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Fluid Hybrid Learning Spheres: Creating Dynamic Experiences

Authors: Dr Rikke Duus and Dr Mike Cooray

Editors: Björn Bachmann and Aimee Sander

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Authors:
Dr Rikke Duus
Dr Mike Cooray

The European Digital Education Hub (EDEH) is an online community for practitioners from all sectors of education and training aiming to contribute to improving digital education in Europe. To achieve this goal, EDEH is not only a place for exchange and discussions but also offers a variety of different events and activities. These activities include the squads that are online working groups where community members can collaborate on a specific topic of digital education. This document is the result of the work of the EDEH squad on diversity, equity and inclusion.

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Introduction

The purpose of this insights paper is to introduce the Fluid Hybrid Learning Spheres Framework (see below), which is designed to help educators create dynamic experiences with their learners. The framework is intended to support educators think practically about how to design hybrid learning experiences by adopting a multi-modal approach, i.e. simultaneous on-site and online attendance, combination of online and face-to-face engagement segments, and use of synchronous and asynchronous resources and collaboration. Whilst identifying how best to utilise and combine these different engagement methods can be a challenge, educators, especially those involved with secondary school, university, vocational and adult education, are encouraged to experiment, innovate and rethink the educational experience based on learners' evolving and complex learning needs and demands. The use of hybrid education can help to remove the traditional barriers that affect places, spaces and time for learning and create new opportunities for educators to create highly impactful, unique and unrestricted immersive learning experiences.[1]

The Fluid Hybrid Learning Spheres Framework provides insight and examples of how hybrid learning experiences can be designed by referring to three 'spheres' (i.e. Core, Extended and Propelled) to construct a specific learning experience, module or programme.

[1] Detyna, M., Sanchez-Pizani, R., Giampietro, V., Dommett, E.J. and Dyer, K. (2023). Hybrid flexible (HyFlex) teaching and learning: climbing the mountain of implementation challenges for synchronous online and face to face seminars during a pandemic. Learning Environments Research, 26, 145-159. https://doi.org/10.1007/s10984-022-09408-y.

Taking a Multi-Modal Approach to Hybrid Learning

The European Expert Network on Economics of Education[2] (2024), proposes that the terms "blended learning", "multi-method learning", "integrated learning" and "hybrid learning" can all be used to refer to learning designs that make use of various forms of online/digital and in-person/face-to-face engagement methods. In this insights paper, the terms "hybrid learning" and "hybrid education" are adopted and used in a holistic way to be inclusive of education and educational experiences that combine different digitally-enabled modalities with in-class/face-to-face learning formats and across synchronous and asynchronous delivery modes. In practice, this means that the traditional lines between learning modes are blurred and when designed well, come to interact synergistically to create new forms of learning experiences that extend beyond what can be achieved with a singular format (e.g. purely online, purely in person onsite, purely synchronously or purely asynchronously).[3] In many ways, a hybrid approach is well-placed to meet the evolving needs of diverse learner groups, which will continue to require educators and educational institutions to innovate and challenge the status quo[4].

Providing further specificity to how the terms "hybrid learning" and "hybrid education" are used in this insights paper, it includes programmes, modules, and learning activities that enable both on-site and online learners to participate and engage on an equal and real-time basis (i.e. on-site and online learners should be provided a comparative learning experience); as well as programmes, modules, and learning activities that combine online and face-to-face modes of engagement and participation (e.g. where learners attend one part of a course in person and another part of the course online). Within these online and in-person modes, educators can variate between synchronous (i.e. real-time engagement) and asynchronous (i.e. a resource that can be accessed in learnes' own time). When hybrid education is viewed through this holistic lens, it offers educators a plethora of options and opportunities to extend and stretch their education programmes and activities beyond the physical limitations of the classroom to engage learners from anywhere in the world who can join the classroom virtually; whilst also stretching beyond real-time education by using the asynchronous learning format. It should be acknowledged though that hybrid education can come with a heightened level of complexity as educators can combine online and face-to-face learning activities, asynchronous and synchronous learning sessions, and utilise the flexibility of learners' physical or virtual/online attendance[5].

For schools, universities, vocational education and lifelong learning institutions to make the most of these hybrid opportunities, it is essential that appropriate digital infrastructure is incorporated in the physical learning spaces and that both educators and learners gain familiarity with chosen digital tools and platforms.

[2] The European Expert Network on Economics of Education (2024

[3] Cohen, A., Nørgård, R. T., and Mor, Y. (2020). Hybrid learning spaces - Design, data, didactics. British Journal of Educational Technology, 51(4), 1039-1044. doi:10.1111/bjet.12964.

[4] Huth, M., Meyer, B., Westphal, L., Fischer, M., & Cominola, A. (2021). The impact of Covid- 19 on higher education - Are blended learning formats the way forward? SEFI. Berlin, Germany.

[5] Mayer, S., Refaie, R.A. and Uebernickel, F. (2024). The challenges and opportunities of hybrid education with location asynchrony: Implications for education policy. Policy Futures in Education. https://doi.org/10.1177/14782103231224507.

Introducing the Fluid Hybrid Learning Spheres Framework

The Fluid Hybrid Learning Spheres Framework is presented in Figure 1 with a summarised description of each of the three hybrid learning spheres in Table 1. The framework is designed to first draw attention to the Core Sphere of a hybrid learning experience: ensuring that on-site and online learners are provided a comparative learning experience and that digital and technology infrastructure is used to create a joined-up and collaborative learning space in real-time.

