# Conference 2016

International Conference on Mobile Technology in

# Practitioner Workshops & Present

# Welcome from the Head of the School of Education, NUI Galway



On behalf of the School of Education I am delighted to welcome all participants and attendees to the Mobile Technology in Teacher Education (MiTE) **Conference this weekend. The School of Education** at NUI Galway is very proud of our achievements to date in leading and supporting the integration of mobile technologies in our initial and continuous teacher education programmes. Enhancing the quality of teaching, both within our own programmes and in schools, through our graduate teachers, is a core mission of the School and this Conference will add considerable knowledge and capacity to our endeavours. In particular, I wish to commend our colleagues, Conference Organisers, Seán Ó Grádaigh and Sinéad Ní Ghuidhir, on the impressive array of speakers, contributors and workshop themes which feature over the two days. **Dr. Mary Fleming** 

#### **Focal ó na Cathaoirligh** Message from the Chairpersons

#### A Chairde,

Fearaimid fíorchaoin fáilte romhaibh go Gaillimh inniu, chuig an Dara Comhdháil Idirnáisiúnta i dteicneolaíocht shoghluaiste in Oideachas Múinteoirí, MiTE 2016!

Mobile Technology has the ability to change how we Teach, Learn & Assess. Students can now learn when, where and how suits them best.

In the past there was a limit to knowledge in the classroom in the form of 'the book', or 'the teacher' who was seen to be the oracle of all knowledge. Mobile Technology in schools has broken that knowledge ceiling and has the ability to democratise education as a result. Students and teachers now have the tools which facilitate self-directed teaching & learning.

Knowledge can now be personalised, localised and tailored individually. It is no longer confined to the limits of 'the book'. Teacher education can play a central role in the integration of mobile technology within teaching and learning in the classroom.

This conference will celebrate the possibilities and explore the challenges of integrating mobile technology in ITE and also in the broader field of education, in order to promote best practice by teachers, students, schools and indeed all stakeholders.

We hope you will be inspired by the many and varied speakers this weekend, and that you will leave empowered and enriched by what you have seen and heard.

Bain taitneamh as MiTE 2016! Le gach deá-ghuí,

Seán Ó Grádaigh & Sinéad Ní Ghuidhir Co-Chairs of Mite Conference 2016





"It is inaccurate to assume that because pre-service teachers are tech savvy in their personal lives they will understand how to use technology effectively to support learning without specific training and practice. This expertise does not come through the completion of one educational technology course separate from other methods courses but through the inclusion of experiences with educational technology in all courses modeled by the faculty in teacher preparation programs."



### Conference2016

#### Friday Schedule: January 15th 2016

8:30-8:55	Registration				
9:00- 9:30	Welcome & Official Opening				
9:30 - 9:50	Brendan MacMahon "Washout or Watershed: Evaluating NQTs Use of Mobile Technology for Teaching and Learning during their early Years of Teaching"				
9:50 - 10:10	Kevin Burden/Matthew Kearney/Paul Hopkins "Designing A Teacher Toolkit for the Mobile Learning Age"				
10:10 - 10:30	Dr. Alice Flores/Dr. John Ittelson/Mr. Michael Slade "MyBook + Services - A New Approach to the LMS"				
10:30 - 10:50	Jordan Schugar/Chris Penny "Emergent Research with eReading and Mobile Pedagogies"				
10:50 - 11:20	Coffee				
	Room A	Room B	Room C		
11:20 - 11:40	<b>Eilis Flanagan</b> "Designing Technology-Enhanced Learning to Mobilise and Augment Students' Engagement with English Literature"	Niamh Armstrong & Carl Donert "Connecting Education to the Cloud for Digital Citizenship"	Carol Levin/Pamela Neyman "CalStateTEACH and Distance Learning"		
11:40 - 12:00	<b>Peter Lahiff</b> "Online portfolios A Practical Pedagogy!"	<b>Dr. Rebecca Chirchick &amp; Cassandra Kelley</b> "CalStateTEACH Video Reflections"	Ben Murray/Anna Walshe "Using technology to support innovative, collaborative assessment"		
12:00 - 12:20	<b>Laura McKay and Dr. Georgianna Ravenna</b> Nearpod and the Impact on Progress Monitoring	<b>Janet Gibbs and Dr Amanda Naylor</b> "Making ebooks - a tool for cross-curricular, international collaboration in the field"	<b>Ailís Travers</b> "From Textbooks to iPads: Developing a Holistic Educational Practice in Religious Education"		
12:20 - 12:40	<b>John Toner</b> "Multidimensional lesson plans: How deep is your lesson plan"	<b>Anna O' Donovan/Ian O' Keeffe</b> "SkillTrack!: Enhancing student literacy in 21st century skills"			

#### 1:00 - 2:00 Lunch

	Room A	Room B
2:00 - 2:20	<b>Chun-Yen Chang &amp; Yu-Ta Chien</b> "A practical model to develop pre-service teachers' capability for mobile teaching"	<b>Dr. Connie Etieno Davidson</b> "What Can Meaningful Clinical Supervision in the 21st Century Look Like?"
2:20 - 2:40	<b>Sirkku Lähdesmäki/Päivi Valli</b> "iPad pedagogy in teacher education"	Dr. Connie Etieno Davidson "Gaming Your Practice"
2:40 - 3:00	<b>Helen Caldwell</b> "Mobile technologies as a catalyst for pedagogic innovation within learning communities in teacher education"	Adrian O'Connor/Niall Seery/Donal Canty "Mobile Technology in Initial Technology Teacher Education: A Means of Developing Ubiquitous Learning"
3:00 - 3:20	<b>Donald D. Matthews</b> "Why Teach Animation?"	<b>Dr Stewart Bennett</b> "The use of mobile digital media for teaching and learning on field visits: a case study"
3:20 - 4:00	<b>Oliver McGarr/Adrian McDonagh</b> "Technology use in Irish classrooms: what do school inspection reports reveal and how can we learn from them?"	<b>Dr. Sharon Russell/Dr. Nan Barker/Karen DeVoogd</b> "Using iPads to Facilitate Evaluation in Teacher Preparation"
4:00	Keynote Address Professor Stephen Heppell	

# Conference2016

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#### Saturday Schedule: January 16th 2016

8:30-8:55	Registration			
9:00-9:15	Welcome and Opening Address		MiTE Conference 2016 will be held in	
9:15 - 10:00	Content Creation on an ITE Programme: Seán Ó Grádaigh		<i>The Ardilaun Hotel</i> , Galway, Ireland Friday 15th & Saturday 16th January 2016.	
10:00 - 10:45	Personally, for your heart and mind. Johan Andersson			
10:45 - 11:00	Coffee	2 Day Conference		
	WONKSING BORS OV TRACCI	ars for Teatermars!	Friday January 15th - Academic Platform	
11:00 -12:00	<b>11:00 - 11:30 Joanna Norton</b> How mobile technology facilitates collaborative practice at local, regional and international levels – an insight	11:00 -11:30 Paul Kelly homeschool.ie	Sin En wit proceedings will be published.	
	11:30 - 11:55 Siobhán Ó Sullivan Digital literacies: Finding, selecting and managing online information	11:30 - 11:55 Sinéad Ní Ghuidhir Active Learning and digital peer Assessment	Saturday January 16th - Practitioner Platform	
12:00- 13:00	12:00 - 12:30 Seán Gallagher Creating and making digital resources using mobile devices 12:30 - 12:55 Mark Finlay Problem solving using ICT/Project based learning using ICT - GAFE (Google Apps for Education)	<ul> <li>12:00-12:15 Cormac Cahill</li> <li>Minecraft as a Storytelling Tool</li> <li>12:15 - 12:30 Miriam Walshe</li> <li>Using iTunes U to create ePortfolios.</li> <li>12:30 - 12:45 Donncha Ó Treasaigh</li> <li>Using iTunes U to compile a complete Staff Handbook for Post-Primary</li> </ul>	The Mo cla devices, demonstrations on the affordances of mobile technologies for education.	
13:45	lunch			
C 0 5	13:45 Problem Based Learning using ICT Assessment of and for learning using ICT 14:15 - 14:40 Simon Grehan Maintaining high standards of professional conduct and protecting your professional reputation when using social media'	13:45 - 14:15 Chris Penny iBeacons in the Classroom 14:15 -14:40 Keith Young ICT and Key Skills; Using A Whole-school Approach to Support Students and Teachers	Sime ment for Learning Book Widgets: Workshop	
4105 15 45	14:45 - 15:15 Paul Kelly The Google Classroom 15:15 -15:40 Bea Leiderman ng a Digital Culture	14:45 - 15:15 Laura McKay, Dr. Taquan Stewart and Pamela Neyman iPad Apps Topplopest Glasscoogn - Workshop	Seán Ó Gráda Ghuidhir T <sup>1</sup> 13: 45 - 15:45 Niels Vanspauwen T <sup>1</sup>	
	- Finding Effective Digital Workflows in Education	15:15 - 15:40 Catherine Mangan Using iPads To Develop Eany Literacy Skills		
16:00	Keynote Address			
NNI			See MiTE 2016 Website: www.gratek.ie/mite2016	



