

3D² FRAMEWORK

FOR PROFESSIONAL REFLECTION AND SELF-RECOGNITION

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TOWARDS OPEN EDUCATIONAL PRACTICE

In the context of the enhancement of teaching and learning, the shift towards open educational practice (OEP) is significant. Cronin (2017) includes in the OEP descriptor a broad range of practices that include the creation, use, and reuse of open educational resources (OER) as well as open pedagogies and open sharing of teaching practices. The potential of OEP to transform and (re)professionalise teaching and learning by enabling effective pedagogy and increasing digital capacity is of relevance within the current emphasis on modernising and transforming higher education (HE). For example, Weller (2014:11) gives this example of a course that exemplifies OEP:

...encourages learners to create daily artefacts, suggest assignments, establish their own space online and be part of a community that extends beyond the course both geographically and temporally. (...) learners create their own blogs, and these are used for all their solutions. The course then automatically aggregates all these contributions into one central blog. All of this is conducted in the open.

The Cape Town Declaration (2007) emphasises the importance of ‘open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues’ as a form of open educational practice. In this line, Laurillard’s (2012) approach to learning design is useful and could be considered an example of an open pedagogic model. Coming from the principles of her conversational framework (2002), and drawing a comparison between the processes of research and teaching, Laurillard *et al.* (2013:18) commented:

...an improving knowledge and practice of learning design may only ever be developed as a natural and ongoing part of the process of teaching. It could be similar to the development of knowledge and practice in the context of research, where academics are familiar with the requirements of knowledge-building: to build on the work of others (from a literature search), to develop and test their own ideas (through experiment or debate), and to share their results (through publishing). Could the knowledge-building process for conventional and digital pedagogies work in a similar way. Could we support academics as ‘teacher-designers’... with respect to their role in creating and designing learning activities.

She (2012) advocates a shift from the individual design of learning to the co-design of learning where teachers build ‘pedagogical patterns’ as part of an innovative, professional learning community, as follows:

- build on the designs of others;
- articulate their pedagogy;
- adopt, adapt, test and improve learning designs; and
- co-create and share learning designs.

These elements transpire in the following operational definition of OEP, understood as the open sharing of teaching practices, that will guide our work:

1. Engaging with an OEP involves building on the designs of others; and start articulating one's own pedagogy
2. An OEP involves collaboratively designing and discussing a course pedagogy with others.
3. An OEP shares a course pedagogy (not necessarily an open pedagogy) to others.

DISCIPLINARY AND CONTEXTUAL IDENTITY

We largely take on this processual approach to the development of OEP and add into it by considering that an extensive phase of **exploration and reflection** is necessary before teachers engage are ready to engage in the sharing of their teaching practice and OEP in general. In close relation to this, the very complex notion of identity lies at the very heart of who we are and what we do as teachers. It is fluid and flexible concept, often difficult to discern because it can only be indirectly observed through our words and behaviours. In simple terms, teacher identity comprises three overlapping components: personal identity (background, personality, personal experiences, culture etc), disciplinary identity (disciplinary affiliation, education and professional experiences), and contextual identity (institutional, local, national and international contexts, policies and practices) (Farr, Farrell and Riordan, 2019). It is the latter two of these three which are particularly useful as practical tools when considering the integration of technology into teaching.

In terms of being a teacher of my discipline in my own specific context who chooses to use technology in my practice, a series of questions are proposed here (and there may be several answers to these for one teacher working in different contexts). By answering these questions, teachers can develop a better understanding of their teacher identity and how it impacts on the appropriate integration of technology in their varied and various teaching contexts.

Attending to my **teacher role**:

- Do I mostly perceive myself as in control of the learning experience? If so, have I started to explore and discuss other possibilities?
- Do I use technology to design and deploy learning designs that move the focus from my delivery to facilitating and moderating the students' experience?
- If I use technology to place the focus on the students' experience, how does this impact my identity as a teacher? And, how do I communicate this to students and the wider teaching community?

Attending to my **discipline**:

- Do I feel like part of my professional discipline and communicate with others as a legitimate member of this community?
- Have I explored my disciplinary and pedagogic affiliations in a conscious way and have questioned what technology use means for my professional identity?
- Do I share my disciplinary and pedagogic insights on using technology for teaching with others in informal and formal ways?

Attending to my **local and institutional contexts**:

- Am I aware of how the local and institutional contexts impact on the way that I perceive myself as a teacher and how I portray myself to others through my words and actions?
- Do I consciously question and challenge the ways in which my teaching context impacts on my perceptions and practice?
- Do I consider the function of my practice, its impact on region, its importance for institutional benchmarking through evidence-based criteria, and share this in collaborative environments?
- What is the role of using technology in teaching within this?

And finally, attending to **societal considerations**:

- Am I reflecting on societal considerations such as outside expectations, students' characteristics or consequences of technological changes?
- Are societal considerations a key factor for me when making changes to my practice?
- Do I demonstrate the ways in which my pedagogy is critically oriented in public dissemination contexts when the opportunities arise?
- What is the role of using technology in teaching within this?

SHOUT4HE

Despite its potential, there has been little emphasis on individual educators' use of OEP for teaching in higher education, and evidence has shown that only a minority of educators use OEP (Cronin, 2017). The aim of the SHOUT4HE Erasmus + project is to address this gap by promoting the sharing of OEPs that utilise digital technologies. Guided by our operational definition of OEPs, the first key intellectual outputs from this project consists of a recognition framework where higher education lecturers and educators can access the description of a range of educational practices that best use technology. The second intellectual output is an E-Platform that will act as an open and online platform where project outputs can be published. Furthermore, the platform will allow HE teachers to communicate with and innovate others. The third output of the research is the creation of a set of e-resources so teachers to access and explore and reflect on several OEP examples.

