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JANUARY 2024

VIRTUAL REALITY

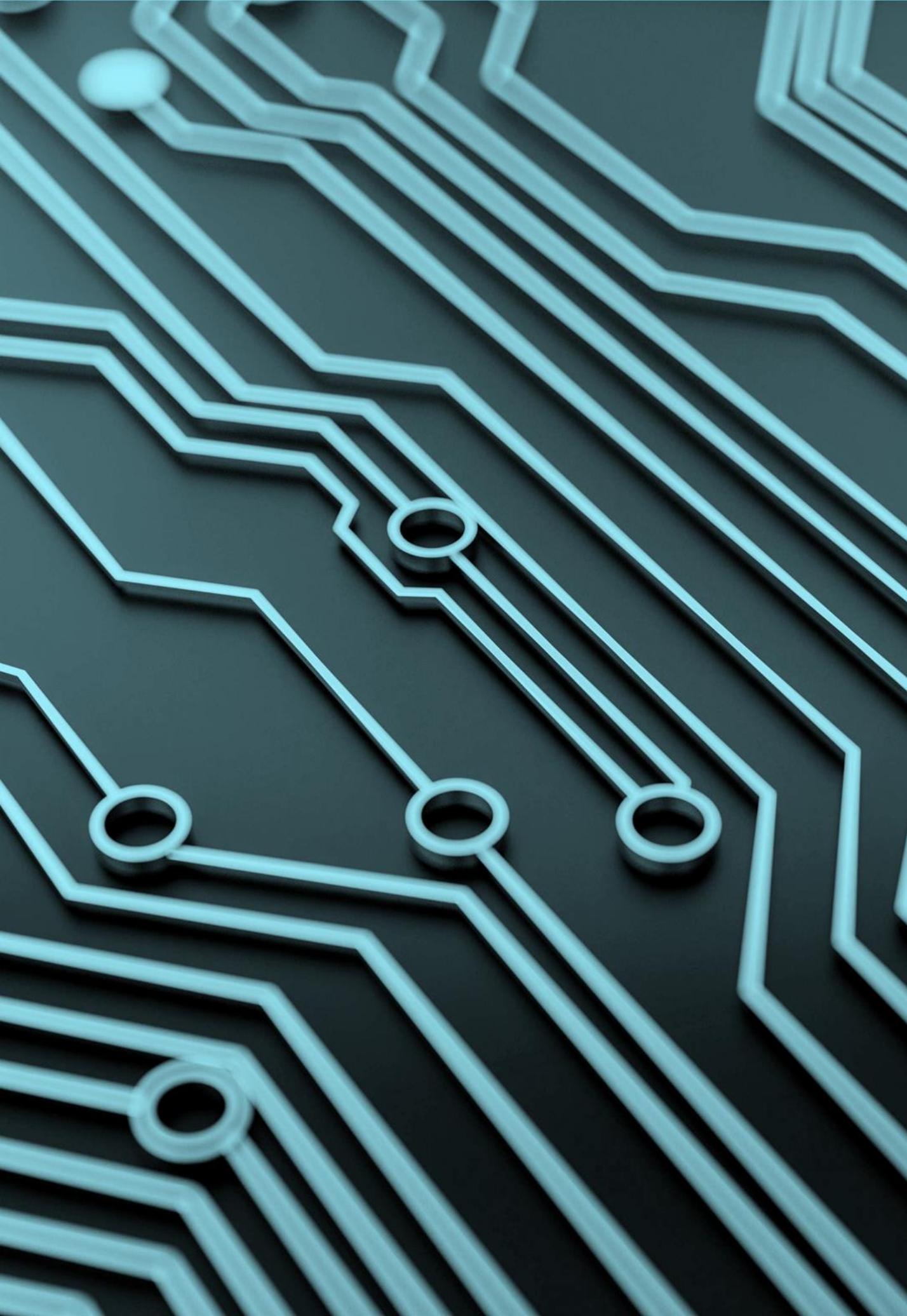


EXPLORING EDTECH



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Welcome to **Exploring EdTech #7**.

We begin our 7th issue with an insightful and practical project by DCU researcher, Hsiaoping Hsu, on how to enable primary students to apply and develop CT concepts through VR content creation. Towards the end of 2023 we had launched an open interview podcast series where we chat with key experts in the educational technology field, in this issue we present an overview of the first 6 interviews, beginning with two formidable educators, Daithí Ó Murchú and Robbie O'Connell, the forward-thinking teachers, who share their valuable perspectives on integrating EdTech into the classroom. We also uncover the expansive reach of EU Code Week, a vibrant initiative that champions coding and digital literacy across Europe.

Next we join Matteo Penzo, the founder and CEO of ZickLearn, a startup revolutionising corporate upskilling through micro-learning and spaced learning methodologies. Matteo shares insights into his journey, the inspiration behind ZickLearn, and the unique features that set it apart in the corporate eLearning market.

Following this, we dive into the world of academia with Dr. Keith Quille, a senior lecturer of computing at the Technological University of Dublin. Dr. Quille talks about his early computer influences, his experiences in computer science, the development of predictive AI models for student success, and the challenges and opportunities presented by emerging technologies like chatGPT in education.

Our final segment features Nicole Bonamici, CEO of Edralon, a game development startup working on their first educational video game "Oneiros." From business student in Italy to entrepreneur in Ireland, Nicole shares insights into the unique intersection of education and gaming.

Join us in this issue of Exploring EdTech as we unravel the stories, innovations, and visions of thought leaders shaping the landscape of education technology.

Please feel free to contact me with any ideas and suggestions for future issues.

Marcus A. Lavery, Editor, January 24th, 2024
editor@exploringedtech.ie



Unlocking Young Minds

Empowering Primary Students' Computational Thinking with Virtual Reality Creation using CoSpaces Edu

Hsiaoping Hsu, - Dublin City University

Unlocking Young Minds

Empowering Primary Students' Computational Thinking with Virtual Reality Creation using CoSpaces Edu

Hsiaoping Hsu, Dublin City University

Introduction

In recognition of the importance of empowering the younger generation with competencies to navigate digital technologies and future uncertainties; promotion of coding education has become a key practice, and Computational Thinking (CT) concepts are critical to a coding education.

