increasing Adult Learning Participation: Learning from Successful Reforms*. Organisation for Economic Co-operation and Development. https://www.oecd-ilibrary.org/content/publication/cf5d9c21-en

OECD. (2021a). *OECD Skills Outlook 2021: Learning for Life*. Organisation for Economic Co-operation and Development. Available at: https://www.oecd-ilibrary.org/education/oecd-skills-outlook-2021_0ae365b4-en

OECD. (2021b). *The State of Higher Education: One Year into the COVID-19 Pandemic*. Organisation for Economic Co-operation and Development. Available at: https://www.oecd-ilibrary.org/education/the-state-of-higher-education_83c41957-en

OECD. (2022). *Pathways to Professions: Understanding Higher Vocational and Professional Tertiary Education Systems*. Organisation for Economic Co-operation and Development. Available at: https://www.oecd-ilibrary.org/education/pathways-to-professions_a81152f4-en

Office for Students. (2021, May 26). Improving opportunity and choice for mature students. *Insight*, *9*. Available at: https://www.officeforstudents.org.uk/publications/improving-opportunity-and-choice-for-mature-students/

Pappas, C. (2013, May 8). *8 Important Characteristics Of Adult Learners*. ELearning Industry. Available at: https://elearningindustry.com/8-important-characteristics-of-adult-learners

Publications Office of the EU. (2022, May 25). *Council Recommendation on individual learning accounts—Preparation for adoption, ST 9133 2022 INIT* [Website]. Publications Office of the European Union. Available at: http://op.europa.eu/en/publication-detail/-/publication/bc13cbaa-dcc3-11ec-a534-01aa75ed71a1/language-en/format-PDF

Sabrià-Bernadó, B., LLinàs-Audet, X., & Isus, S. (2017). Determinants of user demand for lifelong learning in institutions of higher education. *International Journal of Training and Development*, *21*(2), 145–166. DOI: https://doi.org/10.1111/ijtd.12101

Sala, A., Punie, Y., Garkov, V., & Cabrera, G. M. (2020, July 3). *LifeComp: The European Framework for Personal, Social and Learning to Learn Key Competence*. JRC Publications Repository. Available at: https://publications.jrc.ec.europa.eu/repository/handle/JRC120911

Selingo, J. J., Clark, C., & Noone, D. (2018). *The future(s) of public higher education: How state universities can survive—And thrive—In a new era.* Deloitte Center for Higher Education Excellence in conjunction with Georgia Tech's Center for 21st Century Universities. Available at: https://www2.deloitte.com/content/dam/insights/us/articles/4726_future-of-higher-education/DI_Future-of-public-higher-ed.pdf

Stepanek Lockhart, A. (2022). Bringing together monitoring approaches to track progress on adult learning and education across main international policy tools. *International Review of Education*, *68*(2), 309–328. DOI: https://doi.org/10.1007/s11159-022-09947-9

Tigchelaar, Anne et al (2010). Niels Brouwer, Jan Vermunta (2010), Tailor-made: Towards a pedagogy for educating second-career teachers, *Educational Research Review*,Volume 5, Issue 2, 2010: 164-183.

TRANSVAL-EU. (n.d.). TRANSVAL-EU. Retrieved 20 June 2022, from https://www.transvalproject.eu/

Vicente-Saez, R. (2021). *Open Science in the digital era* [Aalto University]. Available at: https://aaltodoc.aalto.fi:443/handle/123456789/109975

Vicente-Saez, R., Gustafsson, R., & Van den Brande, L. (2020). The dawn of an open exploration era: Emergent principles and practices of open science and innovation of university research teams in a digital world. *Technological Forecasting and Social Change*, *156*, 120037. DOI: https://doi.org/10.1016/j.techfore.2020.120037

Volungevičienė, A., Brown, M., Greenspon, R., Gaebel, M., & Morrisroe, A. (2021). *Developing a High-Performance Digital Education System: Institutional Self-Assessment Instruments.* European University Association absl. Available at: https://eua.eu/resources/publications/953:developing-a-high-performance-digital-education-ecosystem.html

Wulff, A. L., & Juul Lassen, A. (2024). Capacity for Competence Development: Unlocking Potential for Lifelong Learning in Later Working Life. *Journal of Aging & Social Policy*, 1–22. DOI: https://doi.org/10.1080/08959420.2024.2349492

Xethali, A. (2021, June 28). *Adult education and training in Europe: Building inclusive pathways to skills and qualifications* [Text]. Available at: https://eacea.ec.europa.eu/national-policies/eurydice/node/11855_en

Zenasni, S.. Kuppens, T., Vaesen, J., Surmont, J., & Stiers, I. (2024). Conceptualizing Education for Sustainable Development in Urban Secondary Schools. *Education and Urban Society, 0*(0), 0-26. https://doi.org/10.1177/00131245241238001)

Appendix

1. LEARNER-CENTRED

Alignment to the individual characteristics of the mature learner

→ incl. disadvantaged learners; adult learners, etc.

Motivation of the mature learner

→ skills needs and competences demand
→ upskilling: reskilling; personal development; second chance education; career changes; etc. Mature learners look out for rapid and flexible learning alternatives to academic degrees incl. certificates, industry recognized certificates, digital badges, shorter degree programme, etc.
→ focus is on human development rather than on human capital

Widening access routes to education

→ inclusive
→ affordable (OECD, 2021; pay per use)

Stackable modular education

→ Not limited over time
→ EADTU project MCE, 2019; European Commission/ECREA/Euydice, 2021.