Focusing on the first output, we aimed to produce a simple and intuitive tool that would serve as a recognition framework where higher education teachers could access the description of a range of educational practices that best use technology in HE learning and teaching. It was important that it was kept simple and usable by diverse audiences, that was informed by the literature, and that was ultimately underpinned by OEP. Work commenced with a thorough review of existing frameworks for digital educational practice, and we have collected those that we considered most relevant in Appendix 1, including those elements that we considered most valuable.

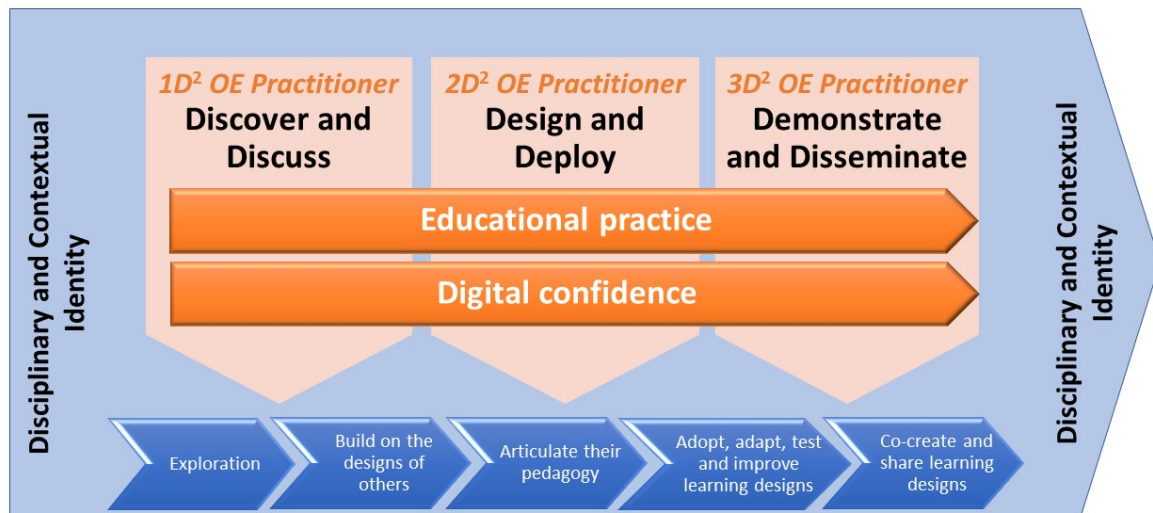
As a result, the SHOUT4HE Framework proposes a reflective exercise aimed at supporting the articulation and dissemination of learning and teaching practices supported with technology. While doing so, this framework is intended to serve as a 'screening' tool for HE-teaching excellent practices, and to promote their sharing through an OEP approach.

3D² FRAMEWORK

The *3D² Framework* is a processual representation which can be used to map individual or group educational practice. For example, a teacher could place their practice at a moment in time and point towards the direction that s/he wishes to go to. A group of teachers could map their practices and see how these differ from each other. Also, a whole community of practice could map their practice and form clusters of learning and teaching experience practice that can be interpreted in relation to their discipline, context, etc. The framework considers two different dimensions ('Educational Practice' and 'Digital Confidence') in three stages ('Discover and Discuss', 'Design and Deploy' and 'Demonstrate and Disseminate') as described in the figure below. As the teacher progresses through these incremental stages, the framework attends to the ways in which the professional gradually engages with OEP in the terms defined by Laurillard (2012): exploration, building on the design of others,

articulating one's pedagogy, adopt/adapt/test and improve learning designs, and co-create and share learning designs. This entire process starts and ends with an in-depth reflection on the ways in which the teacher's disciplinary and contextual identity is impacted and develops as a result from their engagement with uses of technology and their engagement with OEP.

3D² FRAMEWORK



DIMENSIONS

EDUCATIONAL PRACTICE

This dimension focuses on **the experience that teachers create for their students when using technology**. Ideally, this involved moving from a focus on the content, delivery and assessment, to a greater autonomous responsibility being negotiated with the learners. By “**empowering**” the learners, the framework designers imply the teacher’s role progressively moves towards that of a facilitator and moderator of the experience. From this perspective, students can have a role as partners and are strongly encouraged to engage collaboratively with each other. Students are more likely to have choice on the timing of the learning process, more flexibility, and self-control on how they engage. Also, we understand that the upper levels of development of educational practice, scalable solutions are found to extend and sustain teaching innovations, so they become manageable for the teacher. Because the success of such innovations is dependent on both students and teachers to negotiate and share responsibility, which is a concept that has been well dealt with by Nash & Winstone (2017).

