
mec
2015
In the Light of the Midnight Sun
MEDIA EDUCATION CONFERENCE
15th – 17th June 2015, Sallatunturi, Finland

MEDIA EDUCATION CONFERENCE

MEC 2015 — In the Light of the Midnight Sun

15 – 17 June 2015

Sallatunturi, Finland

Programme and Abstracts

TABLE OF CONTENTS

Welcome to the Media Education Conference (MEC 2015)
In the Light of the Midnight Sun

MEC (former NBE) is an informal and friendly conference which participants attend to exchange ideas and information dealing with media education, educational use of ICTs and learning environments. MEC is organized by the Centre for Media Pedagogy at the University of Lapland.

The first international NBE Conference was held in 2005 and the second one, NBE 2007 Conference, **The Power of Media in Education** in 2007. The third NBE conference was held in connection with the ISATT 2009 Conference. These three conferences were organized at the University of Lapland in Rovaniemi, Finland. The fourth NBE Conference, **The Social Media in the Middle of Nowhere**, NBE 2011, was organized here in Sallatunturi, Salla and the fifth, **Media Education in No Man's Land**, in 2013 in Pyhätunturi, Finland.

The sixth conference — MEC2015 — is organized here in Sallatunturi again.

On behalf of our organising committee, it is my great pleasure to wish you all warmly welcome to MEC 2015 conference — I hope you enjoy joining our arctic dream team!

Professor Heli Ruokamo
Conference Chair

KEYNOTE SPEAKERS

Professor Frans Mäyrä, School of Information Sciences, University of Tampere, Finland

Frans Mäyrä is a Professor of Information Studies and Interactive Media, with specialization in digital culture and game studies in the University of Tampere, Finland. Mäyrä heads the University of Tampere Game Research Lab, teaching digital culture and games since early 1990s. He is widely consulted as an expert in socio-cultural issues relating to games, play and playfulness. His research interests range from game cultures, meaning making through playful interaction and online social play, to borderlines, identity, as well as transmedial fantasy and science fiction. He is currently leading the research project, Ludification of Culture and Society.

Professor Roger Säljö, Department of Education, University of Gothenburg,

Roger Säljö specializes in research on learning, interaction and human development in a sociocultural perspective, where he has published extensively. Much of his work is related to issues of how people learn to use cultural tools and how we acquire competences and skills that are foundational to learning in a socially and technologically complex society.

In recent years, he has worked extensively with issues that concern how the so-called new technologies transform human learning practices inside and outside formal schooling. In this field, he has been responsible for the national research program, LearnIT, funded by the Knowledge-Foundation and which finished in 2009. Roger Säljö has also been engaged in interdisciplinary work with colleagues from a range of different disciplines including medicine and health care, various natural sciences, linguistics and several others. Since 2006, he has been Director of the Linnaeus Centre for Research on Learning, Interaction and Mediated Communication in Contemporary Society (LinCS), a national centre of excellence funded by the Swedish Research Council. He is also Director of the national graduate school in the educational sciences, DSES, (2008 to date). Roger Säljö is one of the founding editors of the journal, 'Learning, Culture and Social Interaction'.

Associate Dean Sandra Feaster, Centre for Immersive and Simulation-based Learning, Stanford University, USA

Ms. Feaster is the Assistant Dean for the Centre for Immersive and Simulation-based Learning and the Director for the 28,000 square foot Goodman Immersive Learning Center in the Li-Ka Shing Center for Learning and Knowledge at Stanford University School of Medicine in California. She is responsible for facilitating collaboration and coordination of simulation activities throughout the Stanford School of Medicine (there are 5 free-standing facilities as well as several hospital-based programs). She is active in the Society for Simulation in Healthcare and the American College of Surgery Accredited Education Institutes. Ms. Feaster has held positions in clinical research, marketing, product management and government affairs in several medical device and medical service companies. She has also been instrumental in implementing process redesign activities in two Children's Hospitals in addition to her clinical work as a pediatric intensive care nurse. She holds a Master's Degree in Nursing and a Master's in Business Administration, and has completed course work in LEAN and Six Sigma at the black belt level.

PROGRAMME

Monday 15 June

Check-in at Sallatunturin Tuvat

14:00 – 17:00	Optional tour: Canoe trip on the wilderness lake
18:00 – 19:00	Registration
19:00 – 21:00	Conference Opening and Welcoming Dinner Sallatunturin Tuvat, Restaurant Kiela

Tuesday 16 June

09:00 – 09:30	Welcoming Address by Dr. **Heli Ruokamo**, University of Lapland, Professor, Faculty of Education, Director, Centre for Media Pedagogy Greetings from CICERO by **Jari Multisilta**, previous CICERO chair Greetings from the National Audiovisual Institute's Department for Media Education and Audiovisual Media (MEKU) by **Lauri Palsa**, Project Researcher
09:30 – 10:30	**Keynote 1**: *Games, Play and Playfulness: Ludic Turn in Culture and Society?* Professor **Frans Mäyrä**, School of Information Sciences, University of Tampere, Head of the University of Tampere Game Research Lab, Finland
10:30 – 11:00	Coffee/tea
11:00 – 11:40	**Playful and Game-Based Learning** Chair: Heli Ruokamo *Toys as Tools for Learning and Creativity in Adult Life* Katriina Heljakka *University of Turku, Finland* *Creative and playful digital media practices in the context of freestyle skiing* Marjaana Kangas, Olli Vesterinen *University of Helsinki, Finland*
11:40 – 13:00	Lunch
13:00 – 14:00	**Media and Code Literacies** Chair: Yngve Nordkvelle *How parents cope with media literacy: Good Practice and creative ideas from Switzerland* Eveline Hipeli Zurich University of Teacher Education, Switzerland

Behind the concepts of multiliteracy and media literacy in the renewed Finnish core curriculum: A systematic literature review on peer-reviewed research
Lauri Palsa[1,2], Heli Ruokamo[2]
[1]National audiovisual institute, Finland, [2]University of Lapland, Finland