#### Jordan Schugar, Chris Penny West Chester University of Pennsylvania

#### **Emergent Research with eReading and Mobile Pedagogies**

Reading on an iPad will not destroy the imaginative capacity of readers, even if the Huffington Post publishes headlines like Sorry eBooks, These 9 Studies Show Why Print is Better (February, 2015). However, emerging research related to eReading confounds common sense and the stereotypes associated with eTexts and eBooks only serve to perpetuate conventions that screen time and eBooks are corrupting the intellectual potential of young, impressionable brains. This session will review the latest research associated with digital reading and include prescriptions for moving forward with deep, critical reading on mobile devices. In short, research focused on digital reading from mobile devices like tablets, phones, and devoted eReaders is still in its infancy. While contemporary reading research can be traced back to the early 1900s, and modern reading research to the 1960s, digital reading research -on or from a computer -- may stretch back just 10 years (Leu, et al). In retrospect, the results of the Nielson Norman F Study (2006), are not that surprising but certainly set the tone for how readers consume digital content by skimming and scanning rather than engaging in deeper reading techniques. Anne Mangen's continued work on comprehension and cognition in print versus digital text, adds to this literature and many of the reasons we may be skeptical to embrace eReading is that we know so little about it. However, all is not lost. Some theorize that students — with training in digital reading strategies — could read at higher levels of comprehension than their counterparts reading on paper (Schugar, Schugar, Penny, 2011). These studies of expert readers reading comprehension of academic texts from

both tablet devices and paper-based mediums revealed that readers who had developed a strong repertoire of reading strategies with paper-based texts did not necessarily employ these same strategies when reading on tablet devices. However when multi-touch and eBooks are written with text features that support and extend comprehension versus those that have just for fun interactions, there is immense potential for transformational reading experiences for young, and struggling readers (Schugar, Smith, & Schugar, 2013). But how do students learn these strategies? And who teaches them? In Amplify: Digital Teaching and Learning in the K-6 Classroom, Muhtaris and Ziemke (Heinemann, 2015) suggest explicit instruction in reading on a device, responding to text in print and digitally and choice of on-screen reading as key factors to growing proficient digital readers. Students' preferences will always lean towards what they're familiar with, and in the case of Wolf's (Harper, 2008) research, yes, students preferred paper based texts. But again, why? At this time, reading researchers who focus on mobile pedagogies, have more questions than answers. But there are hints that the book as we know hasn't died -- it's just evolving. and this presentation will highlight the different types of reading being studied, the methods for their studies, the grade levels associated with these studies and how this emergent research has impacted what we know, and what we don't know.

#### Chun-Yen Chang; Yu-Ta Chien Science Education Center, National Taiwan Normal University

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#### A Practical Model to Develop Pre-service Teachers' Capability for Mobile Teaching

This proposal aims to introduce a practical model to develop preservice teachers' capability for teaching with emerging technologies. Based on the theoretical framework of cognitive apprenticeship, we propose a 4-phase cyclic MAGDAIRE model, abbreviated from Modeled Analysis, Guided Development, Articulated Implementation, and Reflected Evaluation. The MAGDAIRE model has been employed in a local teacher education program since 2010. Three studies have been conducted along with the program to evaluate the effectiveness of MAGDAIRE. The analysis on both quantitative and qualitative data suggests that MAGDAIRE can significantly improve preservice teachers technology competency. Moreover, MAGDAIRE can develop pre-service teachers' technological, pedagogical, and content knowledge; it facilitates pre-service teachers' reexamination of the affordances of technology from the views of subject matter selection, motivation empowerment, information presentation, activity design, and pedagogy transition. Our latest study further indicates that MAGDAIRE can efficiently and effectively help pre-service teachers to produce teaching modules that appropriately leverage mobile devices and apps to support learning. The details of MAGDAIRE model and a synthesis of our empirical studies will be presented at the conference.

#### Oliver McGarr; Adrian McDonagh University of Limerick

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#### Technology Use in Irish Classrooms: What do School Inspection Reports Reveal and How can we Learn from Them?

The debate about the use and justification of ICT including mobile technologies in schools has been replaced by a discourse of inevitability where schools of the future are presented as technology-rich sites of learning. The extent to which school inspection reports challenge or affirm this techno-centric discourse is the focus of this paper. This study examined school inspection reports from a sample of post-primary schools in the Republic of Ireland from September 2013 to June 2014 (n = 75). The research aimed to identify the references made to ICT, and where present, examine what was reported and how its use was evaluated. The research found that, where mentioned, reference to ICT was characterised by a vagueness which gave little indication of how the technology was actually used. Where descriptions of use were provided, they tended to reflect the use of the technology as a presentation aid for the teacher and limited reference to student-centred use was found. The paper discusses the possible reasons for this type of reporting (and the nature of use reported) and examines the implications for future ICT developments including the use of mobile technologies in the post-primary sector.

#### Dr. Rebecca Chirchick & Cassandra Kelley CalStateTEACH Faculty, USA

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#### **CalStateTEACH Video Reflections**

CalStateTEACH is an online, site-supported public university teacher preparation program developed to provide access and equity to candidates placed in diverse underserved rural and urban schools. In 2010, the program launched a one-to-one mobile learning initiative utilizing the revolutionary interface of the iPad and incorporated 21st century knowledge, skills and research in cognition and brain function. Our goal is to prepare creative, collaborative and reflective teachers who understand the important relationships among technology, content, and pedagogy. Research suggests that reflective practice is a vital component in progressing from novice to expert (Adler, 1990; Bauer, 1991; Feiman-Nemser, 2001a; Ferraro, 2000; Schön, 1987; Van Manen, 1999). CalStateTEACH is focused on self-reflection that utilizes video of our candidates' own teaching. In alignment with many teacher credential and licensing agencies, we have adopted the use of digital video processes for performancebased assessments and as an observation tool throughout our program for student-teacher growth and development. Besides implementing iPads for access of e-text, educational applications and other web-based materials, candidates learn how to film their teaching, to edit and trim clips using iMovie and to upload videos within the CalStateTEACH portal for faculty evaluation. This process gives students the opportunity to carefully select and showcase specific moments of their teaching. Additionally, they are able to embed reflective annotations through the Critique<sup>1</sup>t" technology where faculty will also comment and provide feedback directly within specific timestamps or frames of the video. This efficient and user-friendly application facilitates dialogue among students and faculty in a timely and detailed manner. Analysis of videotaped lessons promotes sophisticated levels of reflection while building student-teacher confidence. As candidates effectively capture the interactions happening in the classroom, they are also continuously monitoring their own metacognition and applying strategies to learning challenges they face. In order to improve instructional methods, candidates must first understand what their teaching methods are. When they view and reflect on videos of their own teaching, candidates are able to assume an objective perspective, which allows them to further assess their pedagogical knowledge within personal classroom experiences. This encourages a deeper understanding of the application of theory into practice of teaching. Furthermore, faculty can determine the necessary scaffolding to best support candidates as they move throughout the program. Digital annotations provide faculty with insight about what candidates notice and opportunity for cognitive mentoring through explicit questioning to engage them in deeper levels of reflection. A final advantage of iSupervision is that candidates assume a greater sense of agency in promoting the growth of their teaching practice as the locus of control shifts from faculty to self. Throughout their clinical experiences, candidates also have the ability to compile their teaching clips into a culminating iMovie which can be added to a digital resume, website or electronic portfolio. Overall, innovative programs utilizing iPads and multimedia movie-making technologies such as iMovie, can effectively foster self-reflection and teacher improvement as we equip candidates with 21st century skills for their future careers as educators.

#### Laura McKay and Dr. Georgianna Ravenna CalStateTEACH Faculty, USA

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#### **Nearpod and the Impact on Progress Monitoring**

Progress monitoring is a practice used to determine students' academic performance, measure their degree of improvement, and assess the efficacy of instruction (Center on Response to Intervention). It is the one method of assessment that instructors can promptly give, interpret results, and alter instruction to maintain and promote sufficient improvement of reading skills. Consequently, teachers who consistently implement progressmonitoring instruments improve student achievement and are more apt to modify instruction to meet the needs of their students (Santi & Vaughn, 2007). The purpose of this quasiexperimental study was to determine whether the Nearpod app, an interactive technology application, served as an effective method to monitor students' progress and check for understanding during instruction. The participants consisted of two teacher candidates in their final term of their clinical experience practicum. Both student teachers taught at a Title 1 school in Tustin, California. The school demographics consisted of 49% socioeconomically disadvantaged students and 26.4% English Learners. The experimental group student teacher used Nearpod to check for understanding and perform progress monitoring in a 2/3 combination grade classroom comprised of 31 students. In the control group setting, the other student teacher in a 3rd grade classroom of 32 students and did not use Nearpod for progress monitoring. Instead, she used traditional progress monitoring methods during instruction. The methods used for progress monitoring included think-pair-share, thumbs up/thumbs down, brainstorming maps, and calling on students randomly using name sticks. Data was gathered through

- 1. Pre- and post-videotaped lessons;
- 2. In-person observations of teaching in a classroom setting;
- 3. Printed reports showing data of the frequency of student participation during the lesson and final scores on quizzes;
- 4. Student teacher written reflections of the learning outcomes;
- 5. Conferences with the student teachers.