Table 1: Description of Hybrid Spheres

Sphere	Description
Core Hybrid Sphere	The focus is on creating a shared space for learners who are attending the learning session in-person on-site and for those who are joining the session via an online mode.
Extended Hybrid Sphere	The focus is on building on the Core Hybrid Sphere through the use of online synchronous and asynchronous learning platforms, and synchronous and asynchronous digital tools and platforms.
Propelled Hybrid Sphere	The focus is on new opportunities for exciting learning designs that transcend geographical boundaries, enable flexible learning modes, and ensure learners become equipped with essential and more advanced digital skills.

Each sphere contains opportunities to deepen learning by providing additional learning spaces and extending learning through engagement with others, e.g. collaborations between students, industry experts, academics, scientists, community leaders, entrepreneurs, large organisations, and alumni. Whilst the Core Hybrid Sphere typically acts as the starting point for a hybrid learning experience, educators can then decide which elements they wish to use as part of their hybrid pedagogical design from the Extended Hybrid Sphere and Propelled Hybrid Sphere. This will often depend on the specific learning outcomes that need to be achieved. Hence, the notion of "fluidity" is derived from the freedom and flexibility educators have to move between and and within spheres to craft and construct a hybrid learning experience with the components that make it truly relevant to the specific learner group.

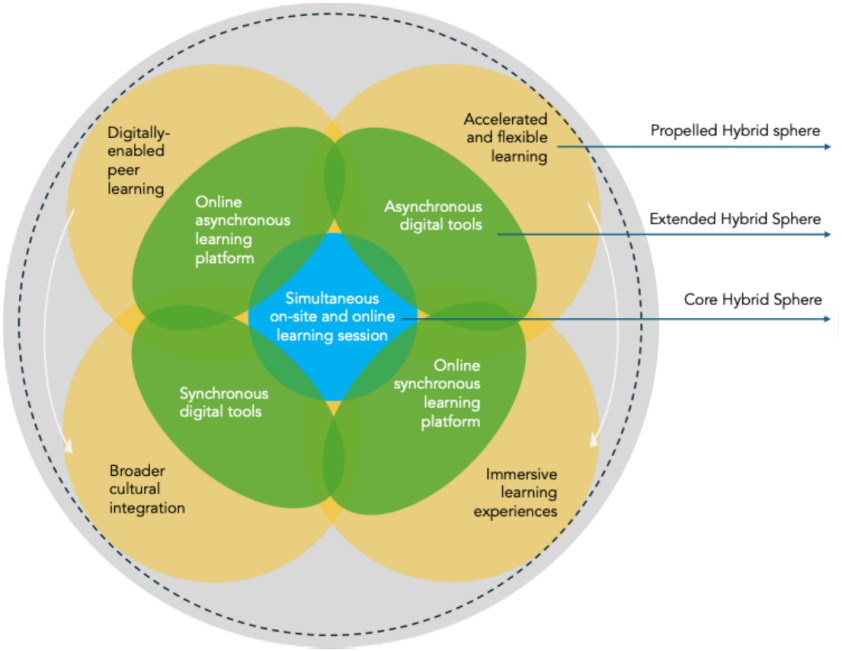

Figure 1: Fluid Hybrid Learning Spheres Framework
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Core Hybrid Sphere

This section focusses specifically on the Core Hybrid Sphere as highlighted in blue in Figure 2 below.

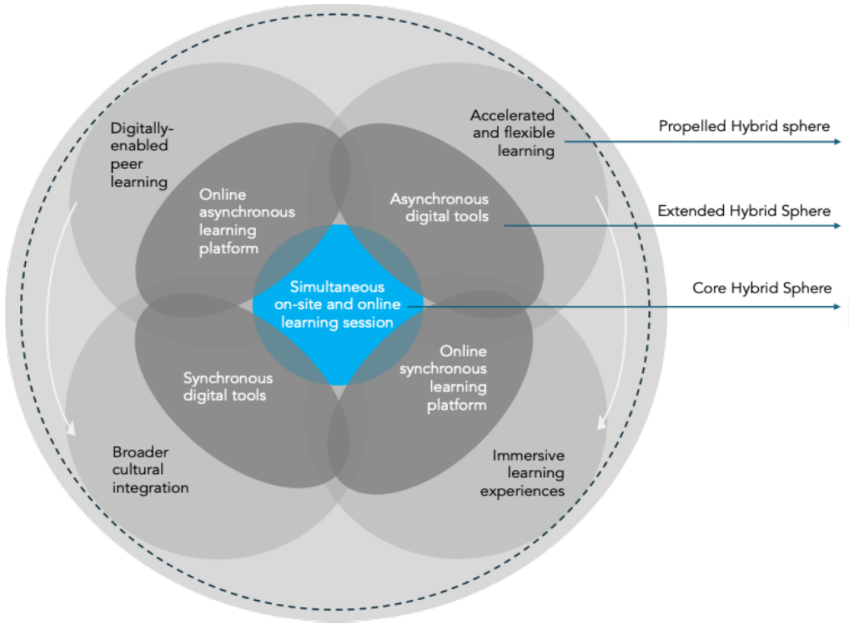

Figure 2: Core Hybrid Sphere
© Rikke Duus & Mike Cooray 2024. Licensed under CC BY-NC-ND.