Broadening code literacy education through metaphors of code
Tomi Dufva[1], Mikko Dufva[2]
[1]Aalto University, School of Arts, Design and Architecture, Finland, [2]VTT Technical

14:00 – 14:30 Coffee/tea

14:30 – 15:30 **Empowerment through Media**
Chair: Mari Maasilta

Towards Multiliteracies among the Young in Transitions of Learning
Sirkku Kotilainen, Mari Pienimäki
University of Tampere, Finland

Journalist studies for the indigenous Sámi - From preparatory courses to worldwide Indigenous Master studies
Torkel Rasmussen
Sámi University College, Norway

Mapping the obstacles and possibilities of new media technology and the needs of media education for refugee women in Finland
Mari Maasilta
University of Lapland, Finland

15:30 – 16:50 **Media and ICT in Teaching and Learning**
Chair: Hanna Vuojärvi

Developing a TPACK measurement instrument for 21st century pre-service teachers
Teemu Valtonen, Erkko Sointu, Kati Mäkitalo-Siegl
University of Eastern Finland, Finland

Can Learning Analytics Help to Understand the Learning Process?
Jari Multisilta
Tampere University of Technology, Pori Department, Finland

Students' perception of a personal and mobile learning environment in higher education
Hanna Vuojärvi
University of Lapland, Finland

20:00 – **Wilderness Hiking Tour**

Wednesday 17 June

09:00 – 09:30	Greetings from seminar.net by Professor **Yngve Nordkvelle**, Lillehammer University College, Norway Greetings from the Finnish Society on Media Education by Professor **Sirkku Kotilainen**
09:30 – 10:30	**Keynote 2:** *Learning, media and hybrid minds: from cave paintings to mobile technologies* Professor **Roger Säljö,** Department of Education, University of Gothenburg, Director of LinCS, Sweden
10:30 – 11:00	Coffee/tea
11:00 – 12:00	**Digital Story Telling** Chair: Heli Ruokamo *Young storytellers' pedagogical digital stories: what are they like?* Marianna Vivitsou, Johanna Penttilä, Veera Kallunki CICERO Learning Network, University of Helsinki, Finland *Media-making as a superfood for learning in and out of classrooms: identity shifts for learners and teachers* Erik Hamilton, Traci Garff, Antha Holt, Hiroo Kato, Janice Samuels, Sandra Sarmonpal, Helen Teague, Kim Welch Pepperdine University, USA *An odd journey of discovery in education media research* Eric Hamilton, Traci Garff, Antha Holt, Hiroo Kato, Janice Samuels, Sandra Sarmonpal, Helen Teague, Kim Welch Pepperdine University, USA
12:00 – 13:00	Lunch
13:00 – 14:00	**Keynote 3**: *Ending Death by PowerPoint: hanging the way we educate our students and healthcare professionals at Stanford University School of Medicine* Associate Dean **Sandra Feaster**, Assistant Dean for Immersive and Simulation-Based Learning, Program Director, Center for Immersive and Simulation-based Learning, Stanford University School of Medicine, USA
14:00 – 14:40	**3D, Virtual and Simulation-Based Learning** Chair: Tuulikki Keskitalo *What mediates learning in nursing simulations?* Paula Poikela[1], Marianne Teräs[2] [1]Lapland University of Applied Sciences, Finland, [2]University of Helsinki, Finland *A pedagogical model for simulation-based learning in healthcare* Tuulikki Keskitalo, Heli Ruokamo University of Lapland, Finland
14:40 – 15:10	Coffee/tea

15:10 – 16:10 **Internet and Social Media in Everyday Life**
Chair: Päivi Rasi

Sexting, body, identity and images of the self on social media sites among adolescents. From research to action through Peer&Media Education
Alessandra Carenzio, Simona Ferrari, Lorenzo De Cani, Sara Lo Jacono, Pier Cesare Rivoltella
Catholic University, Italy

Digital competences and agency of older people living in rural villages of Finnish Lapland
Päivi Rasi[1], Arja Kilpeläinen[2]
[1]University of Lapland, Faculty of Education, Centre for Media Pedagogy, Finland, [2]University of Lapland, Faculty of Social Sciences, Finland

19:00 – **Conference Closing Dinner**
Hosted by the Mayor of the Municipality of Salla, **Erkki Parkkinen**
Sallatunturin Tuvat, Restaurant Kiela

KEYNOTE ABSTRACTS

Games, Play and Playfulness: Ludic Turn in Culture and Society?

Frans Mäyrä
University of Tampere, School of Information Sciences, Tampere, Finland

Games have secured a visible foothold for themselves in the landscape of media culture, both as a digital and interactive form of entertainment, or even art, and as more generally as an approach or a tool that has been applied for promoting various practical goals in education and work life. As media, online services, marketing and business, among other things, adopt games, play or 'gamified' tactics, it is important to spread knowledge about 'ludic literacy' - what games and play, or playfulness and gamification actually are, and where they are taking us? Not all games are particularly playful, and adoption of playful or non-playful games can lead us into even opposite directions.

This talk will explore the role of games, play and playfulness in contemporary society, reflecting on historical trends of development, and suggesting some future potential directions. A recent manifesto put forward by game designer and scholar Eric Zimmerman claimed that we are moving into a 'Ludic Century', where static images or texts will be displaced as the dominant cultural form by games and dynamic play with information. If true, this transformation can, however, take multiple different forms, depending on which types of games and play will be likely to be uphold as exemplars that define the new paradigm. Alternative directions need to be explored, including those that fall under 'cultures of games', 'cultures of pervasive play' and 'cultures of ludification'. Furthermore, this will hold consequences for scholarship, where an ongoing shift from game studies to studies of play and playfulness in culture and society is arguably currently taking place.