The objective of this article is to present a lesson plan idea on how to enable primary students to apply and develop CT concepts through VR content creation using CoSpaces Edu (<https://cospaces.io/edu/>).

The CT concepts involve breaking down complex problems into smaller and more manageable parts, identifying patterns, abstracting concepts, and developing procedures to solve them (Grover & Pea, 2013; Wing, 2006). CT may serve as a vehicle for children to develop essential skills such as critical thinking, problem-solving, collaboration, and creativity (Vahrenhold et al., 2017). Therefore, the integration of CT across the primary curriculum to support children to become digital learners has been strongly recommended (Butler & Leahy, 2022; Department of Education & Skills, 2022).

However, integrating CT into the primary curriculum remains challenging, and several practical issues are still being explored (Fancsali et al., 2022; Wang et al., 2022). For instance, what pedagogical approaches are most effective, and how can we motivate children to engage in CT learning activities? Thus, there is a continued need to explore and develop more pedagogical approaches.

Virtual reality, commonly referred to as VR, is a computer-generated simulation that enables users to experience a three-dimensional (3D) image or a realistic and immersive environment. This is made possible through the use of special electronic hardware such as a head-mounted display or gloves fitted with sensors (Freina & Ott, 2015), which track the user's movements and provide feedback through a variety of sensory inputs including sight, sound, and touch (Kavanagh et al., 2017).

It has been widely suggested that VR has great potential in education, particularly for supporting teaching and learning in primary classrooms (Butler & Leahy, 2022; Department of Education & Skills, 2022). Utilising VR creates a distinctive chance not only to foster CT, but allow students to leverage CT concepts for problem solving in an engaging and interactive environment (Sukirman et al., 2022). For instance, Agbo et al. (2021) involved Nigerian third-level students in a VR learning environment to co design digital games to foster CT concepts.

The results suggested that the students were able to gain a number of CT concepts through the game design process. Another study articulated the experience of creating VR content allows post-primary students to practice CT concepts for solving problems encountered during the project (Raposo & Curasma, 2018). The VR content creation process enables students a number of opportunities to contextually leverage CT concepts in an engaging and interactive way, and it can serve as an effective measure

for CT education. Although applying VR to support the teaching of CT concepts is not a brand-new idea, the pre-existing studies mainly concentrate on post-primary and third-level contexts.

CoSpaces Edu is a web-based tool that permits users to create their own VR content. This platform facilitates the incorporation of user-generated 360-degree images, 3D objects, and coding blocks (similar to Scratch). It is compatible with all modern internet browsers, and has a companion mobile app for Android and iOS devices.

The participation of Carrabane National School in the Virtually Here project with Galway 2020 exemplifies the use of CoSpaces Edu in Irish primary education (Scoil Náisiúnta Seosamh Naofa, 2021). Their 5th class participated in workshops to learn about VR content creation techniques and then used CoSpaces Edu to create virtual scenes around the Dunsandle Castle, aiming to deepen their understanding of the local environment through VR storytelling.

This experience enabled the students to think in three dimensions and come up with fresh narratives in the VR environment. Building upon this success, a concrete example in the form of a customizable lesson plan is provided, showcasing how CoSpaces Edu can effectively teach CT concepts while accommodating the unique needs of different schools.



Lesson Plan

Title: Creating a Local VR Tour to Leverage CT Concepts

Subject Area: Geography Grade Level: 5th - 6th Lesson Length: 10 hours.

The time allocation for each section is as follows:

Two hours dedicated to the introduction section, seven hours allocated to the development section, and one hour designated to the conclusion section.

Overview:

This example lesson plan involves children creating a VR tour for their local community with CoSpaces Edu, starting with an introduction to VR technology and CT concepts and then a project introduction. Children are then divided into mixed-ability

groups to research the local community and select a site for creating a VR tour, learn to take 360-degree photos, record narration, and the CoSpaces Edu techniques. Children then create a draft tour, conduct peer review, compile constructive feedback, and refine their tour, and present it to the class along with sharing their learning outcomes in CT concepts.

Learning outcomes

Define CT concepts (i.e., abstraction, algorithmic thinking, decomposition, debugging and pattern recognition) and explain their application in a project based learning setting. Understand what VR is and its application in education and daily life.

Use CoSpaces Edu to create a local community tour.

Apply and develop geographical investigation skills.

Apply and develop the ability to use maps and pictures.

Explore and appreciate the people and communities who live and work in the locality.

Become aware of the local natural environment and their interrelationship with the lives of people living in these places.

Resources

Cospaces Edu: <https://cospaces.io/edu/>

Google Streetview: <https://www.google.com/streetview/>

Street View Download 360 App: <https://svd360.istreetview.com/>

Google Cardboard-style VR Headsets

Laptops

Smartphones

360 Camera (Optional)

Whiteboard/Projector

Assessment

1. Observe the students as they work through the VR project. Take note of how well they applied and demonstrated CT concepts and geographical investigation skills.

2. Evaluate each group's VR project based on how well they demonstrated understanding and appreciation of the local human and natural environments.

Introduction section:

This introduction section begins by introducing VR and CT concepts, followed by involving children in a VR tour. It then proceeds to explain the project goal of using CoSpaces Edu to create a VR tour representing their local community, emphasising the



application of the CT concepts through the project.

1. VR Introduction: ask children if any of them ever had the opportunity to try out VR before? If so, ask them to share experiences and what they did in the virtual world. Briefly introduce the definition of VR, highlighting its ability to generate virtual environments and emphasising the advantages of leveraging VR for educational endeavours, such as enabling immersive learning experience and enhancing engagement and motivation.
2. Explore VR: organise the children into pairs or groups to embark on a VR tour with CoSpaces Edu (for example, they can visit <https://edu.cospaces.io/QGGQMG>). After the tour, inquire about the students' experiences and ask them to share their feelings.
3. Introduction of CT: inquire whether the children are familiar with the term "computational thinking." If they are, encourage them to provide their own definition. For those who haven't encountered the term, explain that CT refers to a problem-solving approach that involves breaking down complex problems into smaller components, recognizing patterns, abstracting concepts, and developing algorithms or step-by-step instructions to resolve the problem.
4. Project explanation: inquire with the students about what aspects of their local community they would like to showcase if given the opportunity to introduce it to the public. Next, clearly define the goal of the project, which is to create a VR tour using CoSpaces Edu to represent their local community. Describe how the children will have to think computationally to design and implement the tour effectively

Key Questions

1. Are you familiar with VR in any way? If yes, what did you do in the virtual environment? How did you feel?
2. Have you had the chance to experience any VR technologies, such as Google Cardboard or Meta Oculus?
3. Have you ever worked on a project where you presented or introduced a local community site?