The results of the study indicated that the use of the Nearpod app (student responder) improved student engagement and whole group assessment in a single lesson. This project is relevant and important to the field of teacher education because it allows candidates to practice how to effectively improve student learning in the classroom. The data showed that the candidate, who utilized the Nearpod app for progress monitoring, developed the skills to obtain accurate information and to determine to what extent the students met lesson objectives. In addition, this candidate referred to the data in written reflections that guided future instruction.

#### Ben Murray; Anna Walshe NCCA

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### Using Technology to Support Innovative, Collaborative Assessment.

Significant changes in society require learners to have a wide, adaptive knowledge base and understanding to enable them to be active participants in the communities in which they live and work. Increasingly, attention to education system performance focuses not only on overall educational performance, but also on the extent to which school systems are serving the needs of diverse learners in a digital world. Recent education reforms aspire to embed key competences in teaching and learning through rich learning outcomes. What is less clear is how existing assessment methods can properly evaluate skills such as critical thinking, problem solving, creativity, communication and collaboration. This paper will describe an initiative, the Collaborative Assessment Alliance (CAA) in which several countries collaborated to design assessments that address the challenge of assessment of 21st century skills. The concept behind the Collaborative Assessment Alliance (CAA) project is to foster a worldwide partnership to develop methods to assess critical thinking, problem solving, creativity, communication and collaboration, and provide resources for implementation in the classroom particularly in the area of the design, creation and deployment of collaborative assessment tasks. Ireland, through the National Council for Curriculum and Assessment (NCCA) is one of the partners in the alliance; 13 schools from around the country are developing digital synchronous collaborative tasks that challenge students to solve problems through collaborating with their partner. The teachers in the 13 schools have explored the research and theories on collaborative assessment, and their implication for classroom and school practice. In designing their tasks, the teachers have considered how the content and the context of the lesson relates to development of skills and how conceptual and metacognitive knowledge is built. They have further considered how the collected assessment data can be evaluated using a framework that identifies the students participation and collaboration in the task on both cognitive and social domains. The skills that are targeted in the tasks align closely with the key skills of junior cycle and senior cycle. The tasks are unique in that they provide a window into how students collaborate, and how they approach collaboration. The professional development that teachers have recieved as a result of participation in the project has encouraged them to consider the role that digital learning has in assessment of not only the cognitive ability of students but also their social and collaborative abilities. Once completed and trialled by the member schools, the assessment tasks will be disseminated amongst teachers and students across the country and exchanged between other members of the CAA. These tasks will also be shared with other local alliances and the combined results from this research will serve to further build local, national and international capacity in thinking about how collaborative task design can become part of global assessment systems.

#### Donald D. Matthews CalstateTEACH - California State University, Monterey Bay

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#### Why Teach Animation?

There are many reasons to include animation into the repertoire of 21st century teachers. Animation is both a motivational strategy that leads to higher levels of engagement and deeper learning and an instructional strategy that facilitates knowledge transfer. What is also very exciting about animation is that it is capable of enhancing attention and promoting self-regulation. Psychologist Richard Wiseman also points out that learning is more memorable with animation because it elevates mood and evokes positive emotions, which increases that access to learning and makes the communication of ideas more effective. (RSA Animate, 2015). A meta-analysis conducted by Hoffler & Leutner, (2007) found an overall positive effect when comparing the use of animation over static pictures. Schnotz & Rasch (2005) connect animation to cognitive processing suggesting that animations can provide additional information that cannot be displayed in pictures by helping learners build mental models making cognitive processing easier. Cognitive effort (Zhang & Norman, 1994) may be reduced with animation through the use of perceptual processes without overburdening cognition. Recent research into how animation with narration can enhance learning by adding narration to animation (Mayer, 2001) which further increases its effectiveness in acquiring new information. Chan and Black (2005) point out those learners need to construct a conceptual understanding of a concept or idea that will promote comprehension and learning. Engagement can be explained through motivation theory. When students are intrinsically motivated they become goal oriented and able to sustain goaloriented behavior, which results in positive learning outcomes and products. Providing the autonomy to make decisions about

what and how one learns can increase motivation. Self Determination Theory (Ryan & Deci, 2000) explains that social and emotional well being is founded on the need for competence, relatedness and autonomy. The ability to succeed is sometimes hindered by environmental factors. When someone is intrinsically motivated to do well the conditions must be right to support the autonomy of the individual and their ability to become engaged, be productive and find happiness in the task. Self regulation is the ability to manage and control ones own actions, to generate and sustain motivation, and to experience autonomy. Autonomy helps to enhance feelings of competence and self regulation contributes to the happiness and success of the individual. All of these conditions are linked to an environment which must support and encourage autonomy leading to greater competence and intrinsic motivation. Teachers who use animation in their classrooms are able to increase autonomy and help students regulate their attention and increase access to learning for all students. Animation is a 21st Century tool that makes learning accessible and exciting for all types of students and teacher candidates. This workshop will provide you with an understanding of the psychological constructs associated with animation and the cognitive strategies that are employed when creating an animation. Participants will engage in hands-on experiences to develop conceptual understandings related to animation.

#### John Toner NUI, Galway

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# Multidimensional Lesson Plans: How Deep is your Lesson Plan?

The common components of lesson plan templates, as utilised in most initial teacher education programmes, have roots in Ralph Tyler's 1949 instructional planning framework. Arguably, however, the art of teaching has evolved greatly in the intervening years and although traditional lesson planning templates have been criticised in the literature, they largely persist in modern teacher education programmes. In this paper, traditional lesson plan templates are briefly examined. The multifaceted nature of modern teaching is then explored in the context of the templates' shortcomings. Finally, the potential use of mobile technology and apps to address these perceived shortcomings is discussed, with a particular focus on the use of multidimensional lesson plan templates.

#### Dr. Connie Etieno Davidson CalstateTEACH, USA

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#### What Can Meaningful Clinical Supervision in the 21st Century Look Like?

Clinical supervision is essential for developing educators. The clinical placement is where pre-service candidates, under the supervision of a site-mentor and a faculty supervisor, put theory into practice. The on-site mentor is a major influence in the candidates' pedagogical development. The concern is that preservice teachers are not acquiring the pedagogical experiences and exposures essential for meeting the demands of the 21stC students. It is not uncommon for the site-mentor to be unfamiliar or uncomfortable with pedagogical and digital literacy practices that are current, culturally relevant, or effective. Of those who do use technology, often is it used in a 20thC industrial paradigm of instruction. CalStateTEACH, an Apple Distinguished Program, continues to be on the cutting edge of teacher preparation and digital integration and application in practice. Two program initiatives were introduced this year, Cognitive Coaching (CC) (Costa and Garmston, 1995) and voice annotation for videoobservations. To what degree does the CC conversations in pre and post observance conferences produce a more reflective candidate? Will voice annotated video and audio annotations encourage the candidate to provide more detailed analysis of their practice? Would access to a series of professional developments on pedagogy and technology presented virtually increase candidate growth and attendance? This session will report on the findings in the initial launch. By sharing these findings, higher education faculty can contribute to the conversation around meaningful 21st Century clinical supervision and offer constructive critiques of the process and the initial findings, and then suggest new directions to strengthen the research.

#### Dr. Connie Etieno Davidson CalstateTEACH, USA

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#### **Gaming Your Practice**

What it means to Game your practice? Dr. Connie Etieno Davidson will introduce what it means to use Game Based Dynamic (GBD) in your classroom. GBD is fundamental to increasing engagement in any learning situation. In this presentation you will learn why GBD is more than video games but rather the 21st century remix of Howard Gardners Multiple Intelligences and John Medinas Brain Rules. Digital Integration becomes much more than word processing and data searches when instruction is wrapped in the GBD.