Learning, media and hybrid minds: from cave paintings to mobile technologies

Roger Säljö
University of Gothenburg, Gothenburg, Sweden

Humans seem to have a strong inclination to communicate and to share experiences - we are a story-telling species. In addition to spoken language, we have developed a rich array of systems of sign-making that can be used for remembering, communicating and reasoning. Through inscriptions, documentary practices and artifacts, especially those associated with written communication and texts (scripts, models, graphs, drawings etc.), humans have been able to build up a social memory of enormous proportions. In document societies, insights and experiences cumulate over long periods, in some cases even millennia. In such an environment, cognitive activities - thinking, reading, remembering, and perception, problem-solving - take place largely through co-ordination with technological resources for meaning-making. The mind is thus best conceived as a hybrid, which builds on, and is intimately linked to, extra-cranial material and semiotic resources. Today, the world humans inhabit is replete with cognitive and material artifacts, and reasoning is located at the intersection of the human mind and external, technological resources that have often been crafted over long periods of time, and which are becoming increasingly diverse and powerful. The recognition of this intimate, and continuously developing, interdependence between materiality, inscriptions and reasoning is vital to understanding human cognition and learning, especially in the present situation where digital tools restructure our cognitive practices and invite new forms of material and intellectual engagement with the world.

Ending Death by PowerPoint: hanging the way we educate our students and healthcare professionals at Stanford University School of Medicine.

Sandra Feaster
Stanford University School of Medicine, Stanford, California, USA

PowerPoint presentations are one of our most popular presentation tools. If not done well, they're also one of the quickest ways to put an audience to sleep or have them reaching for their mobile devices. In medicine, we have historically used PowerPoint to teach the basic science courses that are necessary to become a doctor or nurse.

A chief complaint from our medical students is that they often cannot make the connection between the presentations in the classroom and how it applies to caring for real patients. When education is delivered out of context like this, it becomes difficult to retain and to subsequently use this education in the care of patients. How do we make sure that the education we are delivering actually "sticks?"

One technique is to engage medical students and help them integrate foundational learning with its practical application. Early in their training, they are given video modules that provide core content. Class time is then spent discussing patient cases or hearing a patient's story, practicing skills, or participating in simulation activities. The combination of viewing core content at the student's own pace and seeing the application of the foundation content with practical application is showing promise.

Another technique is using trigger videos to begin discussions that can be emotionally charged. An example of these trigger videos is the perception of student mistreatment. A video may show a student and faculty member in an uncomfortable verbal exchange. This provides the catalyst for discussion.

Immersive learning provides students the opportunity to practice specific skills using partial task trainers as well as to participate in multidisciplinary or single discipline mannequin-based simulations. This provides the best opportunity to integrate all aspects of learning. By offering activities where the learner is fully engaged, we believe that learning is improved and knowledge is better integrated into practice.

PRESENTATION ABSTRACTS

SESSION: Playful and Game-Based Learning

Toys as Tools for Learning and Creativity in Adult Life

Katriina Heljakka
University of Turku, Pori, Finland

Toys are most often defined solely as objects related to childhood and not as playthings for all ages. However, in an increasingly ludic society, the emergence of toy play activities at mature age has become perceivable due to developments on the internet and social media in everyday life. This study aims to situate toys (dolls, action figures and soft toys) as socially shared tools for learning, creativity and skill-building in adult life by analyzing case examples of unboxing videos, toy narratives and tutorials distributed and circulated in digital playscapes.

The meanings attached to and developed around physical playthings expand purposely by the means of digital and social media. Content sharing platforms such as Flickr, Pinterest, Instagram and YouTube invite transgenerational audiences to join in playful dialogues involving both mass-produced and DIY (do-it-yourself) toys. Activities communicated and circulated in digital play spaces such as blogs and photo management applications come to demonstrate how adults as non-professional 'everyday players', approach, manipulate and creatively cultivate contemporary playthings. Players of all ages educate the potential audience by introducing how to find, use and develop new skills around playthings; first by documenting and evaluating new acquirements in unboxing videos. Secondly, by sharing play patterns in reference to the playthings. And thirdly, by making and broadcasting tutorials on how to play creatively with them. Photographic play (photoplay) seems to be one of the most popular play patterns among mature toy users, but other creative activities of toy fans and hobbyists such as collecting, customizing, crafting and creating narratives exemplify further forms of socially shared, creative play behavior. Through still and animated images and textual and verbalized narrations relating to various playthings, contemporary players demonstrate the importance of digital culture and social media to the inherently material culture of traditional toys. In digital realms, by documenting and showcasing their inventiveness and playful interactions with toys, players come to contribute to play knowledge - information on user experiences and player cultures. Furthermore, once communicated online, various toy projects invite new players to acquire toys, get involved in nomimetic forms of play and start to build their own skills around the toys. This means that toys are not only used for pleasure in unproductive ways by solitary players i.e. as for the use of parasocial motivations or decoration, but socially shared and socially played objects: tools for learning which enhance creativity, expanding the toy activity also into e.g. various crafts: customizing, displaying and photographing. In this way, the study widens understandings of toy play by pointing out adults as active, productive and social players, whose play behavior as presented particularly on social media as a playful learning environment, results in skill-building, innovative forms of self-expression and tutoring others to play.

Creative and playful digital media practices in the context of freestyle skiing

Marjaana Kangas, Olli Vesterinen
University of Helsinki, Helsinki, Finland

The aim of this case study is to explore young athletes' digital media practices in the context of freestyle skiing. Freestyle skiing is creative in nature (Numminen & Särmö, 2013); the idea is to make tricks in slopes and urban environments. The freestyle skiers are also active media producers and consumers. They post pictures and videos of the sport to various social media sites, like Instagram,

Twitter and Vimeo. As Jones (2011), based on his studies on skateboarders, has argued, digital media can promote athletes' engagement in the sport and can build a sense of belonging with their "crews".

In this research digital media practices are studied through the lenses of a freestyle skier, Martin. First, we are interested in which way agentive identity appears sport-related digital media practices. By this we mean the extent of digital media presentations and the social network they express. Second, we are interested in what the sport-related digital media practices tell us about the nature of learning and identity construction in on- and offline environments.