DIGITAL CONFIDENCE

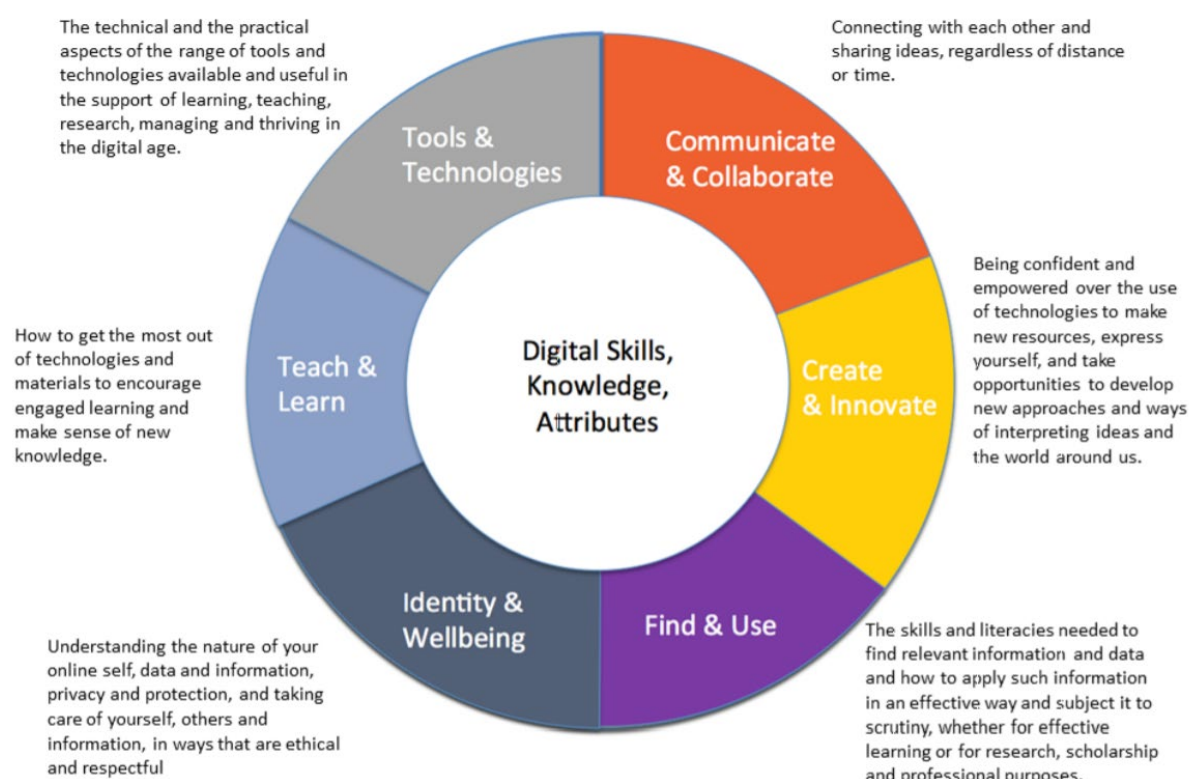
Teachers’ level of digital confidence will impact to what extent they integrate technology in their learning and teaching experience practice meaningfully and effectively. When considering existing models that would guide this recognition framework, it was important to choose one which was designed around a positive language, emphasizing confidence as opposed to a more evaluative, or even judgemental, ‘competence’. While comprehensive digital competence frameworks and evaluation tools were carefully considered (e.g. such as the European Framework for the Digital Competence of Educators, *DigCompEdu*), it was also important to us to select a simple and intuitive model that could engage a wide audience, to enhance the usability and practicality of our framework.

The digital skills and confidence framework presented below (<http://www.allaboardhe.ie/>) meets these criteria. Resulting of a project in the Irish HE context, it presents the skills and competences that teachers and students need to develop to make sense of the increasingly complex digital landscape we all now inhabit. The starting premise of the AllAboard project reflects that of SHOUT4HE, this is, that for sustainability and scalability, frameworks need to be embraced by the ‘user’ community (AllAboard, 2015):

The ethos of All Aboard is to promote engagement and generate the feeling of a participatory ‘campaign’. More traditional approaches to effect change or promote development within academic contexts usually involve complex committee structures, policy documents, metrics, etc., which whilst embodying a professional (and legitimate) approach run the danger of being added to a raft of other such

policy initiatives and have little impact on changing the prevailing culture which so often shapes practice (p. 34)

The development of this digital confidence framework was underpinned by an extensive review and reconceptualization of existing frameworks (see Appendix to this document) that resulted in the definition of the following areas of teaching and learning practice supported through technology:

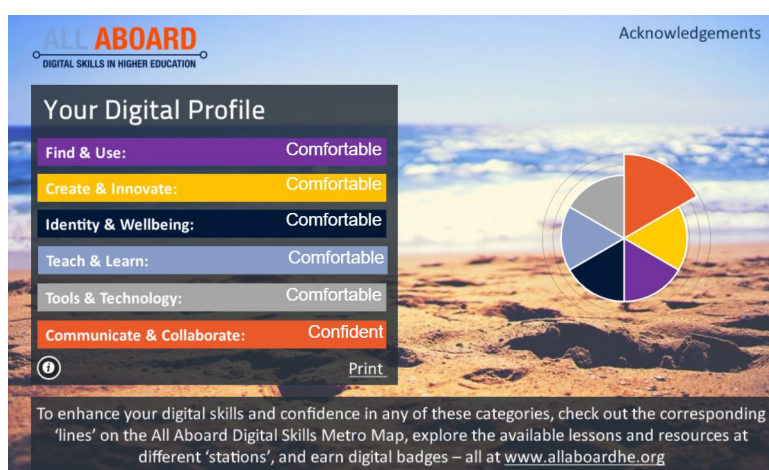


These areas were later articulated through the metaphor of a metro map, which extends the notion of exploration, journey and progress, alongside the separate categories in each of the metro lines, each of which corresponds to broad areas relevant to anyone teaching, learning, and being creative in a digital space:

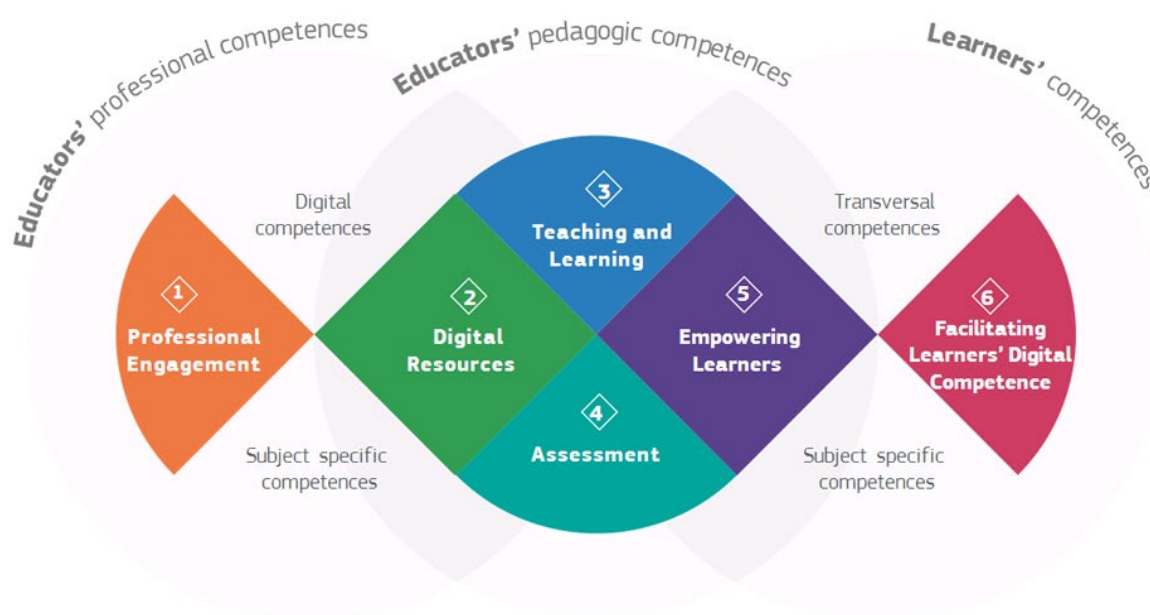
AllAboard Metro Map of digital skills



One of the main themes that has been identified as a possible gap within the literature and current frameworks available to higher education by the SHOUT4HE team is access to an effective self-evaluation tool. Although far more comprehensive and reliable tool exist (**such as the DigCompEdu CheckIn self-evaluation tool**), we are acutely aware of the highly constrained and time-poor environment in which teachers work, and the need to provide realistic and implementable tools that inspire teachers but also engage them efficiently. The AllAboard project offers a simple, but very accessible tool which teachers can use to discover their digital confidence profile by answering a few simple questions: <http://www.allaboardhe.ie/>. The result is an easily readable, intuitive profiling result that can serve as a quick tester of levels of confidence in each of the competencies involved in teaching innovation through technology.



However, those education practitioners that wish to explore their digital capabilities further are strongly encouraged to do so using the evaluation tool of the European Framework for the Digital Competence of Educators (DigCompEdu).



In order to allow educators and practitioners to self-assess their own digital competence, the DigCompEdu CheckIn tool has been developed in order to encourage educators to reflect on their digital competence with a deeper level of engagement and meaning. The self-assessment tool covers the six key areas of digital competence, with twenty-two individual competencies being addressed within this. There are six different levels of proficiency that are accounted for in the survey (A1, A2, B1, B2, C1 and C2), allowing educators to learn more about their personal strengths and the areas where they can enhance the ways in which they use digital technologies for teaching and learning. Importantly, the tool provides detailed feedback with useful tips to help with key milestones on educators' personal roadmap to innovating teaching.

Access the **DigCompEdu CheckIn** tool here (in English, and also available in German and Portuguese for the HE sector): <https://ec.europa.eu/eusurvey/runner/DigCompEdu-H-EN>

Note: please introduce SHOUT4HE in the participation code field. Aggregated anonymous data with this participation code will be extracted by the DigCompEdu team and shared for reporting purposes in the SHOUT4HE project¹.

¹ With thanks to Christine Redecker (European Commission, DG JRC, Institute for Prospective Technological Studies) for her collaboration

STAGES

There is an expectation that different ‘levels’ or extent of engagement are possible in each dimension, as with most of the frameworks we have reviewed, which might naturally consist of: (a) general awareness and information regarding the topic; (b) practical and effective skills being demonstrated; (c) a critical awareness and ability to both engage in sharing practice as well as contribute creatively to the domain. This is the perspective which informs the development of the *3D² Framework*. The model proposes three distinct stages which represent different levels of engagement from early exploration to the point where educators feel confident to share their educational practice, and even inspiring others, each of them underpinned by the different stages of development of ‘pedagogical patterns’ (Laurillard, 2012).

DISCOVER AND DISCUSS

The stage at which teachers discover and consider new opportunities to empower learners through their learning and teaching practice, interrogate their digital confidence and discover new educational technologies that may serve these opportunities, and start exploring their own disciplinary and contextual identity in relation to these issues. At this stage, the focus is still on the individual design of learning, but the practitioner is starting to open her/his practice through discussion, exploring and reflecting on other options, and is open to building on the designs of others.