1. When it comes to showcasing your local community, what specific elements or aspects would you like to include?
2. Have you ever come across the concept of CT? If yes, how would you define the concept?

Development section:

This development section involves selecting a local community site, planning and designing a VR tour with CT concepts. Students learn to create a VR tour using CoSpaces Edu, adding objects, interactivity, and navigation. They test and iterate by seeking peer feedback and making adjustments, and finally reflect on the tour's quality and the application of CT concepts.

1. Identify the project goal: divide students into mixed-ability groups and ask them to select and research a local community site where they are willing to create a VR tour for. Children will conduct research to gather information about the site's history, flora and fauna, notable landmarks, and any other interesting facts that they wish to include in the tour.
2. Plan and Design: leading students to create a detailed plan and design for their VR tour involving four different CT concepts:
 - Break Down the Task (decomposition): guide students in breaking down the project task into smaller and manageable jobs and write them down onto a paper. Help them identify the key elements required for a successful VR tour, such as taking and uploading 360 photos the CoSpaces Edu, incorporating interactive objects, recording sound effects and narrations, deciding on the number of scenes, the points of interest they will highlight, and designing navigation paths. Emphasise the importance of decomposition and organising the tasks in a logical sequence. They should consider the layout, locations, points of interest, and any interactive elements they want to incorporate.
 - Develop algorithms for each task of their VR tour (algorithmic thinking): lead students to create step-by-step instructions using visual representations for each job identified in the previous step. Emphasise the use of clear and precise instructions to ensure that others can understand and replicate the algorithms.
 - Highlight the pattern design principle (pattern recognition): such as recurring colour schemes, textures, or even thematic patterns related to specific locations or historical periods. Encourage students to think critically about how patterns can enhance the user experience and create a cohesive tour.
 - Simplify the unnecessary details (abstraction): encourage students to think about which details can be simplified or omitted while still conveying the essential aspects
3. Learn to create a VR tour: children learn the necessary technical knowledge and skills to develop a VR tour. This encompasses learning how to utilise tools like Street View Download 360 to extract 360-degree photos from Google Maps, capturing 360-degree photos with a smartphone or 360 camera, uploading 360 degree photos to CoSpaces Edu to create scenes, adding characters, 3D models, videos, sound effects and narration, and programming objects through the block-based coding feature of CoSpaces Edu.



4. Create the tour: it is now the students' turn to utilise CoSpaces Edu to construct their own VR tour, enhancing its realism by adding objects and videos, animating objects with block-based coding for interactivity, incorporating audio elements for immersion, and uploading different 360 photos to enable navigation between scenes and trigger events.
5. Test and Iterate (debugging): once the students have created their VR tour, ask them to share their draft tour with another peer group to gather constructive feedback from their peers. They should make any necessary changes and refine the tour referring to peer feedback. Urge them to make adjustments and refinements based on user feedback.
6. Reflect and Optimise: facilitate a reflection session where students evaluate their VR tours and reflect on the CT concepts they employed throughout the process.

Key Questions

1. What local community site did your group select for creating the VR tour?
2. What specific research did you conduct to gather information about the site's history, flora and fauna, notable landmarks, and interesting facts?
3. How did you incorporate CT concepts into your detailed plan and design for the VR tour?
4. How did you utilise tools like Street View Download 360, smartphone or 360 camera to develop your VR tour?
5. How did you enhance the realism of your VR tour by adding objects, videos, audio elements, and the block-based coding feature of CoSpaces Edu?
6. How did you utilise different 360 photos to enable navigation between scenes and trigger events?
7. What feedback did you receive from another peer group during the sharing of your draft tour?
8. What specific changes did you make to your tour based on the peer feedback?

Conclusion section:

This lesson concludes with students presenting their VR tours and engaging in a summary discussion to recap the key learning points.

1. **Presentation:** give students the opportunity to present their VR tours to the class or even a wider audience. Ask them to explain the CT principles applied in their projects, highlighting the challenges they encountered and how they overcame them.



2. Summary: Summarise the key points of the lesson: applying CT concepts, exploring VR's applications, creating a local tour with CoSpaces Edu, developing geographical investigation and map usage skills, and gaining knowledge and appreciation for the local human and natural environment.

Key Questions

1. Can you identify any specific examples or instances where CT concepts were utilised during the creation of the local tour?
2. How did you simplify complex problems by focusing on the essential details while ignoring irrelevant information?
3. How did you design a sequence of actions or instructions to complete a task for your VR tour?
4. How did you divide tasks among group members?
5. How did you deal with glitches, inconsistencies, or functionality problems?
6. How did you use pattern design principles to create visually appealing and consistent scenes that enhance overall tour quality?
7. What knowledge and appreciation did you gain about the local human environment through this activity?

Conclusion:

This conceptual paper introduces a project-based learning activity centred around VR technology and CT concepts. By applying CT concepts, students utilise CoSpace Edu to create immersive tours of their local community. This activity not only explores the potential of VR but also fosters a deeper understanding and appreciation of their community. The student-created VR tour serves as lasting representations of the students' achievements and hard work. Reflecting on their journey, students can take pride in their ability to leverage CT to design meaningful virtual experiences. This learning activity ignites curiosity, passion for learning, and equips students with valuable skills and mindsets for the future.