As the socio-culturally oriented studies stress, learning is not just acquiring knowledge or a set of skills, but is also living out agentive identities (Hull & Katz, 2006). Identity is collectively shaped and constructed in social settings; it is simultaneously an individual, social and cultural phenomenon (Holland et al., 1998; Nasir & Cooks, 2009; Sfard & Prusak, 2005). Open-ended digital media environments provide platforms for creating, editing and sharing own content thus shaping identities and producing a sense of individual and collective agency (Dieterle & Clarke, 2009).

In this paper, a freestyle skier, Martin's sport-related digital media practices are examined and analyzed. The data include the collection of all public digital media presentations from the following social media sites from August 2014 to February 2015: Vimeo, Instagram and Newschoolers.com. Narrative analysis was applied to examine the data that were re-structured in the form of narratives such that one entry, such as a video, with related other content and comments formed one narrative episode.

Preliminary results show that "the Homies", an affinity a group of athletes' have named themselves, are engaged in on- and offline sport-related cultures that seem to be blurred. The sport-related digital media practices express much creativity and playfulness such as the sport itself does. In addition, digital media is a resource for learning, being an essential network for boosting each other in development as a skier. The agentive identity seems to be grounded on encouragement and group cohesion. Without the group you could not be "you", because without the group you would not have "teachers" or the audience.

SESSION: Media and Code Literacies

How parents cope with media literacy: Good Practice and creative ideas from Switzerland

Eveline Hipeli
Zurich University of Teacher Education, Zurich, Switzerland

Nowadays children grow up in households with rich media equipment. Primary school children having their own smartphones are no seldom phenomenon anymore (Willemse et al. 2014) and the longer the more parents are complaining about not being able to keep up with all the new media influences and developments (Mendoza 2009). Still, most parents are very aware of the fact, that they play an important role in the process of enhancing their children's capabilities to become media literate individuals.

When it comes to learning those skills, there are basically three main agents of socialisation: parents, teachers and peers (Hurrelmann 2006). While young children spend most of their time still at home and with their core family, parents remain the most important source for media advice. They set limits and act as gatekeepers selecting media content. Older children are likely to receive media literacy advice also at school and from their peers (Süss 2003).

Many parents are rather unsure whether they're capable of giving a guidance good enough to their children. Hearing about «Medienkompetenz» (the German term for media literacy) and its requirements (Baacke 1997) mostly makes them even more insecure. They express their doubts of not being "technically skilled enough" to be able to help their children properly (mpfs FIM 2011). This kind of concern is widely spread, even though media literacy means so much more than just being able to handle a device.

In order to find out, what kind of strategies parents actually have developed with media in their households, a qualitative non-representative field study was carried out in 2011. 52 parents from different areas of Switzerland (with different socioeconomic status and age) described [1], what media strategies and rules worked best in their families. These "good practice" examples were then compared to media pedagogical guidelines. Among the interviewed parents were 10 experts (media scientists and -pedagogists). It turned out that expert-parents used less time limits than layman-parents did. Expert-parents tended to regulate their children's media usage more by controlling the content and they emphasized the importance of talking with their children about media spontaneously in everyday situations. Layman-parents relied more often on technical solutions (like filter software) and seemed overall more insecure about the effects of digital media on their children.

The results of the field study was a guidebook that offers the possibility to look at the wide range of good practice Swiss parents have developed. In my paper I would first illustrate a selection of good practice examples and subsequently describe the differences between the media literacy strategies of layman-parents and expert-parents more thoroughly.

[1] 15 parents got a questionnaire, 35 parents were interviewed

Behind the concepts of multiliteracy and media literacy in the renewed Finnish core curriculum: A systematic literature review on peer-reviewed research

Lauri Palsa[1,2], Heli Ruokamo[2]
[1]National audiovisual institute, Helsinki, Finland, [2]University of Lapland, Rovaniemi, Finland

Finnish basic education is heading towards change and development when the new national core curriculum is commissioned in the year 2016. The renewed core curriculum was completed and published in the end of the 2014. From the perspective of media education one important notion in

the curriculum are the new transversal competences, which are dealt with in several subjects. One of these competences is called multiliteracy. “Multiliteracy means the skills to interpret, to produce and to evaluate different kind of texts. These skills help students to understand diverse cultural forms of communication and to build their identity.” (POPS 2014, 20). According to the curriculum, multiliteracy can be promoted by media education. The definition of multiliteracy is closely related to the concept of media literacy, which focuses on the skills necessary in contemporary media culture. One of the aims of media education is to promote media literacy. In terms of conceptual clarity, this raises a research questions concerning the relationship between the scientific terms: How the concepts of multiliteracy and media literacy are related to each other? How are these concepts defined in recent research literature and what kind of knowledge is constructed in the research literature?

The aim of the study is to produce new information and construct new knowledge by providing an overview of the research on media literacy and multiliteracy. The article contributes to the work of scholars, planners, practitioners and policy makers in the field of education also by presenting new definitions of the concepts.

This article focuses on the relationship between the concepts by reporting the results of a systematic literature review on the research on media literacy and multiliteracy. The data is collected on research literature published in international peer-reviewed academic journals between the years 2010 and 2015. Primary studies are searched and collected using various research databases and the data is analyzed by means of content analysis. While contributions with media literacy and multiliteracy can be found in a wide variety of journals and other documents, for this review, we focused on articles to produce a comparative overview of the research literature focusing on the concepts of media literacy and multiliteracy.

Furthermore, the paper discusses the state and future visions of media education in the context of Finnish basic education from the scientific and practical point of views of media literacy and multiliteracy. The paper presents future opportunities for further research and practical use focusing on media literacy and multiliteracy.