[6] Schiano, B. (2021). Making the Most of the Hybrid Classroom. Harvard Business Publishing Education. Available online: https://hbsp.harvard.edu/inspiring-minds/making-the-most-of-the-hybrid-classroom.

Integrating in-person learners and online learners

In the Core Hybrid Sphere, the focus is on creating a shared learning space between learners who are physically present on-site and those learners who are joining the learning session via an online mode. There are two main approaches to this. The first approach is for the educator to be physically present in the classroom together with the in-person students with online learners joining the classroom through video conference, e.g. Zoom/Microsoft Teams. The second approach is for the educator to be online with the online students and with students attending the session on-site in a room that has the digital infrastructure (e.g. screens) to connect to the session online. Either way, the common objective is to create a learning space which does not have physical or virtual boundaries and where students can interact, discuss, collaborate and participate in activities no matter where they are located and their attendance mode[6].

An example of a hybrid learning space is the Edulab at KU Leuven University. Here the learning space has been created to accommodate online and in-person attendance with the educator on-site. The room has multiple custom-fitted screens in the classroom where each online learner can easily be seen by the learners attending in-person as well as the educator (Figure 3) and with rich opportunities for engagement for the online learners, who can see the teaching material used, can interact via chat and have multiple views of in-class learners (Figure 4).[7]

Figure 3: Edulab - the living lab of KU Leuven Campus Kulak Kortrijk
© Raes, Detienne, Windey and Depaepe 2020. Licensed under under CC BY-NC-ND.

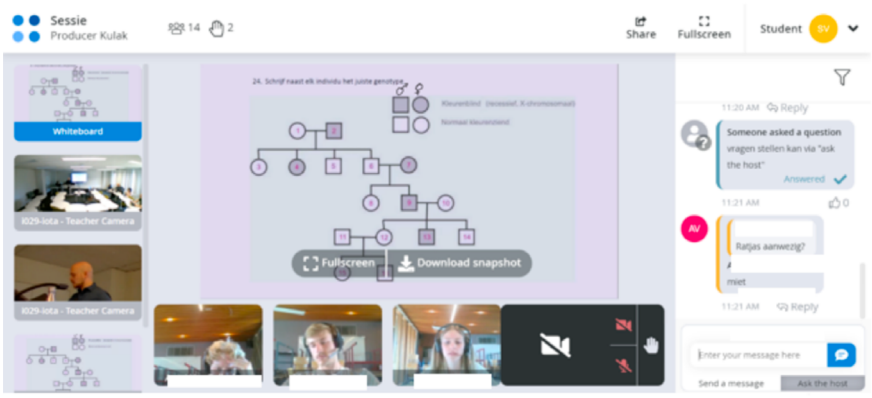

Figure 4: Perspective of the remote student participating in sessions
© Raes, Pieters and Bonte 2019. Licensed under CC BY-NC-ND.

Whilst hybrid sessions can be facilitated by a single educator, it may be advantageous to adopt a team-teaching approach. In practice, this could enable one educator to be online and one educator to be present in the physical classroom. This team-based approach could also be enabled with experienced Teaching Assistants who are able to support the delivery of the hybrid session, either online or in class.

One of the challenges of a hybrid learning set-up is to ensure that students, independent of attendance mode, feel part of a coherent and integrated learning community. This means making efforts to avoid a situation where the in-person students are considered as one learning group, and the online students are considered as another learning group. It is also critical that neither the in-person nor the online students are favoured.[8] Instead, the educational design should be effective in creating, for example, hybrid teams that fluidly blend students together across attendance modes into collaborative, agile and effective teams who can operate across time zones, geographical locations, and cultures. This is especially relevant considering how many organisations today embrace some kind of hybrid working, expecting employees to be capable of working across online and in-person spheres with colleagues and partners across the world[9].

Example: CHARM-EU Master's in Global Challenges for Sustainability

Launched in September 2021, the CHARM-EU Master's Programme in Global Challenges for Sustainability is an accredited and jointly awarded degree programme by the CHARM-EU alliance institutions, including University of Barcelona, Trinity College Dublin, Utrecht University, Eötvös Loránd University and University of Montpellier. The programme uses challenge-based learning, underpinned by a research-driven curriculum and international engagement and focused on driving societal impact.

The programme is designed and delivered to offer rich intercultural experiences and learning between students from the alliance institutions by using flexible, blended and hybrid formats. In practice this means that students attend their lectures in one of the five alliance institutions and then engage with students at the other four institutions online. As mobility is a central pillar of the programme design, students can choose from different mobility options such as switching campus, participating in short mobilities, and taking part in virtual mobility.

Drawing on learnings and insight from the delivery of the Master's Programme, the CHARM-EU alliance institutions are now working on expanding the educational offerings to professional development programmes, transnational online learning, micro-credentials, and a Ph.D. program.

Read more about CHARM-EU:
https://www.charm-eu.eu/masters/globalchallenges
https://www.charm-eu.eu/simultaneous-teaching-and-learning-5-countries-experiences-hybrid-classrooms-charm-eu

Whilst the Core Hybrid Sphere is focused on creating an effective set-up to enable hybrid learning, collaboration and teamwork, this digital and physical infrastructure needs to be extended through the use of relevant digital tools and platforms to effectively blur the lines between online/in-person and create new collaborative learning opportunities.