#### Carol Levin, Pamela Neyman CalStateTEACH at CSULA, USA

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#### **CalStateTEACH and Distance Learning**

CalStateTEACH is an Apple distinguished program recipient. To accommodate teacher candidates in remote or international locations, Distance Learning has become an important component of the success and relevance to education and technology for our program. Each teacher candidate uses a computer with a high speed connection and an Apple iPad. A high speed internet connection facilitates rapid and consistent uploads of lesson plans, work activities and modules, and the ability to upload videotaped lessons to share with faculty. CalStateTEACH teacher candidates also have their required textbooks available to them online through the Pearson App. This way they can readily read and consult their texts for the required readings to complete program activities and lesson planning. Another benefit is the decreased cost of online texts instead of hard copy versions. As an instructor, it is so helpful to have these resources on the iPad for easy reference when visiting a candidate at their school site. Faculty and students can communicate in multiple ways, such as face-time conferencing, email, Discussion Forums on the course website, or by telephone. Face-time conferencing can be utilized in visual and/ or audio modes. It can be done with a group or individually. For out of state and overseas students individual conferencing works best due to time zone differences and students who are in different terms of the credential program. This also works well for students in remote and rural areas of California. Our teacher candidates use their iPads for iMovie Trailers and public service announcements for creative and innovative responses to real world issues. The Discussion Forum facilitates online interaction with students who post their own work and then respond to at

least two others in the online cohort each week. The Discussion Forums have the capacity for teacher candidates to post short videos to share with others within their cohort. This also allows candidates to gain insights into what others are accomplishing within the grade in which they are placed, and in other grade levels as well. Finally, reflection is an ongoing and integral part of lesson planning for teacher candidates. Each required lesson is planned to follow school district curriculum, Common Core Standards, state academic content standards, and the recommendations of the master teacher or site mentor for the candidate. The CalStateTEACH Lesson Plan Assistant is an interactive tool that allows for planning each part of the lesson plan, receiving feedback from the faculty advisor, and then writing a detailed reflection after teaching the lesson. Technology provides opportunities for us as faculty to supply personalized attention to our teacher candidates. They can then be engaged and supported as they pursue their dreams, without location obstacles or deterrents. CalStateTEACH curriculum updates are continuously incorporated into the program to take full advantage of technology innovations.

#### Peter Lahiff Future Learning Ireland

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#### **Online portfolios - A Practical Pedagogy!**

This talk aims to outline a practical pedagogy for the use of online portfolios as a key learning outcome in language teaching and teacher training. The approach described is independent of the platforms used and can be use with a range of learner types. It draws on the practical experience of using online portfolios as a key learning outcome with both adults and teenagers on various widely available platforms. This experience was gained over three years developing a technology enhanced summer language programme and in devising an initial teacher training course in the ESOL sector (English for Speakers of Other Languages. In both cases the use of online portfolios was a significant departure from the usual pedagogy employed in such courses and the approach that was developed had to be sound in theory and workable in practice. This talk will explore the lessons of these three years working at the forefront of language teaching and teacher training, considering the pitfalls and the potential of using online portfolios with the different groups in question.

#### Janet Gibbs and Dr Amanda Naylor University of York, UK

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#### Making ebooks - a Tool for Cross-curricular, International Collaboration in the Field

This paper outlines how making ebooks, using an iPad app, supported collaborative working between English and science pre-service teachers, together with English and science Norwegian high school students, in an authentic situation. The authentic situation was an aquarium in a city in the North of England. The collaboration involved working together in mixed English and science groups to select their chosen topic from a range of topics that related to the science curriculum for 16+ students in Norway and England. They were also tasked with adapting their use of language, for a particular audience. It could be written in the format of their choosing, such as a news item, teaching resource or public debate, for example. Discussion between the Norwegians and the pre-service teachers was paramount, to ensure that the language and terminology used was appropriate for the audience and to ensure all participants were clear about the meaning they wanted to convey. They were able to use the mobile technology to make video, photo and sound clips at the aquarium, which were then edited before being incorporated into their ebooks. The students and pre-service teachers were able to personalize their ebook. The agency of the task involved them working independently and having control of their own learning. By selecting their own topic for research and doing some preparatory work, they could customize the detail of the learning scenario and adapt it as they visited the aquarium. In this way the students became the architects of their own learning in that they researched existing knowledge and by doing so, created their own new knowledge and then put it to purposeful use in the ebook (Fullan and Langworthy (2014). By reviewing the captured data, it enabled the pre-service teachers

to remember more clearly and in detail what they had experienced in the field. This would not have been possible without mobile technology. The process of making the ebooks and the learning involved was more important than the end product.

#### Anna O' Donovan; Ian O' Keeffe Learnovate Centre

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#### SkillTrack!: Enhancing Student Literacy in 21st Century Skills

To date, technology-supported assessment of 21st century (Key) skills has tended to evolve around proprietary approaches that are either based on closed task design and/or platforms that support a singular approach. The challenge is to evolve a technology-supported approach which is more open and scalable. SkillTrack! is a tablet based app designed to promote the practice, development and assessment of 21st century (Key) Skills in an open and scalable fashion that blends with the day to day classroom activities. Throughout class instruction, students use SkillTrack! to indicate or tag instances of when they feel they have used a Key Skill in a class activity; for example, after working on a lab for science, the student might tag collaboration on the app. The app will log the tag and the student will either continue tagging (identifying a presentation for English as creativity or a correct answer in maths as information management) or will be directed to a quick answer question (MCQ - which element of self-management best describes what you were just doing) to support practice, development, selfassessment and student literacy of the Key Skills. Teachers can gain insight into how their students are using the SkillTrack! app through a simple dashboard that allows them to see which skills their students are tagging and how they perceive their abilities in those skills. For learning purposes, the students' use of the app will work to redirect the implicit nature of the Key Skills in to the explicit realm by activating experiential learning moments and providing for constructed self-direction and metacognitive reflection within a scaffolded feedback and self-assessment cycle. The students' use of the app will familiarise students with the language, elements and outcomes of the Key Skills while encouraging personal reflection and growth. Additionally, it

promotes ownership of the Key Skills within the student as they monitor, manage and modify their strengths and weakness and become self-directed continuous learners. The pedagogical frame is based on assessment strategies for self-directed learning and utilizes the conceptual design of manage, monitor and modify in regards to student behaviour around the Key Skills. To support this, the steps of each design phase have been built using a blend of feedback spirals and metacognitively scaffolded prompts that are designed to activate experiential learning (using Bloom's (2000) revised taxonomy, Wiggins' & McTighe's (2009) 6 Facets of Understanding, and Zimmerman's (2013) Phases and Subprocess of Self-Regulation). In regards to the specific selfassessment activities, benchmark activities are based on Rolheiser's (1996) growth scheme for teacher implementation of stages of student self-assessment and student self-rating is done using a modified version of Marzano's (2006) 4-Point Self-Assessment Scale. This presentation will report on our experiences in trialing the SkillTrack! app as part of an ongoing collaboration with Claregalway College. We will also discuss how the lessons learned from the first trial of SkillTrack! have been applied in a second trial at Claregalway College that is currently underway.

#### Adrian O'Connor, Niall Seery, Donal Canty University of Limerick

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#### Mobile Technology in Initial Technology Teacher Education: A Means of Developing Ubiquitous Learning

With shrinking budgets, rising pupil enrolments, teacher attrition, growing assessment demands, and recent advancements in Information and Communications Technology (ICT), schools and classrooms are increasingly viewing online learning as a viable reform tool and innovative solution to issues they are currently facing. However, integrating online and blended learning into a traditional setting involves more than a plug-and-play approach. It requires a new educational paradigm. Although what that framework ultimately looks like is yet to be seen, teaching in these new contexts will require an innovative pedagogic approach that supports contemporary educational practices and seamlessly integrates virtual technology to enhance the learning space. In general, traditional practice allows for education and instruction to be delivered in a physical classroom setting and the contemporary practices of online and blended learning allows for education and instruction to be delivered primarily via the internet in a virtual classroom setting, or in part via the internet in a virtual classroom setting with some element of a physical classroom setting. However, as more and more schools continue to install wireless broadband systems and access to mobile technology becomes increasingly more ubiquitous, education and instruction are no longer confined to a classroom setting as new configurations for the delivery of education and instruction are now possible in almost any conceivable setting. This shift is about student-centred learning where technology is no longer a barrier to learning, but works for students, adapting to students' needs and remaining in the background until required. Klokmose (2007) defines this shift as ubiquitous learning. With the use of mobile technology, this study focuses on developing this new approach to learning within Initial Technology Teacher Education

(ITTE) to support the exchange of information anytime, anywhere. The research participants included 62 third year student teachers (7 Female, 55 Male), and took place during a 12 week module delivered as part of the B. Tech (Ed) - NFQ Level 8 Honours Degree, University of Limerick. In an effort to create a ubiquitous learning environment which allows education and instruction to be delivered traditionally and/or via the internet by seamlessly embedding virtual presence into the physical classroom, the methodology integrated a popular learning management app supported on both mobile technologies and stationary computers. Central to the delivery of the approach was the design of the educational transaction. This took the shape of a formative activity which required participants to demonstrate collaborative problem solving. Using prescribed hashtags (e.g. #analyse) participants demonstrated evidence-based progress of their learning process and the product of their learning by working iteratively and posting annotative comments, participating in collaborative discourse with their teachers and peers, and uploading subsequent data files to their mobile app. This allowed individual data sources to be mapped to a standards-referenced continuum of collaborative problem solving ranging from low proficiency to high proficiency that describes participants capabilities in terms of the social and cognitive tasks performed or competencies displayed during the educational transaction. Results suggest that steps taken to develop a ubiquitous environment stimulated a more complete learning cycle.