Keywords: media education, media literacy, multiliteracy, systematic literature review

Broadening code literacy education through metaphors of code

Tomi Dufva[1], Mikko Dufva[2]
[1]Aalto University, School of Arts, Design and Architecture, Helsinki, Finland, [2]VTT Technical Research Centre of Finland, Foresight, Organisation dynamics and systemic change team, Tampere, Finland

Information and communication technology (ICT) has become embedded into our daily lives. This is also reflected in education, and there have been calls to improve the teaching of the principles of ICT technology in order to teach programming already on the level of primary education. However, the understanding of programming in the field of education is ambiguous often focusing only on technical aspects such as teaching a specific coding language. However, there are also important societal, political and artistic aspects of programming that are often ignored when discussing the future of education. In this article, we broaden and structure the discussion around from teaching programming to teaching code literacy by applying different metaphors. Drawing on existing literature, we identify nine metaphors: machine, organism, brain, flux and transformation, culture, political system, psychic prison, instrument of domination and carnival. We describe their epistemological background and use them to study the concept of code. The metaphors illustrate different contexts and help to understand the discussions related to developments in ICT such as open source community, democratization of information and the internet of things. They also help to identify the dominant view and the tensions between the views. We argue that understanding the different contexts and views of code supports in planning a robust and future-proof education on

code literacy. On a methodological level, we propose that the systematic use of metaphors described in this paper would be a useful tool for futures research.

SESSION: Empowerment through Media

Towards Multiliteracies among the Young in Transitions of Learning

Sirkku Kotilainen, Mari Pienimäki
University of Tampere, Tampere, Finland

Literacies and learning are the keys for proceeding and social change in one's life. Action research "From Marginal to Mainstream through Multiliteracies" is focusing on transitions of youth learning, practically like a shift in levels of education or from education to work. A sift in learning is considered from the perspective of language or multimodal literacies. Special effort will be put in developing integrated pedagogies in arts and media with public orientation. For example, the young are encouraged to publish their work in social media together with more local mainstream media like newspapers and magazines online for having their say and create cross-generational discussion.

Research activities take place during 2015-2017 together with youngsters, researchers, artists, youth workers and public media in five locations of Finland, starting from Tampere and Vantaa. Moreover, youngsters are involved as co-researchers in several ways during the project.

The proposed paper presentation will focus on the design of the art-based media education with public orientation supporting multiliteracies of the young. The paper will describe and reflect the practices of the study from the perspective of critical media pedagogies as collaborative composition of arts and public media.

Research is funded by Kone Foundation and, collaborative media partners are Finnish Newspapers Association and Finnish Periodicals Publicers' Association (FPPA).

Journalist studies for the indigenous Sámi - From preparatory courses to worldwide Indigenous Master studies

Torkel Rasmussen
Sámi University College, Kautokeino, Norway

At the same time as Sámi media was expanding during the 1990s a lack of educated Sámi journalists was recognized in the Sámi society. This led to the establishment of journalism preparatory courses at the Sámi University College situated in Guovdageaidnu/Kautokeino Norway in the middle of the 1990s. After one year of preparatory studies the students continued to study journalism at Universities in their countries of residence: Norway, Sweden and Finland. This was not a success and in 2000 this education was replaced by two years of candidate studies of journalism at the Sámi University College.

During the ten first year of the 21st century three groups of Journalist students were educated with a total amount of 40 graduated students. For the small Sámi media environment, this is a huge number. The third group was also offered a third year of education making the journalism studies into a bachelor program, which now is established as a permanent study program. The education in this program is carried out mainly in the indigenous Sámi language and the students have been trained to function as Journalists in the Sámi society with special skills to work in Sámi media and with Sámi language as their working language.

In 2013, the Sámi University College got permission to establish an international master of indigenous journalism which use both Sámi and English as the language of instruction and examines. The studies started in January 2015 with 14 students. In this group were both Sámi students and international students from different countries and it must be added also the Sámi students are from several countries including Russia.

The article's writer, himself a Sámi and speaker of the North-Sámi language, has been working at the Sámi journalist studies since 2001. He will in his presentation focus on the development of these studies, the need of the Sámi society for excellent journalism as a keystone of Sámi democracy development and the content and quality of both the Bachelor of Sámi journalism studies and the Master of Indigenous journalism.

Mapping the obstacles and possibilities of new media technology and the needs of media education for refugee women in Finland

Mari Maasilta
University of Lapland, Rovaniemi, Finland

The use of new technology has increased in the crisis areas of eastern Africa during the last decades. This paper explores the role of mobile phones and other new media technology in everyday life of African refugee women during the exile journey. On the basis of this analysis, I aim to specify the needs of media education for this population in Finland. I am interested in economic and social empowering potential of new technology in constructing new life in a new environment but also preserving links and contacts with the past. I explore the contexts and purposes in which the women actually use the new technology in exile: Which are the obstacles of using new technologies and which opportunities do new technologies offer for refugee women? Can new technologies contribute to income generating and labor and to reducing poverty caused by the exile and loss of property? Does the new technology have a role in social and psychological wellbeing and healing of refugee women?

The analysis is based on ethnographic fieldwork and interviews conducted among urban refugees in Kampala and in refugee camps in Uganda and Rwanda, and in interviews conducted with Congolese refugee women in Finland in 2010-2011. In the analysis, the exile journey is divided into three stages: escape from home, temporary stay in refugee camps or in neighboring countries and permanent settlement in a new country, but the main focus of media education is in the permanent settlement in Finland. Finland is one of the countries, which has received Rwandan and Congolese refugees from East African refugee camps and settled them permanently in Finland as quota refugees since 2008. Finland also has a remarkable number of Somalian refugee women who have arrived in Finland since the 1990s as asylum seekers or on the basis of the Family Reunification Programme.