Extended Hybrid Sphere

The Extended Hybrid Sphere builds on the Core Hybrid Sphere through the use of online synchronous and asynchronous learning management systems (for example Moodle, Canvas, Firefly, or Google Classroom), and synchronous and asynchronous digital tools and platforms (for example Mural, Miro, Mentimeter) (Figure 5). The use of these learning management systems and digital tools all play a part in creating a shared and integrated learning space independent of a student attending a session online or in-person. When used effectively (i.e. to give access to learning content, team collaboration, revision videos, and activities to both online and on-site students) they can extend learners' collaboration across online and in-person modes, deepen their knowledge and understanding of the taught subject, create opportunities for reflection and peer learning, drive real-time discussions and debates, and give learners access to content that can be engaged with according to their individualised learning needs.

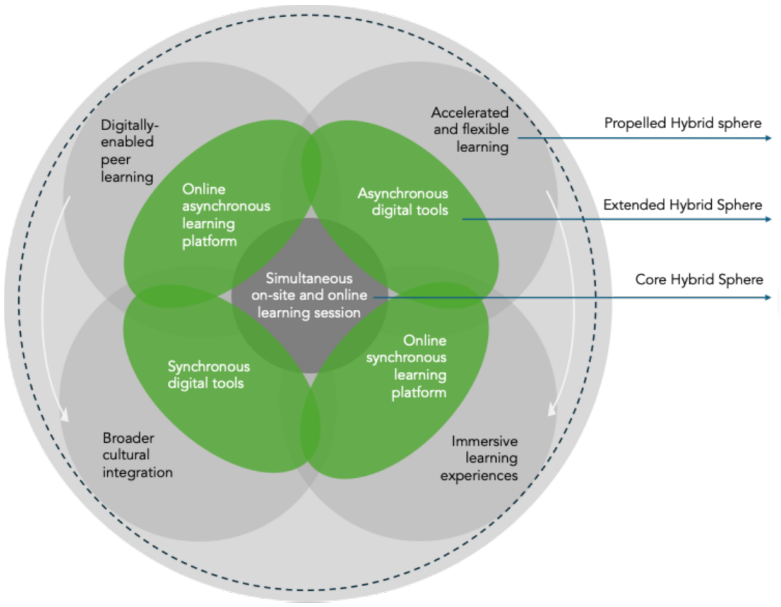

Figure 5: Extended Hybrid Sphere
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Utilising digital tools and the synchronous and asynchronous modes, below is an example of a 3-staged learner journey (Figure 6). Stage 1 uses asynchronous engagement methods; Stage 2 is an on-site session that enables learners to also join online in real-time and make use of synchronous digital tools and platforms; and Stage 3 uses asynchronous engagement methods. At Stage 1, learners access learning content and material in their own time via the Learning Managemet System and have the opportunity to contribute to activities in an online whiteboard set up by the educator. At Stage 2, the access and engagement modes switch to synchronous to enable learners to access specific content and material they need to undertake tasks and activities and participate in discussions with their fellow learners during the in-person session, which is also attended by learners joining online. During Stage 3, learners return to asynchronous engagement, for example by sharing their post-session reflections in the whiteboard and viewing de-brief content from the educator made available through the Learning Management System.

[10] Sedlovskaya, A. (2021). 3 Strategies for Creating Inclusive, Engaged Hybrid Classrooms. Harvard Business Publishing Education. Available online: https://hbsp.harvard.edu/inspiring-minds/3-strategies-for-creating-inclusive-engaged-hybrid-classrooms.

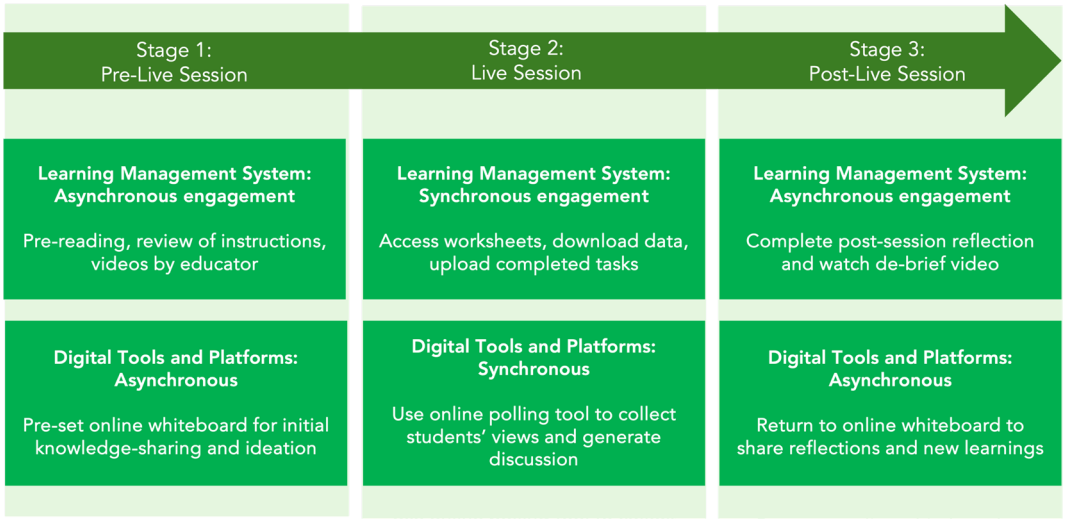

Figure 6: Example Learner Journey
© Rikke Duus & Mike Cooray 2024. Licensed under CC BY-NC-ND.