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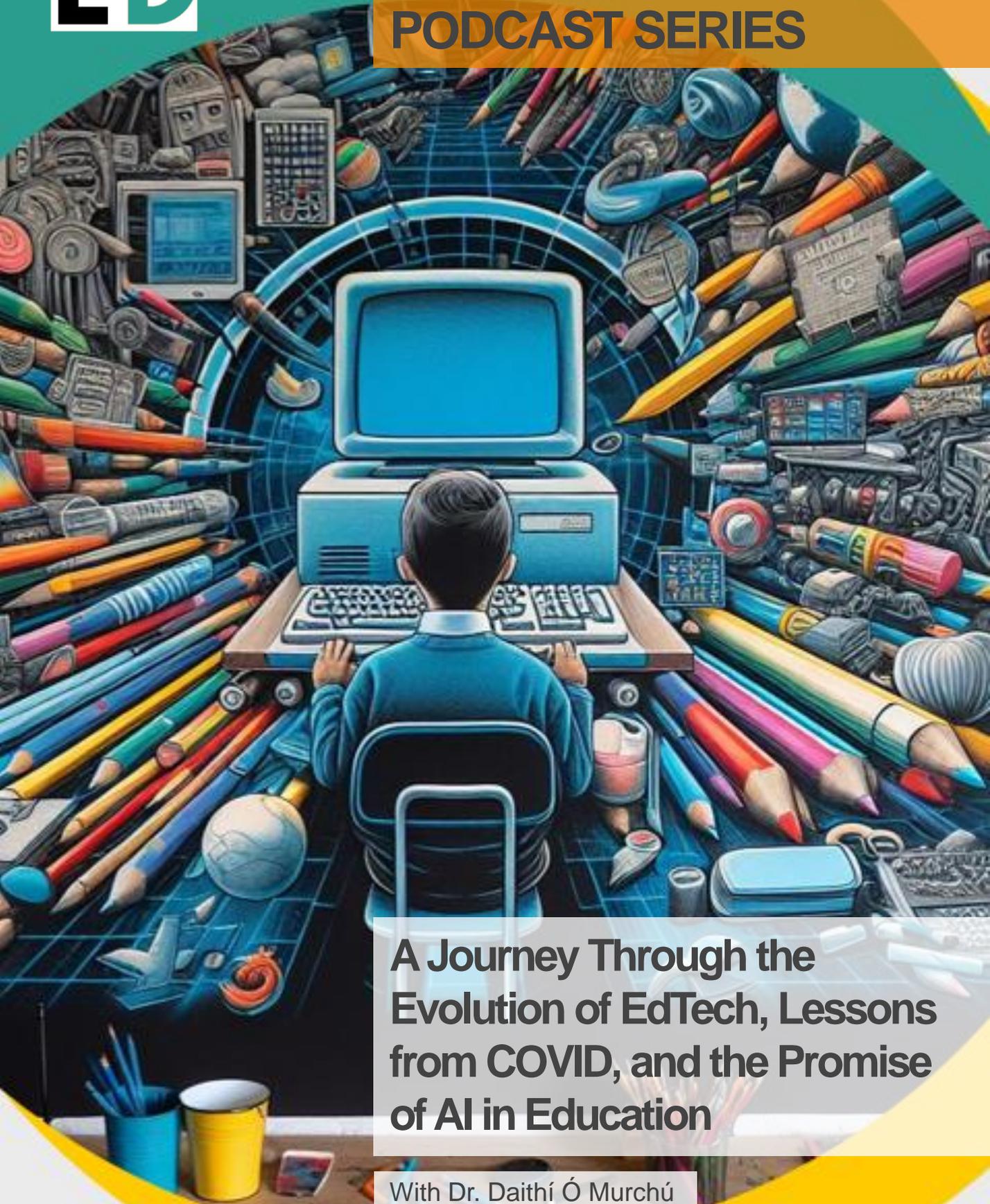
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EXPLORING EDTECH PODCAST SERIES



**A Journey Through the
Evolution of EdTech, Lessons
from COVID, and the Promise
of AI in Education**

With Dr. Daithí Ó Murchú

A Journey Through the Evolution of EdTech, Lessons from COVID, and the Promise of AI in Education

With Dr. Daithí Ó Murchú

In conversation with EdTech Ireland CEO, Tim Lavery, Daithí Ó Murchú, a seasoned educator and international edtech consultant with over 40 years of experience, peels back the layers of his illustrious career and the transformative impact of educational technology. As both educators with a considerable patchwork of tech credentials, Tim and Daithí embark on a reflective journey, exploring the evolution of teaching, the catalysts for change, and the pivotal role technology has played in shaping the present landscape of education.

Daithí's journey begins in an era devoid of modern pedagogical ideologies, where teachers were trained to believe that if you teach, they will learn, and if they don't learn, it's because they can't learn. Over the decades, Daithí's approach evolved from this simplistic view to one rooted in inclusivity and equity. His musings on the privilege of being an educator highlight the transformative power of teaching and the myriad decisions that led him to where he stands today.

The conversation pivots to the technological revolution, marking a shift from chalkboard to coloured markers and paper, to the era of education technology. Daithí reflects on the monumental impact of the computer, which for the first time allowed children to interact and gain a different perspective on learning. Fast forward to the present, with computers a million times more powerful, Daithí marvels at the diverse ways they've empowered students with varying abilities.

The discussion takes a poignant turn as Daithí addresses the seismic shift brought on by the COVID-19 pandemic. He delves into the challenges and lessons learned during this period, emphasising the need for a responsible, ethical use of technology in education. The narrative unfolds as Daithí critiques the current state, where the conversation around technology in schools seems to be reverting, with some countries banning certain technologies that were once hailed as saviours during the pandemic.

Tim and Daithí explore the critical balance between in-class, hybrid, and remote learning, raising questions about the sustainability of technological advancements in education. Daithí's candour shines as he challenges the reluctance to embrace emerging technologies, echoing the sentiment that the children of today, the "next generation EU" and "next generation global," will be the ones shaping the future.

The interview takes an exciting turn as Daithí unveils European projects he's currently involved in, including AI4EDU, ASTRONOMINE, Learning from the Extremes, and SYNAPSES. AI-driven language assistants, game-based learning in astronomy, AI and technologies for rural schools, and teacher academies are showcased as Daithí illustrates how these initiatives are contributing to the advancement of education and learning.

In a closing statement, Daithí and Tim resonate on the essence of EdTech, emphasising that it's not just about gadgets and gizmos; it's about delivering meaningful transformative experiences in education. Daithí O Murchú's journey is more than a career retrospective; it's a testament to the evolving nature of education and the pivotal role EdTech plays in shaping the future of learning.