SESSION: Media and ICT in Teaching and Learning

Developing a TPACK measurement instrument for 21st century pre-service teachers

Teemu Valtonen, Erkko Sointu, Kati Mäkitalo-Siegl
University of Eastern Finland, Joensuu, Finland

Future skills, so-called 21st century skills, emphasize collaboration, creativity, critical thinking, problem-solving and especially ICT skills (Voogt & Roblin, 2012). Teachers have to be able to use various pedagogical approaches and ICT in order to support the development of their students' 21st century skills (Voogt & Roblin, 2012). These skills, particularly ICT skills, pose challenges for teachers and teacher education. This paper focuses on developing an instrument for measuring pre-service teachers' knowledge related to ICT in the context of 21st century skills.

Technological Pedagogical Content Knowledge (TPACK; Mishra & Kohler, 2006) was used as a theoretical framework for designing the instrument. While the TPACK framework is actively used, the instruments used to measure it have proven challenging. This paper outlines the results of the development process of the TPACK-21 instrument. A new assessment instrument was compiled and tested on pre-service teachers in Study1 (N=94). Based on these results, the instrument was further developed and tested in Study2 (N=244). The data of both studies were analyzed using multiple quantitative methods in order to evaluate psychometric properties of the instruments. Results provide an insight into the challenges of the development process itself and also suggest new solutions to overcome these difficulties.

Keywords: TPACK, 21st century skills, measurement instrument

Can Learning Analytics Help to Understand the Learning Process?

Jari Multisilta
Tampere University of Technology, Pori, Finland

In online learning, many learning management systems (LMS) and Massive Online Open Courses (MOOC) collect log data from the users. The field studying the use of the educational data is sometimes called as Educational Data Mining (EDM) or Learning Analytics (LA). In this paper, we review the latest research on the merging field of EDM and LA and discuss the usefulness of EDM and LA in evaluating the learning process. It seems that LA can be used to evaluate the learning outcomes but it provides only very superficial information of the learning process. We claim that there is a great need to utilize learning related user data so that it provides support to understand the learning process in much deeper way. To be able to do so, learning data should be collected and analyzed in relation to the content, and the content needs to be structured in pedagogically meaningful way.

Learning analytics collect and analyze the traces the students leave to the learning environment. The aim is to find correlations between student activities and learning outcomes.

The data collection can be divided to two categories: 1) generic interaction data collection, and 2) educational data collection from specific learning activities. The difference between these two categories is that the educational data collection from specific learning activities is related to the learning content and the content can be utilized in analyzing the collected data. In both cases, the quality of the data dictates the usefulness of the data.

Generic data collection includes web navigation data that are collected by the web analytics tools such as Google Analytics. Examples of generic interaction data are page hits, the number of visitors to a page and time spent at the page.

Specific data collection is based on the content and the activities the user can do at the learning environment. Examples of specific data collection include events (for example answers to a multiple choice question or a selection of a specific menu choice) that have a meaning in the content and the context. For example, if in a certain exercise the learner selects a menu option that represents a wrong answer, the generic data collection could only provide us information of the frequencies of responses of the menu options. However, the specific data collection could provide us much deeper understanding of the responses if we know that the first menu option is a wrong answer because the answer represents a misunderstanding of the concept the exercise is about.

Specific data collection has to be designed as a part of the content. It is difficult to transfer to other content, and the data from different systems are not easy to compare.

Students' perception of a personal and mobile learning environment in higher education

Hanna Vuojärvi
University of Lapland, Rovaniemi, Finland

University students carry personal mobile technological devices, such as laptops or smartphones, with them every day. Through them, everyday worlds can be transformed into spaces for learning. Hence, universities' focus as educational organizers should shift from arranging environments around a single course use, or providing and allowing only one system for all, to coordinating connections between the user and services, and, most importantly, providing the possibility for learners to organize and connect the information and knowledge within contexts as they see fit, and choose the information and tools to situate within them. The point is that it is not necessary to create, design, or purchase yet another system, but to scaffold the creation of these effective learner-generated contexts.

Technology alone does not produce better learning; rather, its impact depends on several variables that in this case have been approached in six individual studies. This paper sums up the results from these studies and by using activity theory (AT) as a theoretical framework, aims to investigate how the concept of personal and mobile learning environments (PMLEs) can be conceptualized, and how their creation could best be supported in higher education, according to university students. A PMLE is here understood as a wider concept that combines tools, individuals, communities, cultures and history-everything that surrounds a student and all that he or she carries with him or her, both physical objects and invisible meanings.

The six studies focused on (1) students' expectations of laptop and WLAN use in learning processes; (2) the domestication process students went through with their laptops at the beginning of their studies; (3) students' perceptions of data security in collaborative learning processes on a wireless campus; (4) the role of laptops in CSCL processes; (5) students' experiences of the flexibility and effectiveness afforded by laptops and WLANs in university studies; and finally, (6) the perceptions of students with families with regard to laptop and WLAN use in learning.

The studies used four methodological approaches including statistical methodologies, grounded theory, design-based research, and mixed methods. Both qualitative and quantitative data were

collected. To sum up, PMLEs provide students a secure and private environment for learning processes, in which any kind of mobile ICTs can be used. They engage students in their learning processes and promote the structuring of collaborative activities, and promote the continuous and cumulative intertwining of contexts, times and places, contents, interactions, and experiences in the learning process. Flexibility in learning is a central feature of a PMLE, which responds to students' needs to intertwine studies seamlessly with their personal lives, other commitments and everyday activities. This study strengthens the view of PMLEs as conceptual tools, moving away from a device- or system-oriented understanding of learning environments.

SESSION: Digital Story Telling

Young storytellers' pedagogical digital stories: what are they like?

Marianna Vivitsou, Johanna Penttilä, Veera Kallunki
CICERO Learning Network, University of Helsinki, Helsinki, Finland

Social networking is a source of excitement and engagement for young people's learning nowadays. As a result, social networks seem to claim their own part in contemporary school pedagogy.