Open / self-regulated learning

→ Towards heutagogic learning

Individual tracking or prior learning and experiences

→ ownership by the individual
→ EU Recommendation on individual Learning accounts, EU Recommendation on Upskilling Pathways

Personalised learning pathways

→ Choosing their portfolio of modules according to personal skill needs and competence demands. Elements of choice and support and guidance enlarge. Students can build their own curricula or based on personal interests and prior experiences. Curricula are not anymore fully predefined but upfront given structure to a more flexible personalized and a participatory model.

Seeking International / European mobility and experiences

→ virtual mobility / blended mobility opportunities

Focus on interaction, collaboration

Adapted to cultural and linguistic context of the mature learner

2. PROFESSIONAL DEVELOPMENT

Professional training offer of learning designers and provides

Professional training offer of guidance providers

Professional training offer on training of validation of prior learning inlc. MC

Professional training offer on innovative and online assessment methods

Professional training about diversity & needs of LL learners

Development of and training of transferable skills

3. INNOVATE LEARNING AND TEACHING

Digital / networked didactics

→ EADTU project EMBED (2019): Digital education plan of EU for HEI

Sharing (open) educational resources

Collaborative course design and development

→ Students actively cooperate with professors / teachers / advisors in co-development and co-learning
→ Co-working with peers/learners in identifying and formulating together learning goals and assessment criteria "as well as defining learning activities and outcomes"

Active Learning methods

→ Involve real life data and cases from real-life experiences / Learning on-the-job
→ Self-regulated learning

Participatory model

→ Interaction with other actors and stakeholders / community engagement

Open assessment

→ credentials (digital) as MC, Open Badges, short programmes credits, industry recognised certificates
→ Sustainable assessment using Boud's framework

Cultural-relevant curriculum

→ the "need to understand adult learners' plural cultural contexts and identities so that effective learning could happen"

Widening access routes to education

4. CO-CREATION, COLLABORATION & CONNECTIVENESS

Knowledge creation: Openness to new ideas

→ Provide support for the identification of new ideas and their mutual exploitation.
→ The HEI integrates research, education and industry (wider community) activities to exploit new knowledge.

Knowledge exchanges and sharing

→ Develop and support an ecosystem whereby education, research and innovation are intertwined
→ Open education goes along with open science
→ Apply open science principles → The degree to which an institution facilitates research communities for sharing ideas, data, methods and results with local, national, regional and global collaborative networks of research participants
→ Apply open education principles → The degree to which an institution facilitates open learning communities for sharing practices, materials and courses

Knowledge Collaboration: Partnership among and collaboration with various actors and stakeholders

→ The HEI demonstrates active involvement in partnerships and relationships with a wide range of stakeholders of each ecosystem
→ Community engagement

Open Knowledge Practices through communities

→ Open Science and education sharing.
→ The transdisciplinary research practice is the major open practice adopted.

5. ORGANISATIONAL CAPACITY

Have an institutional strategy and a continuous assessment of its maturity of LLL

→ The degree to which LLL, teaching and education are embedded in the vision, educational model and goals of the institution.
→ The degree that LLL is central to the vision and not at the side-line of the strategies
→ The degree the institution fosters a culture encouraging positive attitudes towards LLL.
→ Potential of future capacity building in view of sustainability.

Have institutional support set up for LLL

→ Targeted support towards vulnerable groups

Sharing and openness

→ Have a explicit links with all other education and training sectors in LLL context
The degree that the learner is giving centrality and autonomy and the degree that the whole learning cycle is been considered
→ Partnership with local actors and stakeholders (community engagement)
→ Partnership with employers → employers support

Quality Assurance

→ The process where LLL courses, programmes, rules and regulations are evaluated and revised on a regular basis.

Governance

→ The way in which policies are translated to rules, regulations and actions that facilitate LLL

Finance

→ The extent to which financial resource are allocated to develop, support and stimulate LLL/Funding tends to come for a variety of source: 70% identified funding as the core problem and tuition fees still make the biggest contribution

Facilities (infrastructure)

→ The extent to which institutions are equipped to facilitate LLL and teaching

6. NETWORKED (DIGITAL) AND INTERNATIONAL INSTITUTION

Digital transformation and capability

→ The HEI fosters a digital culture and implements and monitors a digital strategy supporting innovation and entrepreneurship.
→ The HEI invests in, manages and continuously improves a fit-for-purpose digital infrastructure
→ The HEI actively supports the use of digital technologies of enhance quality and equity in teaching, learning and assessment. And the HEI uses communication channels the learners are familiar to work with such as social media.
→ The HEI actively uses open educational resources, open science and open data practices to improve the performance of the institution and increase its impact on its ecosystem.
→ The HEI makes full use of its digital capacity to promote sustainable and inclusive innovation and entrepreneurship.

The Internationalized institution crossing broders

→ The connectiveness is transnational
→ Internationalization is an integral part of the HEI's agenda.
→ The HEI explicitly supports the international mobility of its staff and students.
→ The HEI seeks and attracts international staff.
→ International perspectives are reflected in the HEI's approach to teaching
→ The International dimension is reflected in the HEI's approach to research

Crossing sectors and disciplines

→ The connectiveness multiple and/or interdisciplinary (crossing various disciplines, sectors, academic topics).
→ Being linked to societal challenges.