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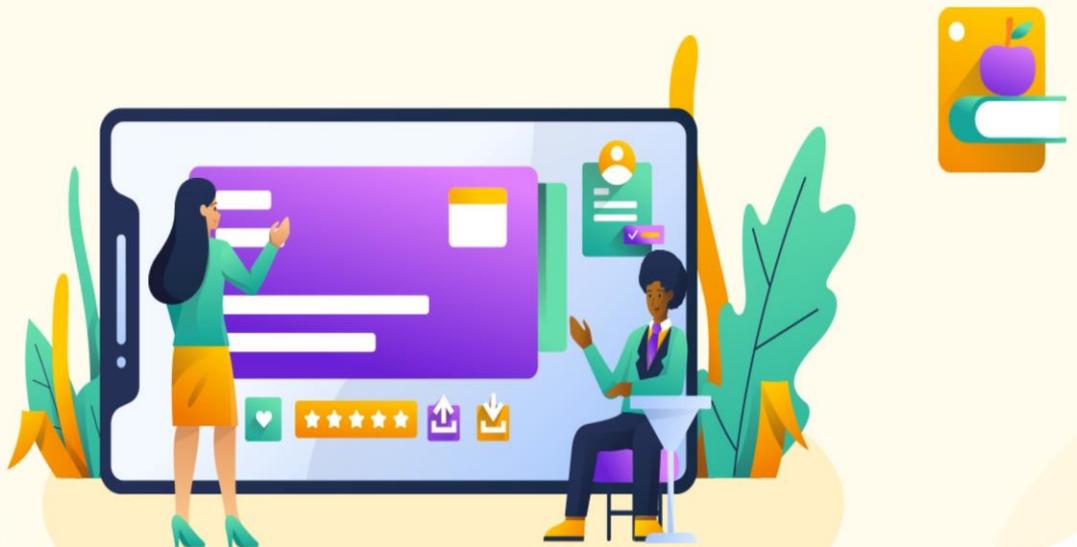
Astronomie: <http://astronomie.erasmusplus.website>

AI4EDU: <https://ai4edu.eu/>

Learning from the Extremes: <https://learningfromtheextremes.eu/>

SYNAPSES: <https://www.dwec.ie/projects-dwec/80-synapses.html>

[Listen to the full interview on our Exploring EdTech Podcast](#)



CONVERSATIONAL AI FOR EDUCATION

AI FOR Teaching And Learning



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Cover Images for all our Articles: AI, Microsoft Designer, Image Creator and editing in Canva: For instance, the Prompt for the cover page of this article: *Create an image that represents the following: The conversation pivots to the technological revolution, marking a shift from chalkboard to coloured markers and paper, to the era of education technology. Daithí reflects on the monumental impact of the computer, which for the first time allowed children to interact and gain a different perspective on learning.*



Tech Odyssey: Navigating the Educational Frontier

*Robbie O'Connell
Principal, St. Brendan's National School*

Tech Odyssey: Navigating the Educational Frontier

Tim Lavery, EdTech Ireland chats with Robbie O'Connell, Principal, St. Brendan's National School

In the hushed corridors of a primary School in the idyllic Blennerville, Southwest Ireland, Robbie O'Connell, a stalwart in the world of education technology, dons multiple hats. As the Principal of St. Brendan's National School, and Manager of the Apple Regional Training Centre, Robbie exudes a genuine passion for teaching and learning, a sentiment that resonates through his role as a fervent EdTech advocate.

Robbie's zeal for lifelong learning became evident in a conversation with Tim. His Hot Chocolate Student of the Week initiative encapsulates the essence of his teaching philosophy, an inspiration for educators seeking a directional beacon in their careers.

In the digital realm, Robbie's insatiable thirst for knowledge unfolds through a myriad of courses and constant exploration of new frontiers. As he delves into a master's program in the leadership of wellbeing and education at Mary Immaculate College, Robbie stands as a testament to the concept of the perpetual learner.

The challenges in integrating educational technology at St. Brendan's unfurl through the lens of 21st-century skills. Robbie acknowledges a reluctance among some teachers in the education system to fully embrace ICT, emphasising the need for patience and persistence in guiding them towards viewing technology not as a threat but as a valuable resource.

Tim's inquiry then ventures into the broader landscape of EdTech's potential. Robbie, ever the optimist, believes we are still on the brink of realising its full impact. Yet, a paradox emerges as he highlights the resurgence of traditional textbooks amid a surge in digital advancements. This, Robbie argues, creates a dichotomy in education's approach to technology, a hesitancy to fully relinquish the analog in favour of the digital.

Returning to the fundamental question, Robbie sheds light on the essential skills teachers should infuse into their classrooms. He emphasises the importance of embracing technology as a tool, integrating it seamlessly into pedagogical practices. Practical applications, from digital spellings programs to using interactive whiteboards for engaging lessons, underscore Robbie's belief in the transformative power of EdTech.

The conversation takes a captivating turn towards Robbie's role as a consultant with ZEEKO, an Irish EdTech company focused on internet safety. Amid the pandemic, ZEEKO collaborated with Robbie to provide crucial guidance on Zoom protocols and internet safety. The consultancy extended to programs like "Magical Leaders," emphasising 21st-century skills, a partnership that mirrors Robbie 's affinity for progressive educational approaches.

In exploring hardware and software, Robbie unravels the complexities of managing iPad deployments in schools. He touches upon the indispensable role of systems like Jamf and the necessity for a holistic, school-wide approach to technology integration. His praise for the Aladdin system for school management showcases his appreciation for streamlined and efficient tools that simplify administrative tasks.

As an advocate for Apple products, Robbie elucidates the effectiveness of iPads in the classroom, citing examples like Book Creator for digital book projects and spellings programs tailored to individual students. The conversation delves into the broader challenges of hardware and software rollout, highlighting the need for systematic planning and support for teachers navigating the intricate landscape of educational technology.



BOOK CREATOR



SCHOOL



In conclusion, Robbie 's insights paint a vivid picture of the evolving educational technology landscape in Primary Education. His unwavering commitment to lifelong learning, coupled with a pragmatic and strategic approach to EdTech integration, positions Robbie O'Connell as a luminary in the realm of educational leadership and technology.