#### Dr. Alice Flores, Dr. John Ittelson, Mr. Michael Slade California State University - CalStateTEACH Program

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#### MyBook + Services - A New Approach to the LMS

Learning management systems (LMS) started in the 1960s as a way of managing the digital delivery of education for CDCs PLATO system. Today the LMS is often the central connection point for faculty and students. The LMS is where faculty create classes, make assignments, and monitor student work. The LMS is where students go to find content and assignments and return to submit work. Because there are so many services and so much storage involved in an LMS, it is often expensive. One of the research objectives at CalStateTEACH is to find ways to leverage technology in ways that complement learning. The best approach is to have technologies that don't get in the way and are not expensive to implement. Often, the public K-12 schools in the United States where most of our teacher candidates will work cannot afford an expensive LMS. At CalStateTEACH itself, the needs for an LMS are different than most institutions. Rather than many courses created by and administered by many faculty, CalStateTEACH has a small set of courses broken into modules which are centrally created by the CalStateTEACH curriculum committee and administered by faculty. The program is given over a period of three to five terms, depending on the needs of the teacher candidate. The content and assignments for each term is well defined in the modules. The curriculum committee also works to continually improve the modules. This presentation will discuss the objectives, methods, and expected benefits of an experimental approach to delivering and managing learning. The system is being tested starting in January 2016 at CalStateTEACH. A central element in this system is called

MyBook. MyBook is part of a new approach to one portion of learning management systems. MyBook is the combination of content delivery and student response into an integrated whole. The CalStateTEACH program has been a 1:1 iPad program since 2011. In addition to iPad, MyBook leverages several free and inexpensive technologies. MyBooks use Apple's free iBooks Author program to create Multi-Touch books, Google Apps for Education (GAFE) for document creation and storage of submissions, and Hapara as an inexpensive layer on top of GAFE to provide distribution of materials and allow faculty to view and comment on teacher candidate work. In exploring this kind of teaching integration we hope to find new ways to leverage useful educational technology in ways that make the lives of our faculty and teacher candidates better. There is also a potential to make these materials useful to the larger education community.

## Dr. Sharon Russell, Dr. Nan Barker, Karen DeVoogd CalStateTEACH, California State University

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#### **Using iPads to Facilitate Evaluation in Teacher Preparation**

This session will be a demonstration of the CalStateTEACH Observation Event (OE) and a summary of data analyses of CalStateTEACH faculty ratings of teacher candidate performance using California Teaching Performance Expectations (TPEs) (Commission for Teacher Credentialing, 2013). The OE is a technology interface for lesson planning and faculty evaluation. Data collected over three terms in the program is displayed in a data dashboard and is used to monitor candidate growth. CalStateTEACH is a teacher education program that incorporates innovation, integration of technology, and reflection (Mishra, Koehler, & Henrikson, 2011) in preparing candidates to teach in elementary school settings. The OE was developed to give credential candidates more control over the classroom observation process by determining the lesson focus and by choosing two or three TPEs to demonstrate their pedagogical proficiency levels based on California TPEs. Candidates begin by completing a lesson plan with a self-evaluation of the selected TPEs and a rationale for the rating. Next in the lesson cycle faculty mentors provide feedback in a preconference. At a school site, the candidate's electronic lesson plan becomes the script for the faculty observation. The plan and associated preconference information is visible on the faculty's iPad. Faculty can make suggestions and observations that relate to what is taking place without having to retype a narration of what is occurring. Faculty mentors rate the candidates on selected TPEs and provide feedback. The ratings are collected electronically for all teacher candidates in the program. Observation visits can also be performed virtually. The candidate creates a video as the lesson is taught. Following the lesson, the candidate uses a

unique annotation feature to make reflective comments as the recorded lesson plays and then sends the video recorded lesson attached to a lesson plan to a faculty mentor for review. This ability to video record classroom observations facilitates teacher candidate self-reflection and self-assessment (Rich & Hannafin, 2009). Faculty ratings of 267 teacher candidates pedagogical proficiency levels of 11 California TPEs for 6,392 OEs and 6,494 module evaluations were collected and analyzed. For each combination of TPEs and terms, correlation coefficients and their probabilities were calculated between the average and maximum ratings, the average ratings and counts, the maximum ratings and counts, and the minimum ratings and counts. Repeated measures ANOVAs for the average ratings for TPEs for which sufficient data were available over all three terms were calculated. In addition, for the linear and quadratic ANOVA tests, degrees of freedom, F-tests, probabilities, and eta squares are reported. The .05 level of significance was used. Results of the statistical analyses indicate that teaching performance consistently improves with each term completed. The mean averages by term suggest faculty evaluation of performance has some variation within each term and there is discrimination of ratings over the three terms. Overall, data collected from the OE indicate student selection of TPEs and faculty ratings demonstrate growth over time in teacher candidates' performance in multiple aspects of teaching.

#### Ailís Travers Dublin City University

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# From Textbooks to iPads: Developing a Holistic Educational Practice in Religious Education.

The paper highlights the importance of narrative and value-driven experiential learning when using digital technology to enhance and develop practice. The research process incorporates an entrepreneurial methodology - an Educational Entrepreneurial approach to action research - with four steps: Exploring, Understanding, Creating and Transforming, which is designed to guide practitioner-researchers as they embrace digital technology to resolve an identified need in a workplace context (Crotty 2014). In this research, there was an identified need for a new approach to religious education to integrate newly adopted 1:1 iPad technology and the transition from exam to non-exam Religious Education (RE). The focus of the research is a project being carried out by the researcher in collaboration with the rest of the RE department. The aim of the project is for students to explore places of religious significance and to collate their findings as an iBook. The emphasis is on student-created content rather than teacher-created content and explores how students can collaborate to be creators rather than just consumers of content. The project involves a number of year groups and the wider school community. A further aim of the research is to illustrate how other teachers can carry out similar projects. The research is being carried out in part-fulfilment of the coursework requirements for the Professional Doctorate in Education at Dublin City University (DCU).

#### Helen Caldwell University of Northampton, UK

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#### Mobile Technologies as a Catalyst for Pedagogic Innovation within Learning Communities in Teacher Education

This paper reviews the use of mobile technologies within teacher education at the University of Northampton. Over five years the School of Education has experimented with approaches to teaching and learning with mobile technologies based on a social constructivist model of learning, which can be a powerful way for participants to create, explore and share ideas and to empower communities of professionals to bring about changes in practice (Caldwell & Heaton, 2015). In order to develop a strong commitment to digital literacy the School of Education is using sets of teaching iPads with trainee teachers and has allocated an iPad to every member of academic staff. Experiences from four mobile technology projects involving ITT students, primary school teachers and academics will be shared: Technology Outdoors, Stem to SteAm, Apps for Innovation and Best Practice Across Europe. Across these projects, a number of online and face-to-face approaches were used to develop shared pedagogic strategies and capture examples from practice. Online initiatives include project blogs (https://mypad.northampton.ac.uk/inspire/ home/), online communities (https://plus.google.com/u/0/ communities/110218249780833007111), and a connectivist MOOC. The Teaching with Tablets MOOC is based, in part, on the book Teaching with Tablets (Caldwell & Bird, 2014). It aims to facilitate, capture and share practice for educators at all levels on how to make effective use of iPads and tablets. Informed by the new models of social, mobile and online teaching and learning that the university is trialling, it is designed to explore the advantages of hybrid MOOCs. Face-to-face mobile technology initiatives include a campus App Café, the recruitment of 20 volunteer student Digital Leaders, and events such as

Teachmeets and Digital Playdates that bring together teachers, academics, students and pupils. Student Digital Leaders support digital learning across the mobile technology projects. They also work with pupil Digital Leaders in primary schools (http:// www.digitalleadernetwork.co.uk). The University and local schools benefit from their input, and the students themselves learn transferable skills that enhance their employability. Digital Playdates are hands-on professional learning events gathering pace in the US based on the acronym People Learning and Asking Y, in which presentations are replaced by the opportunity to explore, collaborate and play with mobile technologies and apps (https://sites.google.com/site/playdatechicago13/home). Together, these face-to-face and online initiatives illustrate how mobile technologies have been a catalyst for new pedagogies in our teacher education programmes. We aim to develop creative self-directed learners who can work in collaborative teams within a professional community of teachers, academics and students. We are moving in the direction of informal, networked, technology-enabled learning. We have considered ways in which mobile devices fit with a connectivist pedagogy extending learning beyond taught sessions, and how the use of apps to make shareable artefacts can lead to purposeful engagement. To this end, we are focusing on a set of core apps that facilitate the creation, collaboration, curation, and capture of content. This paper summarises the apps and pedagogic approaches we have adopted for teaching with mobile technologies as a result of our project work and outlines our strategies for building communities of practice.