Social networks are relations among people who judge other network members to be important or relevant to them in some way. Social networks are articulated on social network sites through linking and viewing profiles. Social network sites are websites where participants construct a public or semi-public profile within the system and articulate their relationship to other users in a way that is visible to anyone who can access their profile. When young people use social networks for pedagogical purposes they tell stories of learning experiences by publishing image-based or textual content and participating in image or text-based discussions in the form of comments. As they use digital technologies to make and share their story, this is a digital story for pedagogical purposes or pedagogical digital story.

The story then becomes part of the profile of the young storyteller and, thus, an essential component of networking for learning, upon which the communication of ideas, views and emotions is built. Through profile updates, sharing personal information and commenting, therefore, the network becomes the space where young storytellers grow, develop and learn.

One research interest that emerges in this situation concerns the digital stories themselves. This interest shapes the main research questions of the study asking 'In what ways do young people view their digital stories as part of the learning experience?' and 'what elements of digital storytelling enhance peer learning on the network?'

This study aims to present findings resulting from the analysis of student questionnaires and interviews where the participating young people evaluate the experience of learning in the field of natural and human sciences by making and sharing digital stories on a pedagogical social network. This study also discusses and analyzes comments, discussions and videos in the Mobile Video Experience (MoViE), the web-based platform where young people upload and share their digital stories. Overall, the data draw from insight gained in two projects (Finnable 2020 and MoViE-STEM) that seek to explore the ways mobile and connective technologies are integrated into the classroom. Both have digital storytelling as background pedagogical methodology.

Overall, it seems that students appreciate both cognitive and social aspects of the digital storytelling experience and, thus, attribute high values to developing knowledge related to the topic of their own and peers' digital stories, digital literacies and problem solving. In addition, cultural aspects play a role, as students show interest in the ways their peers in the home country and in other countries learn at school, how they use technology and what their daily lives look like.

Media-making as a superfood for learning in and out of classrooms: identity shifts for learners and teachers

Eric Hamilton, Traci Garff, Antha Holt, Hiroo Kato, Janice Samuels, Sandra Sarmonpal, Helen Teague, Kim Welch
Pepperdine University, Malibu, USA

This paper, which addresses teacher and learner self-concept and identify, is a companion to a paper addressing learning, especially in mathematics, and reporting on the same research data. It takes as its entrée the excitement, energy and creative power that new media tools have awakened in both precollege and undergraduate education. It focuses on one aspect of the emerging ubiquity of media tools, namely the enablement of students and teachers to generate video and game media to convey subject matter content. The paper reports on research that primarily involves middle and secondary mathematics learning, though the scope of findings may be generalized, at least for exploratory purposes, to questions in other disciplinary domains.

This research, supported by various grants from the US National Science Foundation, and carried out with collaboration by partners in Finland, has followed a lineage of the study of teacher imagination and creativity in producing digital videos; followed by expanding the study to incorporate the involvement of students as co-equal collaborators with teachers.

Perhaps the most salient finding in both exploratory studies is the repeated evidence of identity shifts that teachers and students experience as they assimilate the role of media makers. Prototypes of these identity shifts are complex and exciting. For teachers, they entail a kind of interior permission to become generators or agents of curriculum materials in ways that, at least in the context of various countries in which the model has been tested, have not been open to them. Media-making blends their personal pedagogical skills with their disciplinary knowledge and nurtures a sense of media fluency and imagination and intellectual responsibility to produce coherent mathematical representations and visualizations that last beyond a classroom experience.

For students, the identify shifts can be even more complex and interesting. When students are drawn into the process, not simply of making videos, but producing media with the intent to make mathematical concepts and structures transparent and understandable to peers, their understandings of mathematics, of their teachers, of their peers, and of themselves as doers of mathematics shifts significantly.

This talk will also review important constructs of established valued in learning science literature, including the power of generated representations, visualization, self-explanation, question asking, self-regulation, and efforts to define broad sets of principles for learning environment design.

These dynamics and principles are healthful and contribute to growth of both teachers and students. The dynamics will be illustrated with summaries of interviews with approximately 200 students and teachers and video reports from those subjects, taken from schools in the US, Kenya, Uganda, Ghana and Namibia.

The paper also delves briefly into theories specific to mathematical cognition, most notably of Richard Lesh and Guershon Harel to provide additional conceptual foundation.

The notion of a "superfood" originates in the fact that some foods furnish a particularly wide spectrum of nutritional value. This paper on identify shifts, and its companion, on learning, argues that media-making activities such as creating video lessons, can have a unique, superfood-like

effect on personal growth and learning. The value and limitations of this metaphor will be discussed.

An odd journey of discovery in education media research

Eric Hamilton, Traci Garff, Antha Holt, Hiroo Kato, Janice Samuels, Sandra Sarmonpal, Helen Teague, Kim Welch
Pepperdine University, Malibu, USA

This is a story-telling paper, but one in which the audience is invited for comment and to help shape the next steps of the story. The paper takes advantage of the informal and conversational nature of the MEC gathering. Accidental discoveries, first about how teachers, and then how teacher and student collaboration teams, led to a line of inquiry into teacher professional development, learner engagement, and ways to foster new dynamics in classroom settings, dynamics consistent with patterns that can reasonably be expected to emerge in future learning environments.

With video and game media-making - a school-based, curriculum-centric, digital analog to the ascendant maker movement where most activities take place outside of formal school settings - as the epicenter, the paper traces both strategic and tactical growth in efforts to lay the groundwork for a movement that now encompasses an ensemble of technologies, including collaborative "what you see is what I see" workspaces, digital ink systems, natural language processing and avatar agents, and mobile devices.

As the conceptual and theory-base structure of the research has expanded, so has its partnership profile, to include formal school partnerships, the US-Finland Science across Virtual Institutes (SAVI) effort, and several universities and ministries of education in Sub-Saharan Africa.

This paper explicitly seeks substantive and informed critique and suggestion from MEC attendees, and, where possible, new partnerships.

SESSION: 3D, Virtual and Simulation-Based Learning

What mediates learning in nursing simulations?