DESIGN AND DEPLOY

The stage at which teachers engage in the design and deployment of initiatives to empower learners through their learning and teaching practice, use new educational technologies to do this while developing their digital confidence, and find the disciplinary and contextual fit for their new educational practice. At this stage, a shift from the individual design of learning to the co-design of learning commences, where teachers articulate their pedagogy and start to adopt, adapt, test and improve learning designs.

DEMONSTRATE AND DISSEMINATE

The stage at which teachers demonstrate the impact of their innovations through evaluation of their practice and disseminate their initiatives to empower learners through their learning and teaching practice, achieve a high level of digital confidence, and reflect on their own disciplinary and contextual identity. At this stage, focus has shifted away from individual design of learning to one that is inspired by OEP and contributes back to the teaching community with sharing of practices. In an ideal case, teachers are part of an innovative, professional learning community, where teachers co-create and share learning designs (Laurillard, 2012).

3D² DESCRIPTORS

The descriptors for the *3D² Framework* were developed so higher education lecturers and educators could recognise their current educational practice and derive inspiration for development in a series of aspects in each of the dimensions and stages. These descriptors were arrived through a conversational process, involving the project partners and a group of educational developers and teachers interested in OEP who participated in the first two multiplier event of the project (Hasselt, 30th April 2019; Limerick, November 19th 2019).

EDUCATIONAL PRACTICE: DESCRIPTORS

When using technology in my teaching...			
	Discover and discuss	Design and deploy	Demonstrate and disseminate
Student engagement	I mostly focus on good delivery of content with some elements of active learning	I design and deploy educational practices that engage students in their learning process	I evaluate the effectiveness of my approach to student engagement and disseminate my practices.
Consideration of students' diversity	I consider my students' needs and discuss these with students and my colleagues.	I provide flexible access to the content and learning process based on my students' diverse needs.	I evaluate and disseminate my practices that respect individual student needs and diverse communities needs
Student empowerment	I alone set the content, activities and assessment, but I am open to sharing some of this responsibility.	My students partly co-manage and/or co-create the content and activities (individually or collaboratively)	My students are actors in the design and implementation of L&T activities
Sustainability	Teaching innovations mostly involve additional workload for me and/or my students, but I am open to exploring creative options to find more sustainable solutions	I design and implement scalable solutions that extend and sustain teaching innovations, so they become manageable for me and my students	I demonstrate, share and promote scalable solutions that extend and sustain teaching innovations with others, so they become manageable for other teachers
Open practice	I discuss educational practices with my colleagues, but mostly in closed and informal circles	I reflect and collaborate with my colleagues in designing educational activities and engage in continuous professional development	I adopt an evidence-based approach and share my practices (case studies, blog posts, presentations, publications, and mentoring others)

DIGITAL CONFIDENCE: DESCRIPTORS

When using technology in my teaching...

	Discover and discuss	Design and deploy	Demonstrate and disseminate
Find and use	I have a general awareness of the skills and literacies needed to find and use pertinent information and data effectively.	I engage with the relevant literacies needed to find and use pertinent information and data effectively.	I critically evaluate and disseminate my skills and literacies in finding and using pertinent information and data effectively.
Create and innovate	I am aware that technology can empower people to create new resources and express ideas.	I am confident and empowered in my use of technologies to create new resources and express ideas.	I critically evaluate and disseminate my use of technologies to create new resources and express ideas.
Identity and wellbeing	I am aware of the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.	I design and deploy practices that respect the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.	I critically evaluate and disseminate practices that respect the nature of the online self, data, privacy and the need to protect individuals and information in an ethical and respectful way.
Teach and learn	I am aware that the use of technologies and resources can be optimised to enhance teaching and learning.	I optimise the use of technologies and resources to enhance teaching and learning.	I critically evaluate and disseminate practices that demonstrate optimal use of technologies and resources to enhance teaching and learning.
Tools and technology	I am aware of the range of tools and technologies available and their practical applications to support learning and teaching.	I use a range of tools and technologies to support learning and teaching.	I critically evaluate and disseminate my use of a range of tools and technologies to support learning and teaching.
Communicate and collaborate	I am aware of the need for people to connect with each other and share ideas, regardless of distance or time.	I connect with other people and share ideas, regardless of distance or time.	I critically evaluate and disseminate the ways in which I connect with people to share idea, regardless of distance or time.
Open practice	I discuss issues of digital confidence and skills with my colleagues, but mostly in closed and informal circles	I reflect and collaborate with my colleagues to develop my digital confidence and skills, and my students'	I critically discuss and share my digital skills with colleagues and others (through teaching, CPD, scholarship, etc)

REFLECTION ON PRACTICE

As argued before, our understanding of this processual approach to the development of OEP is underpinned through an extensive phase of **exploration and reflection**. A comprehensive approach to the framework should include an iterative reflective exercise on the questions that were posed in the section 'Disciplinary and Contextual identity' above. The answers to this may well inform a teacher's developing reflective portfolio of practice as s/he progressively engages with technology and OEP.