It is recommended that educators make use of some or all of the four modes (i.e. online asynchronous, online synchronous, asynchronous digital tools and synchronous digital tools) within the Extended Hybrid Sphere and consider how and when they can be best utilised to enhance the learning experience and engagement for learners. Each mode is explained in Table 2 below.

Table 2: Overview of Modes in Extended Hybrid Sphere

Mode	Explanation and Application
Online asynchronous	The online asynchronous learning platform can be a learning management system (for example Moodle, Canvas, Firefly, or Google Classroom) that is used to host teaching material, guided activities, videos created by the educator, discussion forums, quizzes and team spaces for learners. This material is available to students throughout the module/length of the learning session, but may be released to students on an on-going basis by the educator. The key is that these resources are available for students to access in their own time and outside of the live teaching sessions and blur the lines between online and in-person learners.[10]
Online synchronous	The online synchronous learning platform can be a dedicated section within the asynchronous learning platform (for example Moodle, Canvas, Firefly, or Google Classroom), which is specifically set up with content and activities that are utilised during live sessions for students in-person and online to interact with as part of their real-time learning experience. However, it may also be a platform separate to the asynchronous learning platform, for example using Google Drive with pre-set folders or creating a microsite with Wix that contains learning materials and activity worksheets that students access and use as part of the live session.

Asynchronous digital tools	Asynchronous digital tools can be used to facilitate collaboration, interaction and communication between individual students and student teams in-between live learning sessions.[11] For example, the educator can set up team-based whiteboards using platforms including Mural, Miro, Canva and Lucidspark with structured team activities to be undertaken by the team in the interim time between the two live sessions. Outputs can be shared by teams in the live session creating peer learning and output-based discussions. As asynchronous digital tools are accessible to students from anywhere (as long as they have a device and an internet connection) they can act as ideal spaces for collaboration, transcending in-person and online attendance modes. Hence, using asynchronous digital tools can be used advantageously to connect students when working in hybrid teams.
Synchronous digital tools	Synchronous digital tools, for example online polling platforms such as Mentimeter, can be used to create interaction, engagement and discussion during live sessions and links can be made available on the learning management platform for all students to access.

Propelled Hybrid Sphere

When entering into the Propelled Hybrid Sphere, new opportunities are created for exciting learning designs that transcend geographical boundaries, enable flexible learning modes, and ensure learners become equipped with essential and more advanced digital skills. Educators in schools, universities, vocational education and lifelong learning institutions can use the Propelled Hybrid Sphere to meet the needs of individual learners and create experiences that facilitate cross-cultural and scenario-based learning.

The four modes within the Extended Sphere (i.e. online asynchronous, online synchronous, asynchronous digital tools and synchronous digital tools) can be adopted to facilitate, set up and manage all of the four Propelled Hybrid learning options (i.e. immersive learning, broader cultural integration, accelerated and flexible learning, and digitally-enabled peer learning). However, it is also possible to select one Propelled Hybrid Sphere mode and develop this as a particular focus or core strength of a programme, course or learning session (Figure 7).