[Listen to the full interview on our Exploring EdTech Podcast](#)



Code Week

A Conversation with Eugenia Casariego Artola
European Schoolnet

Code Week

A Conversation with Eugenia Casariego Artola European Schoolnet

Code Week, an annual grassroots European initiative, aims to promote coding and digital skills in a fun and engaging way. It was launched in 2013 by the Young Advisors for the Digital Agenda Europe, an advisory group of former EU Commissioner for the Digital Agenda; Neeli Krus. Since then, it has grown into the biggest coding initiative in Europe, especially popular in schools. Code Week, supported by the European Commission as part of its strategy to promote digital skills and competences, kickstarts every October; with activities ranging from online workshops to live coding sessions, hackathons, robotics challenges and more.

Anyone can organise or take part in an activity, just pick a topic and a target audience and add your activity to the map on the CodeWeek website or browse for public activities in your area. You can also find teaching resources, training materials and toolkits to help you get started or spread the word about Code Week.

Exploring EdTech met up with Eugenia Casariego Artola, Development & Advocacy Coordinator at the European Schoolnet, which coordinates EU CodeWeek to find out more.

In the heart of Brussels, the pulse of European Code Week beats steadily, connecting students, teachers, and enthusiasts across borders. Eugenia Casariego Artola, a luminary from the European Schoolnet and coordinator of Code Week, paints a vibrant picture of this dynamic initiative. In a conversation with Exploring EdTech, Eugenia shares insights into her background, the essence of Code Week, and its evolution into a global force shaping digital literacy.

Eugenia's Journey: From Spain to Brussels, Pioneering EdTech in Europe

As the conversation unfolds, Eugenia provides a glimpse into her roots in Spain, now firmly planted in the bustling educational landscape of Brussels. Armed with a background in education management, her trajectory intertwined with Code Week three years ago. With a personal affinity for coding and technology, Eugenia found a perfect intersection in Code Week—a project resonating with her passion for preparing students for a tech-centric future.

The Code Week Philosophy: Beyond Programming, Embracing Possibilities

Tim delves into the heart of Code Week's mission, probing Eugenia on the impact of coding and digital skills on students. The response transcends the conventional notion of turning every student into a programmer. Eugenia emphasises the broader goal—equipping students with an understanding of the diverse possibilities technology and coding offer. Code Week, she stresses, encompasses various approaches, from robotics to AI, fostering a holistic digital literacy.

The Tapestry of Code Week: A Network of Visionaries

Navigating the intricate organisational structure of Code Week, Eugenia unravels the intricate tapestry woven by Edu Coordinators, Ambassadors, and Leading Teachers. Volunteers form the backbone, bringing vibrancy and diversity to this global movement. Edu Coordinators, entrenched in ministries of education, support the initiative nationally. Ambassadors act as liaisons, bridging the private and public sectors, while Leading Teachers, the linchpin, disseminate coding education in classrooms across Europe.

From Novice to Enthusiast: A School's Journey into Code Week

Tim probes the practicality of schools venturing into Code Week for the first time. Eugenia advises a visit to the Code Week website, a treasure trove of resources, coupled with social media engagement and map tracking to stay abreast of activities. The conversation unfolds like a New Yorker narrative, subtly guiding schools into the vibrant world of Code Week.

Success Stories Unveiled: Illuminating the Impact of Code Week

The dialogue takes an inspiring turn as Eugenia unravels success stories that illuminate the transformative power of Code Week. These narratives, found in the CodeWeek blog, offer a beacon of inspiration for schools and teachers seeking innovative ideas. Eugenia cites an example from Hungary, showcasing the ingenious combination of coding with cross-curricular themes in a thematic week.

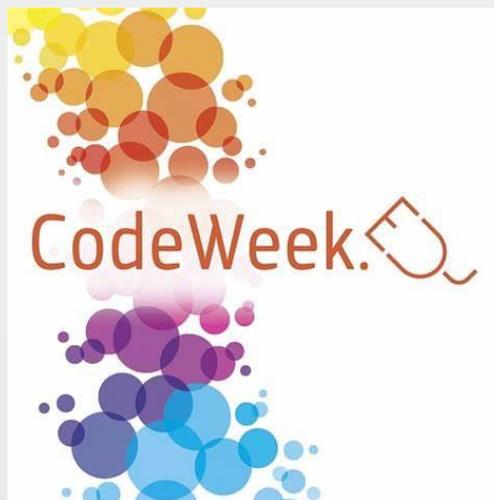
The Global Footprint: Europe and Beyond

Tim delves into the geographical scope of Code Week, unravelling its expansion beyond the European Union. Eugenia highlights partnerships with initiatives in Tunisia and contacts in the United States, while underscoring Code Week's primary focus on Europe and the Western Balkans. Yet, the inclusivity of online courses welcomes participants from around the globe.

The Evolutionary Symphony of Code Week

Eugenia traces the evolution of Code Week over its 11-year journey, a steady crescendo reaching its pinnacle in 2020 with 4.2 million participants. The initiative, now stabilised at 3 to 4 million participants annually, remains dynamic, reflecting

changes in the most active countries. Eugenia emphasises Code Week's commitment to evolution rather than exponential growth. Harmony with EdTech: Code Week's Dance with Technology Providers



In a harmonious dance with EdTech, Code Week collaborates closely with partner organisations and technology companies. Eugenia unveils partnerships with Lenovo, Apple, Google, and others, facilitating training courses and rewarding Leading Teachers. This symbiotic relationship fuels Code Week's mission to advance digital literacy in collaboration with the EdTech community.

The Hackathon Pulse: Unveiling Local Ingenuity

Eugenia sheds light on the hackathon concept introduced in 2021, witnessing significant growth in its second iteration. The hackathons, an ode to local ingenuity, provide a direct link to the EdTech sector at grassroots levels. Eugenia's excitement emanates as she anticipates Teach Day, the culmination of hackathons, where innovative student projects will take centre stage.

As the conversation wraps up, Eugenia echoes a timeless invitation: every week is Code Week, reinforcing the notion that it's never too late to join this transformative journey. In the mosaic of Code Week, where coding meets creativity, every keystroke contributes to decoding a future where digital literacy knows no bounds.