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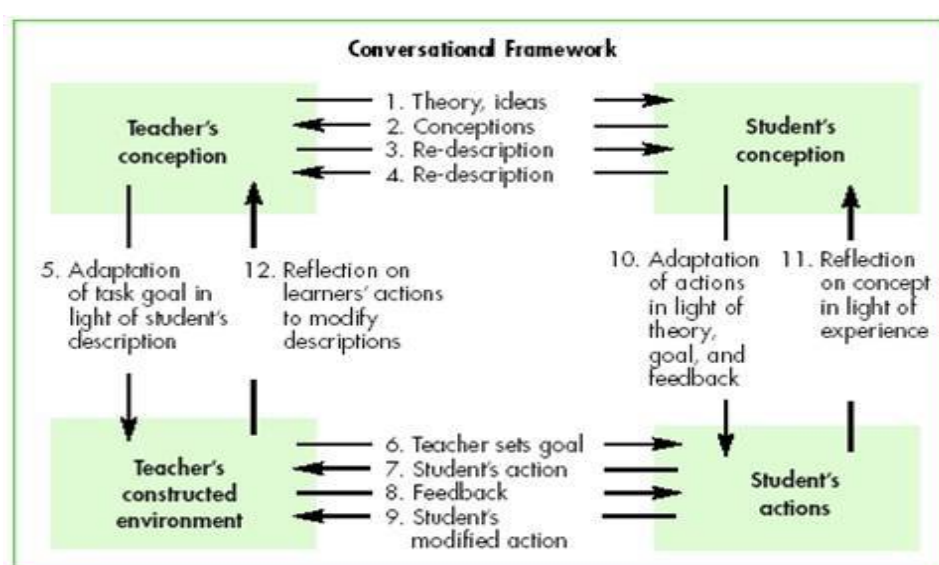
Appendix 1. Frameworks reviewed

The SHOUT4HE framework has been informed by a review of the following frameworks, in order of relevance:

CONVERSATIONAL FRAMEWORK

Her work is grounded in a theory-based framework of the learner learning and based on earlier analyses of how students learn, from which she developed her 'conversational framework' (Laurillard, 2002). The purpose of the framework is to assess if the environment can foster all aspects of the learning process (acquisition/instruction; inquiry; practice (with meaningful intrinsic feedback); production; discussion; and collaboration). It can also be used to assess and evaluate whether educational media, including OER, support the learning process.

Laurillard's Conversational Framework



Source: Laurillard (2002)

Laurillard (2012) and her colleagues developed a design tool ([The Learning Design Support Environment](#)) which is a software interface to help teachers to:

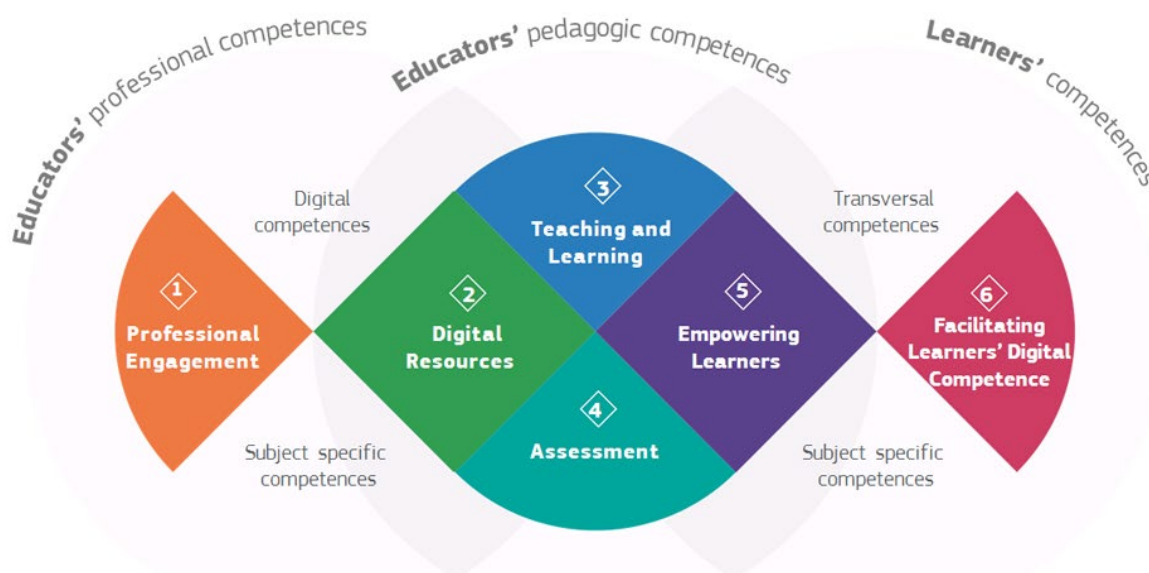
- articulate their effective teaching ideas for others to adopt;
- to adopt 'pedagogical patterns' of good teaching and open resources; and
- to model pedagogical and logistical benefits/disadvantages.

The Learning Designer has a 'pedagogical patterns collector' tool for capturing and articulating good pedagogy and a 'learning design support tool' for teachers to find, adopt, adapt, analyse, experiment, trial in practice, redesign, and share designs. The importance of open educational resources (OER) in learning design is highlighted.

A simplified description is available here http://edutechwiki.unige.ch/en/Laurillard_conversational_framework and there is an explanatory video here <https://youtu.be/6eOPWy75Aog>. Her framework has been highly influential, yet complex. Our project draws much inspiration from Laurillard's work, yet our main objective was to arrive to a more intuitive and straightforward model that can be maximised for practice.