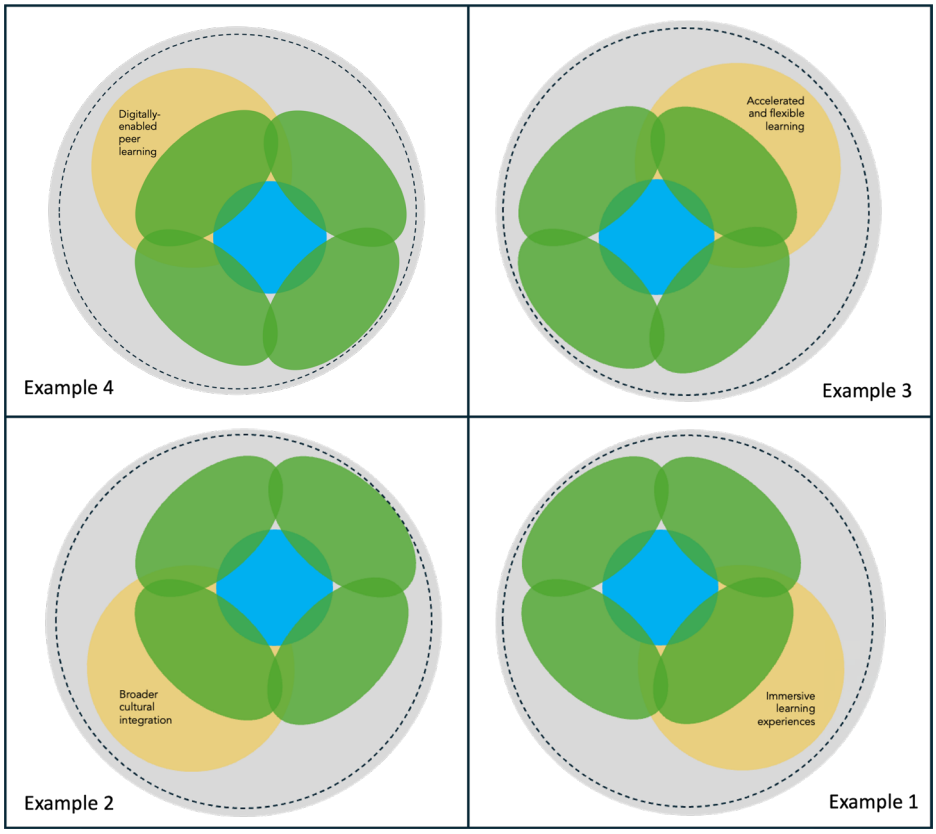

Figure 7: Propelled Hybrid Sphere with Select Focus

Immersive scenario-based learning experiences

Inviting industry guest speakers to the classroom can be incredibly valuable to give learners insight into the world of work. This could include entrepreneurs who share their experiences of setting up and running a business and scientists who share what it is like to conduct experiments and undertake lab work. But what if students could gain real-time access to the inner workings of an organisation, see what goes on with their own eyes, and do so from any location around the world? A hybrid learning set-up, building on the Core and Extended Spheres, can enable educators to 'teleport' students out of their place of study (whether that is in-person in the classroom or from another location joining online) and into new and exciting environments with the use of relatively simple technology. For example, instead of inviting a speaker from a company to come to the classroom, a representative from the company may give a virtual guided tour of the business premises (e.g. factories and outlets) using a smart phone, tablet or a head mounted camera that is connected to a Zoom or Microsoft Teams call in the classroom (which the online students can also join) and displayed on a larger screen in the classroom. Whilst walking through the premises, the representative can explain and share with students how the company operates, show how the company's products are manufactured

and create conversations with other relevant employees of the company, whilst students are immersed in the same environment. These immersive learning experiences can be developed for students at all levels, including primary school, secondary school, university and continuous education.

Figure 8 and 9
© Freepik 2025

Organisations that have business premises that include factories and production facilities may be particularly interesting to collaborate with for this kind of immersive experience. Below is an example of how an immersive experience can be created with a real company based in Sri Lanka. Educators wishing to create similar immersive learning experiences can select companies they have good access to, where there are clear agreements in terms of responsibilities, and where the focus is on letting students experience the organisation 'behind the scenes', gaining insights into the day-to-day operations. To achieve this, it is important to work with organisations that are open and transparent and focus on the learning experience (and do not merely see it as an opportunity to promote the organisation's products and services).

Example 1: Mlesna Tea

Mlesna Tea is a renowned tea export company based in Sri Lanka. Founded in 1983, Mlesna Tea is a medium-sized entrepreneurial family-owned company that exports tea and tea related products to more than 55 countries across the world. The company creates and produces more than 3 500 variants and hundreds of flavours of tea.

Key company representatives, including senior managers, tea tasters and production staff, participate in this immersive learning experience. One of the senior managers, equipped with a smart phone, tablet or a head mounted camera provide students a guided tour of the factory and outlets with students able to see the video feed transmitted in real time on the large screen in the classroom, connected to Zoom/Microsoft Teams, and listening to the insight shared about the tea blending process, tea packing and design, export strategies and market selection, and how to stay relevant in a highly competitive and volatile market.

Questions and comments by students for the company representatives are typed in the chat of Zoom/Microsoft Teams by both in-person and online students for real-time interaction or as part of a Q&A later in the session.

Since Mlesna Tea has multiple locations, including flagship tea retailing outlets, manufacturing and packing factories, and blending and tasting facilities spread across Sri Lanka, using a Propelled Hybrid Learning mode enables students to learn multiple facets of the business on a real-time basis without having to travel to the locations.

Figure 10
© Mlesna (Ceylon) Ltd. 2024. Licensed under CC-BY.

Immersing students in real-world scenarios and situations can enhance their understanding of specific contexts and practices[12]. The Propelled Hybrid Sphere of immersive scenario-based learning is able to facilitate this without requiring a highly advanced or expensive technology set-up. Educators can use this scenario-based learning design to create real-world business challenges and give learners the opportunity to present their ideas back to the company representatives[13].

Broader cultural integration

In the Propelled Hybrid Sphere mode that focusses on broader cultural integration, learners are enabled to interact and collaborate directly with learners based in different parts of the world. The primary focus of this mode is to create international and cross-cultural learning experiences and to develop a global mindset.

[12] Jackson, D. and Dean, B.A. (2023). The contribution of different types of work-integrated learning to graduate employability. Higher Education Research & Development, 42(1), 93-110. https://doi.org/10.1080/07294360.2022.2048638.
[13] World Economic Forum. (2023). Defining Education 4.0: A Taxonomy for the Future of Learning. World Economic Forum. Available online: https://www.weforum.org/publications/defining-education-4-0-a-taxonomy-for-the-future-of-learning/.