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A photograph of three business professionals in a modern office setting. In the foreground, a woman with long brown hair, wearing a white blouse and a dark grey blazer, is looking down at a smartphone she is holding in her right hand. In the background, two men are walking away from the camera. The man on the left has red hair and glasses, wearing a blue button-down shirt. The man on the right has a beard and is wearing a blue blazer over a white t-shirt. They are all in a well-lit office with large windows in the background.

Revolutionising Corporate Learning

Matteo Penzo, CEO/Founder, ZickLearn

Revolutionising Corporate Learning

Matteo Penzo, CEO/Founder, ZickLearn

In the fast-paced realm of EdTech, innovation often springs from the minds of individuals who have experienced the gaps in existing systems firsthand. Matteo Penzo, the visionary CEO and founder of ZickLearn, shares his journey and insights into transforming the landscape of corporate learning.

A Tech Maven's Leap into EdTech

Matteo's initiation into the world of EdTech stems from a decade-long stint leading technology teams at a global product design and strategy firm. However, he confesses to an unconventional approach to corporate training: for ten years, he abstained from completing a single training course, deeming them lengthy and distracting from core responsibilities. Upon departing from the firm, the desire to revolutionise corporate learning birthed ZickLearn.

ZickLearn's Unique Approach: Microlearning and Beyond

In a conversation that unfolds like a symphony of innovative ideas, Matteo delves into ZickLearn's distinctive features. Addressing the high failure rates of standard eLearning (ranging from 80 to 95 percent), Matteo introduces the concept of a "skip factory." ZickLearn, however, offers a paradigm shift by making training seamlessly adaptable to individuals' lifestyles.

Text-based micro-lessons, distributed via familiar chat clients like WhatsApp and Microsoft Teams, redefine the learning experience. These micro-lessons, taking only about a minute and a half to complete, fit into the interstices of daily life. It's a departure from the traditional model where learners mould their routines to accommodate training; instead, the learning moment adjusts to the learner.

ZickLearn: The Engine Behind Learning Transformation

Matteo unveils ZickLearn as more than just a learning platform; it's a technological powerhouse. Collaborating with the learning science department of UC Berkeley, ZickLearn embeds research-based learning rules into its platform. As the engine behind learning transformation, ZickLearn assists clients in producing or reshaping content, ensuring a holistic approach to effective learning.

Global Aspirations: A Strategic Stance

Matteo's vision for ZickLearn extends globally. While the U.S. market is on the horizon, ZickLearn's current focus lies in Ireland, the UK, and South Africa. Matteo believes in thinking globally from the outset, positioning ZickLearn strategically within English-speaking countries in their time zone.

ZickLearn's Next Act: European Expansion and Funding

As Matteo discusses ZickLearn's imminent expansion into German and French markets, he also unveils plans for the next funding round. Having successfully navigated a Pre-Seed round, ZickLearn aims to use Seed funding to implement groundbreaking changes and support both learning designers and learners.

Navigating the Entrepreneurial Landscape: Insights from Matteo

Closing the conversation, Matteo shares invaluable advice for aspiring European EdTech entrepreneurs. Firstly, he emphasises the importance of thinking globally, both in terms of team composition and market strategy. Drawing from his own experience, he encourages entrepreneurs to be open to unconventional decisions, such as establishing a product team in unexpected places, like Ukraine, a post war decision, which resulted in all of ZickLearn's engineers, quality assurance analysts and the entire technical team, literally lives in a war zone, a risky choice but definitely one of the best strategic decisions Matteo believes he has taken in his life. Lastly, he underscores the significance of passion, believing that markets may fluctuate, but unwavering passion sustains and propels ventures through challenging times.

Matteo leaves us with a glimpse into ZickLearn's future and a promise of continued exploration into the evolving landscape of EdTech. As ZickLearn paves the way for a new era of corporate learning, Matteo Penzo stands at the helm, navigating the seas of innovation with unwavering passion and a commitment to reshaping how we approach education.

[Listen to the full interview on our Exploring EdTech Podcast](#)

The screenshot displays the ZickLearn dashboard interface. At the top, there is a navigation bar with links for HOME, CREATE A COURSE, LEARNERS, and INSIGHTS, alongside the ZickLearn logo and user settings. The main content area is divided into several sections:

- Welcome back Lisa:** A personalized greeting with a profile picture and a motivational message: "Are you ready to impact the way your colleagues approach, memorize and maintain new know-how, and increase the completion rate of your trainings."
- YOUR STATS:** A section showing performance metrics for the current week:
 - COURSES COMPLETION RATE:** 92% (Very good! 🍌)
 - ACTIVE LEARNERS:** 345 (Great, you're over 70%! 🚀)
 - TOTAL COURSES:** 27 (You're a good content provider 🍌)
- Classroom:** A dropdown menu set to "My default classroom" with an option to "+ ADD A CLASSROOM".
- COURSE CREATION:** A large dashed box with a "+" icon and the text "CREATE NEW COURSE".
- DELIVERED COURSE:** "Micro Learning" by Alex B., created on 05-10-2021 and delivered on 05-11-2021. Metrics: DELIVERY 92%, COMPLETION 87%, INTERACTION 92%. Includes "VIEW REPORT" and "EDIT" options.
- DRAFT COURSE:** "Covid 19 safety guide" by Alex B., created on 05-10-2021 and last edited on 05-11-2021. Progress: 70%. Includes "EDIT" option.
- PAUSED COURSE:** "IT Management 1" by Alex B., created on 05-10-2021 and delivered on 05-11-2021. Metrics: DELIVERY 92%, COMPLETION 87%, INTERACTION 92%. Includes "VIEW REPORT" option.
- SCHEDULED COURSE:** "Investments policy" by Alex B., created on 05-10-2021 and scheduled on 05-11-2021. Metrics: DELIVERY 0%, COMPLETION 0%, INTERACTION 0%. Includes "VIEW REPORT" option.



Coded Conversations

*With Dr Keith Quille
Technological University of Dublin*

Coded Conversations

Dr Keith Quille, Technological University of Dublin

With Computer Science recently added to the Irish Leaving Certificate examination, Exploring EdTech caught up with Dr Keith Quille of the Technological University of Dublin to discuss his journey in Computer Science from a Commodore 64 gamer in the 90's to senior lecturer in Computing.