#### Kevin Burden, Matthew Kearney and Paul Hopkins The University of Hull, UK

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#### **Designing A Teacher Toolkit for the Mobile Learning Age**

Mobile learning considers the process of learning mediated by handheld devices such as smart phones and tablet computers (Schuler, Winters & West 2012). The ubiquity and diverse capabilities of these technologies have created considerable interest amongst educators (Authors 2012; Foley & Reveles 2014; Johnson, Adams Becker, Estrada & Martín 2013) who seek to investigate their application for learning on the move (Sharples 2013) across a variety of formal and informal contexts. Recent interest in mobile learning has increasingly focused on this issue of context, and mobile technologies have been described as boundary crossing objects since they enable learning to extend beyond the bounded context of the institution and across the different settings in which learning occurs. However, the emerging research literature suggests teachers tend to default to traditional teaching practices in formal classroom settings, focusing on teacher-directed approaches and content delivery (Rushby, 2012). If boundless learning is to become more commonplace, therefore, educators need to better understand how to design learning experiences which genuinely exploit the unique affordances of mobile technologies, such as their ability to foster self-directed learning, which transcends traditional binaries such as formal and informal learning or face-to-face and virtual learning. The authors of this paper are currently leading a transnational European Erasmus+ project (www.mttep.eu) which seeks to realise this ambition by developing a European mobile learning network for teacher educators and a mobile learning toolkit to translate these ideas into practice. This paper presents the theoretical underpinnings for this toolkit and introduces the different tools and instruments that are being developed. The challenge for teacher educators is to facilitate the ability of preservice teachers to enhance their learning and teaching process

through implementing and integrating mobile technology to support teaching practices. Teacher educators themselves need to model this technology integration in their own teaching allowing for sound theoretical and pedagogical decisions to be made (Broda et al., 2011). The toolkit produced in this project will act as a catalyst for developing such practices.

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### The Use of Mobile Digital Media for Teaching and Learning on Field Visits: A Case Study.

As part of an Erasmus+ project being led by the University of Hull, the secondary history PGCE students have been trialling the use of iPads during visits to the First World War battlefields in Belgium and France to enhance teaching and learning. This is in two parts. First as a teaching tool through a teacher-produced eBook, loaded onto students' iPads that contain a range of instructional and background information that can be accessed at various points during the visit by students. These are designed to provide information and to meet specific planned learning outcomes and develop identified historical skills at specific locations. Secondly, students use their iPads as an information collection device to collect and select information to create an outcome called an 'artefact of achievement'. Prior to the visit students are given the name of a soldier (their namesake), as a focus whose memorial they can locate during the visit. Using the App Explain Everything students collect information from a variety of sources; sites, memorials, museums and guides to develop an understanding of the war in which the identified soldier died. The affordances provided by iPads enable students to select appropriate material to create a narrative of the soldier. Students then use the App Book Creator to make their own interactive eBook of the soldiers story. Evidence collected to date, suggests strongly that students engage more with the production of an eBook than they would with traditional worksheets because of the diversity offered by the technology. To construct the 'artefact of achievement' they are able to include

photographs, text, movies, narrations and interviews to construct an authentic and professional presentation.

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#### **Designing Technology-Enhanced Learning to Mobilise and Augment Students' Engagement with English Literature**

Students are disengaging from learning and literature learning in post-primary education in Ireland due to an over-emphasis on rote learning practices and the constraints of high stakes, summative assessments (Chief Examiners Report 2008 and 2013, Hyland 2011, Smyth 2009, Smyth et. al. 2006). Further, the potential of ensemble-based pedagogy, multimodal texts, technology-enhanced learning and digital content creation can render learning experiences more engaging, dynamic and creative (Dowdall 2006, Kress 2003, Livingstone and Haddon 2009, Neelands 2009, Pahl 2006). Therefore, this research explores the design, development and evaluation of technologyenhanced and ensemble-based learning in English education at post-primary level to augment students' engagement with English literature. This research refers to such a process as Digital Ensemble. Ensemble pedagogy is the active and collaborative process of employing drama-based teaching and learning strategies to explore and embody key moments in literature. This research considers engagement with literature as an experiential process whereby students are enjoying their literary studies while confidently engaging in expressive, affective, and abstract learning of personal significance to them. This research illustrates the development of a cyclical study, undertaken on a longitudinal basis, over four years and three design cycles with two post-primary schools in the West of Ireland. The research was conducted over a total of 15 weeks and 85 teaching hours. 131 senior cycle students, aged between 15 and 17 years participated: 45 students in cycle one, 46 students in cycle two and 45 students in cycle three. Two teachers of English also participated. The theoretically informed design framework, ENaCT, was used to explore systematically

the design and implementation of the Digital Ensemble intervention with students. Design-Based Research (DBR) was employed as the principal methodological orientation. The rationale for employing DBR was the requirement to develop scalable and robust design solutions for specific educational contexts through the implementation of a cyclical interventionist process of improving and finessing a learning design. Data collection methods included video recordings, student feedback questionnaires, group interviews, student artefacts, evaluation rubrics and ethnographic observations. Approximately 107 hours of video data were gathered and were the subject of careful analysis, framed by the ENaCT design model and the extant research literature. The findings of this research study illustrate the affordances of Digital Ensemble to encourage students to employ constructionist technology productively and creatively within English education to augment their engagement with literature. A significant contribution of this research is the development of a short course for the newly implemented Junior Cycle Student Award (JCSA) programme in Ireland. This course enumerates the process of utilising mobile technologies as a constructionist tool to support the creation of digital artefacts that evidence students engagement with literature. Further, the ENaCT prototype design model, which emerged from this longitudinal, design-based research, describes four key criteria and five supporting design informants for designing, implementing and evaluating digital ensemble to augment students engagement with literature. This ENaCT design framework is adaptable and adoptable by other educationists and educational researchers, in using technology to enhance ensemble-based English education.

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#### iPad Pedagogy in Teacher Education

Kokkola University Consortium Chydenius educates adult teacher students in a two-year program to become primary school teachers. Teachers play a key role in changing the way pupils learn. It is crucial to educate student teachers to become experts in ICT-skills and ensure they are motivated to use new technology in learning. Understanding 21st century pedagogy, knowledge and skills are also in a central part of teachers' professional development. This understanding is built on TPACKmodel (Mishra & Kohler, 2007). The heart of using ICT lies on the pedagogy and on the curriculum. The revised Finnish National Core Curriculum becomes effective in 2016. The curriculum includes ICT educational reforms that include the development of skills, with particular attention to the learning environment and teaching methodologies where students are provided with a diversity of opportunities to use ICT devices, various programs, and a variety contexts and service applications and an opportunity to use the internet. The pedagogical aims should be as diverse and multifaceted as modern technology. Schools with proficient ICT teachers share their enthusiasm and knowledge with their colleagues, resulting in positive influences on the children's education by offering diverse and contemporary teaching methodologies using modern technology. Therefore, providing teachers students with technological training and pedagogical education is of tantamount importance. In our adult education programme ICT and tablet technology is adapted to pedagogy and studies throughout different courses. We have one-to-one model in adapting iPad as a technical and pedagogical tool for learning. Our teacher students start their

teacher studies on January and they get their own device right from the start. Both technical and pedagogical support is given to them and they learn to use iPad as a tool for their learning but also as a tool for creating meaningful learning environments for pupils. In this presentation we will model how our teacher students are guided to use tablet in a meaningful and pedagogical way during their first spring and we shall present our findings of how the using of iPads is built in our course system to offer as much experience of the use of tablet as possible. The aim of this study is to research the importance of how teacher students should be educated from the beginning of their teacher studies to become experts in using tablet technology as a tool for learning and to present how our education has created a path for ensuring this.

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# School on the Cloud: Connecting Education to the Cloud for Digital Citizenship.

School on the Cloud: connecting education to the Cloud for the digital citizenship network (SoC) initiative is an ICT network funded by the European Commission under the Lifelong Learning Programme. SOC is a 3 year project (started in January 2014) with 57 Partners who represent 18 European countries including 10 schools, 21 universities, companies, NGOs, national authorities, research centers, associations and adult education providers. What is its aim? To explore new and dynamic ways in education that align with the way we share, learn and collaborate, across various education sectors, by availing of the opportunities arising from Cloud environments. This will be investigated in 4 different work groups. SoC addresses three key questions, through the four Working Groups:

- 1. How should education respond to the potential of Cloudbased tools and technologies?
- 2. What is the impact on education stakeholders?
- 3. What might the situation be like in the future?What is the aim of each Working Group?

i-Manager WG 1 examines aspects of educational leadership, management and organizational change in an era of Cloud-based developments. The goal is to identify and share technological, social, economic, cultural and other experiences in different educational contexts.

i-Teacher WG 2 explores the impact of the Cloud on the roles of teachers and trainers in Education and discusses how we can use new technology and Cloud applications as a value-added component in Education. It also explores teachers as innovators. It will review learning and teaching approaches and provides practical and essential guidance for teachers and teacher educators.

i-Learner WG3 will bring together teachers and educators, schools, colleges and adult education to exploit the opportunities resulting from both formal and informal learning situations. It will define personalised learning, develop a manual on how to implement it and demonstrate existing good-practice case studies.

i-Future WG4 will deal with topics like: the role, processes and impact of open (education) resources through the Cloud, the availability of free and available information using the Cloud, new generation tools for the Cloud, communicating and publishing on the Cloud and the resultant issues such as ethics and IPR.