Acquiring a global mindset is essential, especially from a young age, as it may help motivate individuals to contribute towards tackling the world's many challenges.[14]

Utilising the hybrid format educators can design and launch competitions, innovation challenges, and hackathons with teams participating from countries across the world. No longer limited by learners needing to be physically present in the same location, cross-cultural teams are formed from across schools or universities based in different countries. The e-Twinning programme, launched in 2005 as part of the European Commission's eLearning Programme and fully integrated into the European Union's Lifelong Learning Programme since 2007, is an example of this mode. The programme continues to enable online collaboration between schools in Europe with a particular focus on collaborative projects, online group discussions, and professional development. Another successful EU initiative is DigiEduHack, which was launched in 2019 as part of the European Commission's Digital Education Action Plan 2021-2027. Each year, teams from schools, universities, non-governmental organisations, innovation centres, research labs and the private sector collaborate through a series of 24-hour hackathons with the objective of creating solutions to digital education challenges. Since 2019, close to 10,000 participants from Europe and beyond have taken part. A final example is the DigitalHack design methodology as explained below.

Example 2: DigitalHack

The DigitalHack is an award-winning collaborative, high-paced and team-based innovation challenge designed and developed by Dr Rikke Duus and Dr Mike Cooray and published by Harvard Business Publishing Education.

The DigitalHack can be delivered in a fully online, hybrid or on-site format. When teams are collaborating as hybrid teams, some team members within the team are together in person in the same physical location, while other members of the team join online from where ever they are located. The educational team designs a dedicated online platform containing asynchronous and synchronous content and provide access to relevant resources, data, insight, video material, activity instructions, and digital tools used to undertake each of the Acceleration Tasks during the DigitalHack day. The education team designs the specific challenge in a relevant area leading to the teams developing new solutions and proposals.

The DigitalHack has been successfully delivered with the University College London MBA in 2022, 2023 and 2024. In 2024, the theme of the DigitalHack was "AI – A Catalyst for Change?". The event brought together senior business leaders, UCL MBA students and alumni, young professionals, and UCL Digital Leads from across 20+ organisations and 15+ countries. The interdisciplinary teams explored and proposed new responsible AI-led solutions for the healthcare, education, media, and urban transformation sectors and presented their new solutions to the DigitalHack cohort. As a pedagogical design, the DigitalHack creates a boundaryless team-based learning environment that engages participants across sectors and levels of experience in cross-cultural teamwork supported by a highly interactive digital environment and set-up.

Read more about the DigitalHack:
https://hbsp.harvard.edu/inspiring-minds/digitalhacks-bring-real-world-challenges-and-high-intensity-collaboration-to-business-education
https://www.mgmt.ucl.ac.uk/news/digitalhack-2024

[14] Unicef (2023). UNICEF Innocenti – Global Office of Research and Foresight, A Tumultuous World Through Children's Eyes: The Changing Childhood Project – A multigenerational, international survey on climate change knowledge, information, trust and identity. Available online: https://www.unicef.org/innocenti/media/3331/file/UNICEF-Innocenti-Changing-Childhood-2023.pdf.

This kind of cross-cultural collaboration enriches students' understanding of local conditions, regulations, practices, political systems, traditions, and lifestyles, which may be very different to what they are used to and familiar with[15].

Accelerated and flexible learning

Educators can create learning programmes at scale that support individual learner needs and have a high level of accessibility, including for learners with special educational needs, caring responsibilities or other requirements. By creating a learning programme that can 'wrap around' the individual through multiple engagement modes, this can also facilitate an accelerated learning path for some who are able to make progress in their own time.[16] Hence, when selecting the accelerated and flexible learning mode within the Propelled Hybrid Sphere, the focus will primarily be on using digital tools and platforms to create learning paths that support the individual learner and ensure higher completion and success rates. Here, it is particularly important to ensure that the digital and AI technology is carefully chosen and integrated well to achieve continued learner engagement[17] and that learning outcomes are met. Examples of digital tools that can be used in this mode are Redmenta, Diffit and Jamworks, which are particularly relevant for school level education. However, it is also important to consider how this mode can be adopted for vocational education, to support adult learners who typically manage full-time jobs and many other commitments make progress towards completing their degree. An example of this is provided below with specific focus on learners undertaking a large and applied 'capstone' project.

Example 3: Applied Strategic Projects

The Applied Strategic Project takes place over a 6-month period with experienced senior leaders as part of the MBA Apprenticeship Programme at the Ashridge campus of Hult International Business School. The project enables participants to undertake empirical research and investigation to explore a relevant strategic business challenge for their organisation towards devising a set of actionable and evidence-based recommendations to the senior management of the organisation.

As participants are busy professionals and senior leaders, the Applied Strategic Project is facilitated online through interactive and practice-based sessions and supported by rich content made available via an asynchronous learning management platform. Throughout the six months of the project, participants also attend live online webinars delivered by the project faculty, which support them to make progress with data collection, analysis, and the critical discussion. These webinars are also recorded and made available asynchronously. During the first phase of the project, participants attend Research Methods and Project Development live sessions via Zoom to develop their research focus, practice various data collection methods, and design their own methodological approach. This leads to the submission of a research project proposal that outlines in detail the objectives of the project, deliverables, methodological approach, specific data collection methods and access, and other practical aspects and considerations. Once the proposal is signed off, this initiates the second phase

[16] Mayer, S., Refaie, R.A. and Uebernickel, F. (2024). The challenges and opportunities of hybrid education with location asynchrony: Implications for education policy. Policy Futures in Education. https://doi.org/10.1177/14782103231224507.