In the bustling technological hub of Dublin, at the Technological University of Dublin (TUD), a senior lecturer of computing, Dr. Keith Quille, takes centre stage in a conversation that traverses his journey, passions, and the evolving landscape of computer science education.

The interview commences with a glimpse into Dr. Quille's multifaceted role as a Senior Lecturer at TUD and the Program Coordinator for the AI and Machine Learning degree program. It's clear that his affinity for computers started early, from the era of the home computer and forays into programming

Dr. Quille's narrative detours from aviation aspirations to a pivotal university phase where programming became his forte. Unexpectedly drawn to teaching during a physics and computer science double degree, he embraced the art of guiding aspiring minds through the intricacies of coding.

The nostalgia for the Commodore 64 surfaces as a symbol of early computing endeavours. As the conversation weaves through the limitations of that era, it illuminates the uphill journey of programming pioneers, laying the foundations for today's digital marvels.

A pivotal moment emerges as Dr. Quille unveils his groundbreaking AI research that forecasts student success in computer science courses. The study, spanning over two decades, proves to be a beacon of predictive accuracy, garnering many citations and evolving into a global experiment.

Dr. Quille transitions from secondary school teaching to a Ph.D., with his wife's encouragement echoing in the background. The narrative meanders through his instrumental role in shaping Leaving Certificate Computer Science, a subject now beginning to flourish in Irish schools.

The interview delves into Dr. Quille's role at CSInc, a team contributing to the transformation of computer science education in Ireland. Their tireless efforts, beyond their regular jobs, underscore a passion that transcends the ordinary, promising a revolution in teaching methodologies. This team is reshaping the



landscape of computing education in Ireland, creating resources, conducting research, and fostering an unparalleled sense of camaraderie.

The conversation shifts to the emergence of ChatGPT and the transformative impact of AI in education. Dr. Quille, while acknowledging its prowess, warns against over-caution, overenthusiasm and underscores the importance of maintaining a balance between traditional teaching and technological tools.

In a parting note, Dr. Quille offers guidance to those venturing into the world of coding. His advice emphasises the importance of tailored resources, highlighting the potential pitfalls of unsuitable learning materials. A beacon for both educators and learners, his insights serve as a compass in the dynamic field of computer science.

As the curtain descends on the interview, Dr. Keith Quille's narrative echoes in the corridors of education, resonating with the symphony of past experiences, present endeavours, and the unwritten notes of the future. In this ever-evolving landscape, Dr. Quille stands as a maestro, orchestrating the melodies of computer science education.

[Listen to the full interview on our Exploring EdTech Podcast](#)



**Unveiling the Dreamscape:
A Dive into Edralon's
Edutainment Odyssey**

Nicole Bonamici, CEO/Founder of Edralon

ONEIROS

Unveiling the Dreamscape: A Dive into Edralon's Edutainment Odyssey

A short conversation with Nicole Bonamici, CEO/Founder of Edralon

Nicole Bonamici, the young powerhouse behind game development startup, Edralon discusses her background, aims, ambitions, and the development of its first educational game, Oneiros.

In the enchanting world of educational technology, Exploring EdTech Magazine brings forth a lightning-fast conversation with Nicole Bonamici, the visionary founder and CEO of Edralon. This Italian entrepreneur embarked on an unexpected journey, weaving dreams into reality, blending education seamlessly with the captivating universe of video games.

From Perugia to Oneiros: A Tale of Transcontinental Innovation

Nicole, with her roots in the picturesque city of Perugia, unfolded her narrative, tracing a path from the heart of Italy to the dynamic startup scene in Ireland. The inception of Edralon, spurred by the desire to infuse education into video games, blossomed into a venture that promises to reshape the learning landscape. The company's flagship creation, named 'Oneiros,' draws inspiration from ancient Greek, signifying the exploration of dreams.

Silicon Valley Sojourn: Lessons in Failure and Resilience

Nicole's stint in Silicon Valley emerges as a pivotal chapter in her journey. The memories of pitching projects to international investors resonate vividly. The experience, akin to scenes from a movie, left an indelible mark, reshaping her perspectives on failure. In Silicon Valley, failure wasn't a setback; it was a steppingstone, a lesson learned on the path to growth and success. Nicole compared this valuable mindset to that of her native Italy, where traditional views on failure are held, her entrepreneurial life underwent a transformative shift as she moved to set-up her Games Development Studio in Ireland.

Edralon's Edutainment Odyssey: Crafting Dreams Pixel by Pixel

Edralon, in its pursuit of creating an educational video game, navigates the intricate and often slow-moving realm of game development. Nicole unveils the timeline, anticipating a launch of the early stage by September 2025, with the final version set to enchant audiences by October 2026. The intricate process demands patience, precision, and a meticulous crafting of every pixel to ensure the game's excellence.

Gaming Perspectives: From Developer to Player

As a game developer, Nicole provides insights into her gaming world. The conversation transcends the boundaries of business, delving into Nicole's personal gaming preferences. The indie game "Baldur's Gate 3," created by Larian Studios, stands out as a recent conquest. This tactical and turn-based role-playing game, akin to Dungeons and Dragons, not only captivates Nicole as a gamer but also serves as a source of inspiration for her work.

Edralon's Ascent: Dreaming of Future Accolades

In a captivating turn, the conversation touches upon the recent accolades received by "Baldur's Gate 3" at the World Games Awards, 2023. Nicole, ever optimistic, expresses the hope of seeing Edralon and "Oneiros" gracing similar stages in the future. The dream of being recognized alongside industry giants fuels the passion behind Edralon's edutainment odyssey.

Nurturing Dreams and Building Worlds

As the dialogue concludes, Nicole Bonamici, the driving force behind Edralon, extends gratitude for the opportunity to share her journey. The reader, now immersed in the world of educational gaming, departs with a sense of anticipation. Edralon, with "Oneiros" on the horizon, stands poised to usher in a new era where education seamlessly merges with the immersive realms of video games, creating an edutainment odyssey worth exploring.

[Listen to the full interview on our Exploring EdTech Podcast](#)





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