The Project researched and published Education on the Cloud 2014: State of the Art which curated how different European countries are making transitions to using the Cloud in education.

i) cloud policy and education,

ii) who is promoting the cloud,

iii) who is using the cloud for education.

Our Case Study report from November 2015 documents the state of the art concerning Cloud Computing in Education through 59 case studies gathered in partner countries across Europe. It describes recent developments in partner countries in using the Cloud in Education. Project links:

http://www.schoolonthecloud.net/

https://twitter.com/school cloud

https://www.facebook.com/SchoolOntheCloudhttps://

www.linkedin.com/groups/schooloncloud-7426807

# Saturday's Workshops & Presentations



#### Mark Finlay PDST

#### **Problem solving using ICT/Project-based learning using ICT**

#### Biog.

Mark Finlay is an advisor with the Professional Development Service for Teachers (PDST). He is seconded from Bushypark N.S. in Galway city. Mark has designed and delivered a range of ICT courses for PDST and is currently involved in course design in a range of primary curricular areas such as numeracy, assessment and active learning through ICT. Mark worked in the ICT industry prior to working in education.

#### **Presentation / Workshop Outline.**

This workshop challenges us as teachers to adopt a constructivist approach when it comes to the use of ICT. How can we challenge students through open ended investigations equipped with mobile technologies? How can we challenge students to deepen their knowledge and create new knowledge as a result? Participants will explore a range of activities and apps that can be used by educators and children to enhance the problem solving process in the classroom.

#### Martin Brown PDST

Assessment of and for learning using ICT (including the use of ePortfolios)

#### Biog.

Dr. Martin Brown is an advisor with the Professional Development Service for Teachers and seconded from Boyne College, Trim, Co. Meath. He works with schools and teachers throughout the country to integrate ICT into teaching and learning, the purpose of which is to enhance learner outcomes, student experience and teacher practice in a purposeful and pragmatic way. **Presentation / Workshop Outline.** 

Do you want your students to show what they have learned in a variety of formats? Can we provide meaningful feedback at various points along the way? Can ICT be used by the student to respond to this feedback? Can we provide opportunities for students to reflect on how they learn? This workshop examines all these things and provides possibilities.

#### Simon Grehan

Maintaining high standards of professional conduct and protecting your professional reputation when using social media

#### Biog.

Simon Grehan coordinates the Webwise project in the **Professional Development** Service for Teachers -**Technology in Education.** Webwise promotes the safer, more effective use of the internet by children in Ireland through the development and implementation of education and awarenessraising programmes. Simon is a partner in the EU Kids Online **Research Network and was a** member of the Anti-bullying working group established by the **Department of Education and** Skills and the Department of Justice and Law Reform's **Internet Safety Advisory Council.** 

#### **Presentation / Workshop Outline.**

The context in which we teach is changing at a pace. Internet and mobile phone technologies are blurring the lines between our personal and professional lives. This workshop will help you to use social media to its full potential while at the same time upholding the professional values of: respect, care, integrity and trust. We will look at the policies and codes of behaviour that govern our behaviour on social media platforms. We will look some of the legal protections and reporting mechanisms open to you to protect your professional reputation when it is being threatened online.

We will discuss how to manage your personal social media accounts to protect your professional reputation.

#### Siobhan O'Sullivan PDST

Digital literacies: Finding, selecting and managing online information; with reference to research methods as we ask teachers to be action researchers

#### Biog.

Siobhan is a post-primary teacher who is seconded to the Professional Development Service for Teachers (PDST). She works with schools and teachers throughout the country to integrate and embed ICT in teaching and learning in a meaningful way, to improve learner experiences and outcomes. @0812Siobhan

#### **Presentation / Workshop Outline.**

We have moved from an age of information scarcity to one of information abundance. This workshop explores how teachers and students can be more critical and discerning when it comes to finding and selecting information they require.

Participants will learn how to purposefully search for information online through the use of classroom focused resource directories, search engines and repositories. Emphasis will be placed on developing teachers' knowledge of simple features, operators and functions which can allow access to good quality teaching and learning materials online.

#### Seán Gallagher PDST

#### A continuum of digital images using mobile devices

#### Biog.

Seán is a primary school Principal on secondment from Attymass NS, Ballina, Co. Mayo. Since the establishment of the **Professional Development** Service for Teachers (PDST), Seán has been the Deputy **Director with responsibility for ICT.** He has presented workshops as part of the PDST Technology in Education team at MiTE 2015. Seán is involved in the design and facilitation of PDST **Technology in Education term**time and summer courses in a range of primary curricular areas such as literacy, numeracy, assessment and active learning through ICT.

#### **Presentation / Workshop Outline.**

The extent of our learning is often assessed by how well we can express ourselves using pen and paper. This workshop explores a variety of ways that learning can be expressed in digital format.

- Images: still, panorama, 360 degree view, time lapse, video.....
  - Annotating still images for emphasis Sound files
  - Collaborative and independent development of documents and presentations

Digital story-telling applications ..... and combinations of all using a variety of online tools/applications.

#### Bea Leiderman Goochland County Public Schools (Goochland, VA, USA)

#### **Creating a digital culture**

#### Biog.

Bea Leiderman is the Secondary Instructional Coach in Goochland County, VA. She works with students and teachers in grades 6-12 in a partial 1:1 iPad environment. Bea is an Apple Distinguished Educator and the author of several books on macro photography and insects.

#### **Presentation / Workshop Outline.**

Goochland Middle School's 1:1 iPad program is in its second year and the culture in the building is visibly changing. In this session, the presenter will share how the instructional technology coach, the principal and assistant principal have worked together to lead the school through its digital revolution. School leadership has provided essential tools along with ongoing support and personalized professional learning opportunities for teachers. Using Schoology, GAFE for collaboration and communication, and looking at TPACK and SAMR for guidance, this team approach to PD is transforming the school community to provide a robust digital learning environment for all of its members.

#### Keith Young Maynooth University

ICT key skills; using a whole-school approach to support students and teachers

#### Biog.

Keith is a PhD candidate and part-time lecturer in Maynooth University's Department of Education, where he works on various modules of the **Professional Master of Education** courses with a focus on the effective use of technology in education. His PhD research focuses on the impact that mobile technology has on relationships of learning between students and teachers. His wider research interests include mobile learning as a practice paradigm, leadership for mobile learning and socially-connected learning spaces. Keith holds an MSc in Education Management (elearning) from Dublin City University. Keith continues to work with schools on their mobile learning programmes and provides professional development courses to teachers in schools and education centres nationwide and has recently returned from an extended professional development programme with teachers in China.

#### **Presentation / Workshop Outline.**

We often hear that students are digital natives, and while it's true that they are enthusiastic users of technology, they don't automatically have the skills to use technology fully and effectively for learning. In this workshop we will look at a student ICT and Key Skills training course that was developed and delivered in a number of schools during Sept/Oct 2015.

The full-day activity was based on a student research project (led by the students' own teachers who are usually class tutors) where they used the internet to find and evaluate information, organised their ideas and research, and expressed their ideas to a large group through a group presentation. Throughout these tasks, students used a variety of tools to support their activities. Following the training activities, the teachers who led the training sessions worked with groups of their colleagues to ensure that the newly-acquired skills of the students were employed in all their other classes.

#### Miriam Walsh St. John's Central College. Cork.

#### Biog.

Miriam is a Further Education teacher based in Cork teaching multimedia, english and digital marketing. Miriam was also part of the team who established Cork ETB's iTunes U platform and in 2013 w a s r e c o g n i s e d a s a n A p p l e Distinguished Educator. She is currently on the ADE Advisory Board for EMEIA. (Europe, Middle East, India, Asia).

#### **Using iTunes U to create ePortfolios**

#### **Presentation / Workshop Outline.**

This presentation will discuss the benefits of using iTunes U courses with a class and demonstrate how courses can be used to create ePortfolios and CV portfolios, which students can use both for submitting work and for job / college interviews.

This will be a practical demonstration showing examples of how students in Higher Ed are currently using courses to create portfolios. The benefits of having paperless, digital work submissions will also be discussed.

#### Dr. Chris Penny and Dr. Jordan Schugar West Chester University, Pennsylvania, USA

To beacon or not to beacon - make schools interactive with iBeacons

#### Biog.

Dr. Chris Penny is a Professor of **Education at West Chester** University and a graduate of Penn State University. In 2007 he became an Apple Distinguished Educator, and in 2009 a Google Certified Teacher. Dr. Jordan Schugar is an Assistant Professor of English at the West Chester University of Pennsylvania. His research interests include mobile pedagogies, eReading text comprehension, wearable technologies, and figurative language. He was named an Apple **Distinguished Educator in 2013.** 

#### **Presentation / Workshop Outline.**

Step into an interactive classroom to learn how and why proximity technology can be used in education. We are a team of educational technology nerds interested in helping teachers harness the power of these new tools. Join us for a hands-on workshop where we will explore and create our own i B e a c o n a p p s - n o p r o g r a m m i n g background required! You will leave this workshop feeling empowered with ideas and skills to make your school interactive!