[17] Loderer, K., Pekrun, R. and Lester, J. C. (2020). Beyond cold technology: A systematic review and meta-analysis on emotions in technology-based learning environments. Learning and Instruction. https://doi.org/10.1016/j.learninstruc.2018.08.002

where learners work closely with peers and a dedicated project supervisor over a period of four months to undertake the research and write-up. To support learners with making on-going progress, the project is divided into four submission stages, which also enable supervisors to provide feed-forward. Participants engage with colleagues and other stakeholder groups within and beyond their organisation to collect their empirical insight used to present their original frameworks, processes, policies and other types of output and recommendations. Whilst deadlines are set for the interim submissions, participants can utilise 'Bank Days' to extend their individual deadlines, creating additional flexibility and personalisation of the learner journey.

Learn more about the Applied Strategic Project methodology here:
https://www.globalfocusmagazine.com/how-applied-strategic-projects-can-help-executive-participants-drive-change/

Digitally-enabled peer learning

This digitally-enabled peer learning mode is focussed specifically on using digital tools as a catalyst and enabler for active peer learning[18]. This can be particularly helpful in the hybrid environment when learners are collaborating with each other across online and in-person attendance modes. The objective is to create a shared space that can host teams' work and outputs so that they become visible to the cohort/class of learners. Often, when learners work in teams on projects or tasks, their outputs are not shared beyond the team members, leading to a loss of potential peer learning and peer feedback. In this mode however, educators can set up the tasks and activities for the teams to complete using relevant digital tools so that the work is completed in a digitised format (compared to work done using analogue methods, which is not easily shareable). With the work made available on the shared platform for the cohort/class to easily access, the educator can now set specific peer feedback activities (e.g. focused on strengths and areas of improvement) that also require the receiving team to reflect and respond to the feedback given. The peer feedback and responses can further be made available on the platform, intensifying the opportunities for learners to learn from each other. This approach supports students to develop their digital skills as well as their ability to provide, receive and respond to feedback from their peers, which is critically important for learning, growth and progress[19]. Below is an example of the Digital Peer Learning Hub which can be adopted to achieve digitally-enabled peer learning in practice.

[18] McKay, J. and Sridharan, B. (2024). Student perceptions of collaborative group work (CGW) in higher education. Studies in Higher Education, 49(2), 221-234, DOI: 10.1080/03075079.2023.2227677
[19] Benvenuti, M., Cangelosi, A., Weinberger, A., Mazzoni, E., Benassi, M., Barbaresi, M. and Orsoni, M. (2023). Artificial intelligence and human behavioral development: A perspective on new skills and competences acquisition for the educational context. Computers in Human Behavior, 148, https://doi.org/10.1016/j.chb.2023.107903.

Example 4: Digital Peer Learning Hub

To prepare for the fast-paced world of work, students need to develop digital skills, effective teamwork and critical thinking. To achieve this, educators can utilise the innovative Digital Peer Learning Hub methodology to facilitate students' digital and peer learning competences. The Digital Peer Learning Hub has been used with students at University College London and other higher education institutions for the past 3-4 years.

In practice, the Digital Peer Learning Hub is used to capture and present the activity outputs completed by student teams. The Digital Peer Learning Hub can be created at no or low-cost using website creation platforms such as Wix, WordPress or Canva. The activities that the hybrid student teams undertake (e.g. infographics, app prototypes, social media content, mindmaps, presentations or similar) can be set on a weekly basis and be focused on different aspects of a project they are working on. As long as each activity output is submitted in a digitised format, the submissions can be embedded and/ or uploaded to the Digital Peer Learning Hub. The Digital Peer Learning Hub site is thereby updated after each activity is submitted and made available for all student teams to access. Students can see the outputs of all of their own teams and, importantly, the outputs of all the other teams. If combined with active reflections and peer feedback, this methodology can help students to learn from each other which, in turn, can help them improve their own work. The Digital Peer Learning Hub methodology can be used in secondary schools, with university students and also with adult learners, as active peer learning benefits learners of all ages and levels of experience.

The Digital Peer Learning Hub methodology is published by Harvard Business Publishing Education..

Read more about the Digital Peer Learning Hub methodology here:
https://hbsp.harvard.edu/inspiring-minds/empowering-students-to-learn-from-each-other

Conclusions

The Fluid Hybrid Learning Spheres Framework can be adopted by educators across primary and secondary education, higher education, vocational education, and lifelong and executive learning to support in the design, planning and delivery of effective and exciting hybrid learning sessions, courses and programmes. The framework seeks to highlight that educators can take advantage of the many benefits and opportunities offered by digital technologies in education and use these to create dynamic learner experiences that are personalised, immersive, intercultural, and which bring learners together through active peer learning across online and in-person participation. The framework's three-sphere design also means that educators can work their way from the Core Hybrid Sphere, to the Extended Hybrid Sphere and then to the Propelled Hybrid Sphere or even work backwards from one of the Propelled Hybrid Sphere modes (e.g. immersive and scenario-based learning) and use this focus to align the technology set-up in the Extended and Core Hybrid Spheres to achieve the intended learning experience and outcomes.

With many educational institutions across Europe and beyond creating the necessary technology infrastructure and enabling facilities for hybrid learning, educators have an immense opportunity to take the very best this modality has to offer and create rich, personalised, collaborative, digital and international learning experiences for learners.