DIGCOMPEDU

The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe. DigCompEdu is directed towards educators at all levels of education, from early childhood to higher and adult education, including general and vocational education and training, special needs education, and non-formal learning contexts. DigCompEdu details 22 competences organised in six Areas. The focus is not on technical skills. Rather, the framework aims to detail how digital technologies can be used to enhance and innovate education and training.



In order to allow educators and practitioners to self-assess their own digital competence, the DigCompEdu CheckIn tool has been developed in order to encourage educators to reflect on their digital competence with a deeper level of engagement and meaning (European Commission, 2019b). The self-assessment tool covers the six key areas of digital competence, with twenty-two individual competencies being addressed within this. There are six different levels of proficiency that are accounted for in the survey (A1, A2, B1, B2, C1 and C2), allowing educators to learn more about their personal strengths and the areas where they can enhance the ways in which they use digital technologies for teaching and learning. Importantly, the tool provides detailed feedback with useful tips to help with key milestones on educators' personal roadmap to innovating teaching.

Careful consideration was given to this framework, especially given the European dimension of the SHOUT4HE project. The levels of proficiency were adopted in a simplified version in our three-level progressive framework. While DigCompEdu is a hugely comprehensive tool, SHOUT4HE aimed to produce an intuitive, simple and usable tool for practitioners. For this reason, the AllAboard Digital Skills in Education map was adopted, while flagging the potential of DigCompEdu and its CheckIn tool.

Access the **DigCompEdu CheckIn** tool here (in English, and also available in German and Portuguese for the HE sector): <https://ec.europa.eu/eusurvey/runner/DigCompEdu-H-EN>

Note: please introduce SHOUT4HE in the participation code field. Aggregated anonymous data with this participation code will be extracted by the DigCompEdu team and shared for reporting purposes in the SHOUT4HE project².

3E FRAMEWORK

The 3E (Enhance, Extend, Empower) Framework (Smyth et al, 2011) is intended to provide educators and those supporting them with guidance and examples across a range of learning, teaching and assessment activities that show how technology can be harnessed to increase active learning (Enhance), and to underpin increasingly more sophisticated learning activities that reflect how knowledge is created, shared and applied in professional and other contexts (Extend and Empower). Smith originally developed the 3E Framework as the basis for Edinburgh Napier's Benchmark for the Use of Technology in Modules.

The development of the 3E Framework, with examples of how it has and can be used, is explained further in the book chapter: Smyth, K., MacNeill, S. and Hartley, P. (2016) 'Technologies and academic development', in D. Baume and C. Popovic (eds) *Advancing Practice in Academic Development*. London: Routledge, pp. 121–41. See <https://3education.org/3e-framework/> and https://blog.yorksj.ac.uk/moodle/files/2015/04/3E_A1.jpg

Our interpretation of the progressive approach to teaching innovation in the 'Educational Practice' dimension of the SHOUT4HE is inspired by the 3E Framework. However, differently from it, we felt that it was important that this dimension considered educational practice on its own, without reference to the use of technological elements yet. Also, due consideration was given to the element of 'co-responsibility' needed for teaching innovations to succeed, as Smyth's model heavily relies on the concept of student's collaboration.

DIGILEARN

The Digilearn framework (Melia and Williams, 2019) at University of Central Lancashire offers a four-stage model for the development of technology-enhanced practice: (1) identify approach, (2) recognise impact, (3) share and support, and (4) enhance practice. In doing this, the framework recognises the spheres of influence of teaching practitioners as they engage with the framework from the individual, to their faculty, institution and whole sector. The initiative emphasises the creation of a community of practice around Microsoft Teams and the Microsoft Educator Community. The UCLan DigiLearn recognition programme is an institutional recognition framework, that enables and empowers our colleagues in sharing their digital approaches, reflecting on practice and celebrating success. The framework is fundamentally defined around three levels of award (Practitioner, Advocate and Champion), with each stage acting as a pre-requisite for the next on the base of their engagement with the DigiLearn community in Microsoft Teams, their effective use of Microsoft Surface technology and their achievements on the Microsoft Educator Community. Along with these elements, each level holds its own set of unique additional criteria around sharing practice, initially at an internal faculty level (Practitioner) moving onto university level (Advocate) and finally, externally (Champion). Required evidence includes a combination of blog posts, written and video case studies, presentations and publications. Evidence of achievement is submitted, evaluated and recognised at Faculty, University and external level. See <https://teltblog.uclan.ac.uk/2018/10/05/digilearn-building-community-sharing-practice-and-recognising-achievement/>

This framework is useful as an example of a recognition framework, which is something that SHOUT4HE aimed to do from the outset. As in our framework, DigiLearn is defined around three levels of award which are clearly identifiable, best representing the level of achievements involved. Also, practice share is at the core of the framework and the many examples provided for practice sharing have been inspiring to us. However, this

² With thanks to Christine Redecker for her collaboration

framework is primarily focused around the use of Microsoft tools, which is not our case. Also, SHOUT4HE 3D² moves further by developing a framework applicable at inter-institutional and international level.

ADDIE

[ADDIE](#) Analysis, Design, Develop, Implement, Evaluate

Analysis Phase: In the analysis phase, instructional problem is clarified, the instructional goals and objectives are established and the learning environment and learner's existing knowledge and skills are identified.

Design Phase: The design phase deals with learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection. The design phase should be systematic and specific.

Development Phase: The development phase is where the developers create and assemble the content assets that were created in the design phase, test and review/revise based on feedback.