#### Video: <u>https://www.youtube.com/watch?</u> <u>v=CXa3ITa7f04</u>

#### Catherine Mangan Holy Cross Mercy School Killarney

#### Biog.

Catherine Mangan is a teacher in Holy Cross Mercy School Killarney. She has co-authored primary textbooks for early years. Catherine is an Apple Distinguished Educator and a member of the ADE board for EMEIA (Europe, Middle East, India, Asia). Catherine is a leader in the area of technology in primary and early years education. Using iPads to develop early literacy skills

#### **Presentation / Workshop Outline.**

Teachers will be shown simple and effective ways of expanding Early Literacy Skills using iPad Apps and Teacher-Created iBooks. I will showcase how I have created successful and confident speakers in my infant classes by the use of iMovie, Adobe Voice, iTunes U and Book Creator. I will show how iPads can be used to learn basic vocabulary, phonics and spelling in a fun and engaging way.

Teachers will also learn how, by the use of Seesaw and Class Dojo, all parents have become engaged with their child's learning.

#### Donncha Ó Treasaigh Gaelcholáiste Luimnigh - Limerick and Clare ETB

Using iTunes U to compile a complete staff handbook for post-primary

#### Biog.

Donncha Ó Treasaigh is principal of Gaelcholáiste Luimnigh, a 600-pupil postprimary school in Limerick City. He is an Apple Distinguished Educator and an Apple Professional Development Consultant.

He has considerable experience in management and education leadership. Currently, he is the Chairperson of NAPD Region 6 (Limerick, Clare & Kerry). He is also the ETB Sectoral Representative for NAPD Region 6. He is Secretary of the ETBI sub-committee on ETB All-Irish Post Primary Colleges. He is a Member of the Hunt Museum Board of Directors.

Donncha has been appointed to the Junior Cycle Team to assist with in-service of school personnel in preparation for the commencement of the new Junior Cycle Student Award course. Recently, Donncha has been selected by NAPD to be mentor for newly qualified Principals and Deputy Principals.

#### **Presentation / Workshop Outline.**

Secondary schools have, for several years, paid considerable amounts of money on printing very expensive Staff Handbooks for each of their teachers, so as to satisfy the Inspectorate in the event of a School Inspection or School Evaluation.

Gaelcholáiste Luimnigh uses iTunes U to redefine the Staff Handbook experience for teachers and school management, and to create a far more interactive and dynamic medium for school personnel to utilise.

This transformation has saved Gaelcholáiste Luimnigh thousands of euro each year for the last three years.

Donncha Ó Treasaigh will demonstrate what this looks like in Gaelcholáiste Luimnigh, and the path the school took to achieve it. He will also show principals and teachers how exactly they can replicate this in their own schools.

#### Cormac Cahill Carrigaline Educate Together National School

#### Biog.

Cormac is an Apple Education Trainer and Apple Distinguished Educator. He currently works in the ASD Unit at Carrigaline Educate Together National School in Cork. He is a graduate of Mary Immaculate College and also holds a Masters Degree in Digital Media Development for Education from the University of Limerick. Using Minecraft Cormac's class have created and published comics to the iTunes Store. They also won the overall award at the Fís Film Festival in 2014 with a movie created using Minecraft. Minecraft as a storytelling tool

#### **Presentation / Workshop Outline.**

Minecraft can be far more than a game. In the classroom it's a place where children can build sets or imagine strange new worlds. It's a place where they can create characters to inhabit these worlds. But most of all it is a place where children can share their amazing stories. This presentation showcases how Minecraft can be used as a tool for literacy development in children with writing difficulties and as a tool for incredible storytelling. The presentation features just a few apps which, when used with Minecraft, can produce wonderful results.

#### Dr Johan Andersson Margretelund school, Sweden

#### Biog.

Johan Andersson (PhD) is a Swedish science teacher. Having implemented technologies within his own classroom he became passionate about finding an alternative for the traditional textbook within the education system. He teaches in a classroom where everyone will feel at home. He decided that technology has changed the role of the textbook as we know it, and tries to share his visions with schools within Sweden. As a true global citizen who lived in the UK, Russia and the US, Johan previously was a professional dancer who performed on National Swedish television.

#### Personally, for your heart and mind

#### **Presentation / Workshop Outline.**

Activity-based learning is a concept where you try to explain larger concepts in a subject with an activity in one or in several lessons. To make the learning interesting and motivational the activity needs to be personal to the student and appeal to their heart as well as their minds. I build all my lessons around this concept using iTunes U and multi-touch text books. This gives me the opportunity to use multiple ways of reaching my students as they have several different preferences in their learning styles. They are also given the opportunity to use their talents to show their knowledge and skills. How can we today use natural ways of expressing ourselves in all subjects even the most theoretical? Humans normally express themselves in ways that produce all wonderful things called the arts. So how can we use writing poetry, dancing, composing music and painting masterpieces in all our subjects?

#### Thomas Creighton Apple Professional Development Consultant, Ireland

#### **Experience the mobile classroom (with iPad)**

#### Biog.

Thomas is an Apple Professional Development Consultant (APD) providing teachers/educators and the agencies that support them with extensive training in the field of mobile technology in the classroom and 21st Century Learning Design. He works with all levels of the education system and with a keen interest in accessibility, he examines technology to see how it can support a wide range of learners with different needs and abilities.

He can be contacted to arrange Professional Development courses for you at <u>thomascreighton@mac.com</u> **Presentation / Workshop Outline.** 

Step into and experience mobility in action in our simulated classroom with Thomas Creighton.

What are the possibilities and affordances of mobile devices in new educational creative spaces?

iPads will be provided for this session

#### Seán Ó Grádaigh & Sinéad Ní Ghuidhir National University of Ireland, Galway

The flipped classroom

#### Biog.

Seán & Sinéad are currently employed as a Lecturers in Education in the School of Education, National University of Ireland, Galway.

In 2013, they developed and coordinated the first fully-integrated 1:1 mobile device deployment on an **Initial Teacher Education programme** in Europe. Their model integrated iPad technology in every element of the programme from using video reflection of practice to piloting remote and mobile tutor visits. The Máistir Gairimiúil san Oideachas (MGO) programme places a particular emphasis on content creation where students author and publish iTunesU courses and curricular iBooks. The MGO is an Apple Distinguished Programme and Seán and Sinéad are both Apple Distinguished Educators.

**Presentation / Workshop Outline.** 

In this hands-on workshop you will experience flipped learning in our simulated classroom.

This workshop will be carried out on iPad using iTunes U, Keynote, iMovie and Padlet. iPads will be provided for this session

#### Paul Kelly Homeschool.ie

#### Google apps and the google classroom

#### Biog.

Paul Kelly is the founder of Ireland's Online Secondary School, Homeschool.ie A teacher of English and History at Beneavin College, Paul completed his MSc. in eLearning at DCU in 2013 and was appointed as an Apple Distinguished Educator 2015. A regular contributor of digital resources to the Scoilnet website, Paul is also heavily involved in curriculum development at national level in his role as Regional Associate for the Junior Cycle Network.

**Presentation / Workshop Outline.** 

A classroom teacher and IT leader shares his experience of introducing Google Apps for Education and Google Classroom into an Irish secondary school.

#### Niels Vanspauwen BookWidgets

#### **BookWidgets - interactive widgets for iBooks Author**

#### Biog.

Niels is the co-founder of BookWidgets. Married to a teacher and a father of 3 kids, he has a strong interest in changing education for the better by making mobile technology simple and efficient for teachers and students.

#### **Presentation / Workshop Outline.**

In this workshop, you will learn how to create interactive widgets for iBooks Author using the BookWidgets software. After a short tour of the software, you will get started making your own widgets, choosing from a wide range of activity types. You will learn how to apply these educational widgets to different age groups and subject areas.

We will also show how these widgets can be used beyond iBooks Author, and how to use them on any device: iPads, Android tablets, Chromebooks and PC's.

By the end of the session, you will be able to independently create widgets for your students.

#### Fons van den Berg See Genius

**iBooks Author: Beginner & Advanced (Tricks & Tips)** 

#### Biog.

Fons van den Berg is a former teacher turned professional development specialist at See Genius. As an Apple Education Trainer and consultant he supports schools in transforming teaching and learning in 1:1 environments. The 'whole school' approach he takes connects contemporary visions on learning, engaging pedagogy and learning content and sensible use of technology in vibrant learning spaces.

Learner focused pedagogies require a new take on learning materials. Students and teachers know best what works well in class. Designing and curating these learning materials however requires them to expand their skill set and mindset. Fons helps teachers do just that so it becomes very easy for them to connect existing and new resources and transform them in to exciting digital learning experiences.

#### **Presentation / Workshop Outline.**

There has never been a better time for teachers to create and distribute engaging, interactive learning materials. Teaching and learning with iPad doesn't mean you have to leave behind all the great learning resources you have created for your students through the years. Learn a quick and easy way to find additional digital materials and how to 'do the right thing' with Copyright and Creative Commons. Go hands-on with iBooks Author and transform existing leaning materials into interactive digital books that provide engaging learning experiences which can be used on your student's iPad.

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