Implementation Phase: Includes facilitator training, and ensuring all necessary equipment is available and online access is functional

Evaluation Phase: The evaluation phase consists of two parts: formative and summative.

Elements of the ADDIE model are intrinsically integrated in our 3D² model, with special emphasis to the importance of the evaluation phase in the 'Demonstrate and Disseminate' stage of open practice development.

CARPE DIUM (GILLY SALMON)

[Gilly Salmon - 5 Stage Model](#)

[Write a blueprint – envision the future](#)

Here you work together in your Carpe Diem pods to lay out the essential aspects of what you aim to achieve. Your output will be an agreed mission statement

[Make a storyboard – become a designer](#)

Here you draw out the process of your learning, teaching and assessment in a visual way, working out your schedule, a sense of flow and alignment between the components. Practitioners can use the 5 stage model as a rough scaffold and your calendar for the delivery of the learning to participants to help you plan. It's their plan for transformation and impact.

[Build your prototype online](#)

Practitioners can try out their design in the online environment, and create some real practical testable e-tivities.

[Check reality](#)

Designs are tried out by colleagues as 'reality checkers', to give productive feedback.

[Review and adjust](#)

Preview the work so far, make adjustments, refine timings, flag up places to return to, indicate what additional work is needed and who should be responsible for it. Then an action plan is designed to see a way from the storyboard and prototypes to an operational design vision of the online or blended course.

Planning your next steps

Now the team is ready to build an action plan together

The Carpe Diem framework resembles the SHOUT4HE 3D² model in relation to the importance of the community of practice in the context of curriculum design, with an implicit importance place in openness in practice.

7C'S OF LEARNING (GRAINNE CONOLE)

[University of Leicester 7C's of learning design](#) - The 7Cs toolkit

The 7Cs of learning design is a toolkit for teachers, academics, lecturers, trainers and learning technologists responsible for designing, developing and teaching technology-enhanced learning programmes. It aims to enable the design of deep, engaging and enjoyable learning experiences for learners. The toolkit contains a set of [e-tivities](#) (activities to be done online, or with the help of online technologies), which will help teachers and other members of course design teams to create deep, enjoyable and engaging courses for learners in all disciplines. The resources are organised around the 7Cs: *conceptualise, capture, create, communicate, collaborate, consider and consolidate*.

The 7Cs resources have all been tried and tested by a wide range of teachers and course designers in a range of disciplines. Many of the resources are taken from the University of Leicester's [Carpe Diem](#) workshop for learning designers, as well as from the Open University's [OULDI project](#). For more information on the 7Cs model, see Grainne Conole's [update on the 7Cs of learning design](#) and G Conoles blog

<http://e4innovation.com/>. Their design toolkit is available here

<https://www2.le.ac.uk/projects/oer/oers/beyond-distance-research-alliance/7Cs-toolkit/how-to-use-the-7cs-of-learning-design-toolkit-for-designing-technology-enhanced-learning>.

Conole's work serves as inspiration not only as an instructional design framework, but also as an example of open pedagogical practice in action. She places the collaborative and open elements of the process of learning design at the centre, emphasising their impact on the reflection on action. These elements have also been incorporated through the SHOUT4HE 3D² model.

PUENTEDURA'S SAMR MODEL

[SAMR](#) Substitute, Augment, Modify, Redefine

The Substitution Augmentation Modification Redefinition Model (SAMR) shows a progression that adopters of educational technology often follow as they progress through teaching and learning with technology, which is determined by the level of student engagement.

In the Substitution level, computer technology is used to perform the same task as was done before the use of computers. This area tends to be teacher centric where the instructor is guiding all aspects of a lesson.

In Augmentation, computer Technology offers an effective tool to perform common tasks. This level starts to move along the teacher / student centric continuum. The impact of immediate feedback is that students may begin to become more engaged in learning.

In Modification, there is some transformation of the current practice.

In Redefinition, computer technology allows for new tasks that were previously inconceivable. At this level, common classroom tasks and computer technology exist not as ends but as supports for student centered

learning. Collaboration becomes necessary and technology allows such communications to occur. Questions and discussion are increasingly student generated.

More information is available in these resources: <http://www.hippasus.com/> and <https://youtu.be/9b5yvgKQdqE>

Puentedura's model has been criticised for lacking an empirical base for its model, yet its progressive nature and the importance of student centered learning is reflected in our model.

5C FRAMEWORK

Nerantzi, C. and Beckingham, S. (2015) 'BYOD4L: Learning to use own smart devices for learning and teaching through the 5C framework', in Middleton, A. (ed.) (2015): Smart Learning: Teaching and Learning with Smartphones and Tablets in Post-compulsory Education, pp. 108–126, Sheffield: MELSIG publication, available at www.researchgate.net/publication/277309988_BYOD4L_Learning_to_use_own_smart_devices_for_learning_and_teaching_through_the_5C_framework

The 5C Framework was originally developed as a thematic framework to guide the design of a series of short online courses for educators seeking to use online learning activities more effectively. In this original context the 5Cs – Connecting, Communicating, Curating, Collaborating and Creating – provided a focus for the different kinds of activities that learners can be engaged in online. The 5C Framework has since developed into a broader pedagogical framework that has been used in various contexts, and expanded with supporting evidence and guidance for those seeking to use it.

https://www.slideshare.net/suebeckingham/the-5c-framework-by-chrissi-nerantzi-and-sue-beckingham-46978275?from_m_app=ios

<https://chrissinerantzi.wordpress.com/>