Paula Poikela[1], Marianne Teräs[2]
[1]Lapland University of Applied Sciences, Rovaniemi, Finland, [2]University of Helsinki, Helsinki, Finland

Introduction

New technologies open up interesting potentials for developing professional and vocational expertise. We are not unfamiliar with simulation-based learning in nursing education because it has a long historical background. The healthcare sector has transformed simulations to suit their use; this has been done mostly in initial to acute medical and nursing care without much criticism. Current discussions involve how the soft values, protocols, and process should be taught to nursing students and in a clinical situation for experts. Teräs, Poikela & Lahtela (2013) suggested a new conceptualization called simulation-mediated learning. Conceptual bases are the sociocultural and the cultural-historical theories of learning. They define simulation-mediated learning as a social transformation process in which technological and other symbolic material tools are used. What is the difference between these two conceptualizations and how do they approach learning? Teräs et al. (2013) argued that linking learning to a method, in this case the simulation method, can narrow the concept of learning; however, they did not empirically test their conceptualization. In this article we empirically address the phenomenon by exploring two different data sets: a computer-based simulation program and a case-based program.

Research questions and methods

This study focused on exploring two types of nursing simulations. The research questions are: What do nursing students talk about their learning in two different simulations? What does mediate learning in two nursing simulations? This research is a qualitative study and use-content analysis.

Results

The nursing students talked about learning in simulations in a different way. They were satisfied with both types of simulations; they practiced their skills in the computer-based simulation program and they learned socialization, interaction, and teamwork in the case-based simulation. Learning was mediated by multiple issues, such as material instruments used during the simulation, patient cases, other students, and the facilitator. From the research viewpoint, the nursing students achieved different skills and utilized tacit knowledge.

Discussion

Nursing education seems to need different types of simulations. The choice is made by the facilitator, and she or he needs to clarify the aims of learning, what kinds of materials are used, what type of environment is most applicable, and the knowledge level of students. The simulation types are based on different pedagogical and theoretical foundations.

Concepts: Computer-based simulation learning, official terminal, VIRVE network, design-based research

A pedagogical model for simulation-based learning in healthcare

Tuulikki Keskitalo, Heli Ruokamo
University of Lapland, Rovaniemi, Finland

The aim of this study was to design a theoretically and empirically justified pedagogical model for a simulation-based learning environment (SBLE) in healthcare. Currently, simulation and virtual realities are a major focus in healthcare education. However, it is not well known when and how these learning environments should be applied.

We initially set multiple research tasks with the aim of answering the following research question: What kind of pedagogical model supports facilitation and students' meaningful learning in SBLEs? The study used design-based research (DBR) and case study approaches, which provided an opportunity to answer the multiple research questions as well as develop theory and practice. Altogether, the study involved 21 facilitators and 136 students. The data was collected using questionnaires and various qualitative data collection methods, including interviews, observations and field notes, learning diaries and video recordings. The data collected from the questionnaires were analyzed using statistical methods whereas the qualitative data were analyzed using a qualitative content analysis method.

The main result of this study is the pedagogical model. The pedagogical model is based on the socio-cultural theory of learning, characteristics of meaningful learning as well as previous pedagogical models. Socio-cultural theory places learning in a wider socio-cultural context whereas meaningful learning characteristics help to bring to the forefront issues that are known to enhance learning. Based on the previous pedagogical models and studies undertaken as part of this research, the pedagogical model consists of six distinct phases, namely pre-activities, introduction, simulator and scenario briefing, scenarios, debriefing and post-activities. In addition to the pedagogical model, this study also yielded information on the current pedagogical use of simulations. The present study ascertains that teaching is seen as entailing the facilitation of students' learning and is viewed mostly as a student-centered activity in SBLEs. However, there are differing viewpoints that can cause friction during the instructional process. The pedagogical use of SBLEs also sets various requirements for healthcare educators. Students, especially adult students, had high expectations of simulation-based learning. Furthermore, simulation-based learning can be viewed as meaningful, although special attention should be paid to the goal-oriented, self-directed and individual characteristics of meaningful learning.

With the help of the pedagogical model, healthcare education practitioners can make informed choices with regard to simulation-based education. Moreover, it can also be used to identify gaps that need to be reconsidered and developed in simulation-based education. In other words, the pedagogical model ensures that a more holistic and meaningful approach to teaching and learning is adopted. However, it requires evidence and further development.

SESSION: Internet and Social Media in Everyday Life

Sexting, body, identity and images of the self on social media sites among adolescents. From research to action through Peer&Media Education

Alessandra Carenzio, Simona Ferrari, Lorenzo De Cani, Sara Lo Jacono, Pier Cesare Rivoltella
Catholic University, Milan, Italy

In recent years social media have become a mirror for many adolescents: young people experiment themselves online, testing limits and possibilities, and they build their identity day by day, creating a strong self-perception and communicating their body to the "public" connected (boyd, 2014). The consequences of this new performance of the self are important: sexting (Temple, 2012 and 2014), self-exposure and self-objectification (Fox, Rooney, 2015), identity manipulation and risky behaviors.

This paper intends to reach two parallel goals.

The first is to discuss the results of the research Image.ME, run by Cremit, which studied the use of social network sites, their impact on relationship and identity, the presence and incidence of those risky behaviors among adolescents. The questionnaires have been delivered in 2013-2014 to 889 students aged 14-18.

The results show some ideas:

- Facebook is still the most popular social network (90% has a profile, followed by Instagram with 50%, Ask.Fm with 33%, Twitter with 32% and Tumblr with 14%);
- Social media are a very dense environment to relate, create connection and socialize with other people (see also Eu Kids Online, 2014);
- Picture and images are the strongest tool to represent identity and states of mind among adolescents;
- Sexting is known and experienced, especially to have fun (and not to harm or harass friends);
- Adults are not included when something bad happens online or when sex-related contents are delivered or received.

The second is to share a new perspective for educators and researchers who work in the field of media education, named Peer&Media Education (Ottolini, Rivoltella, 2014). This model, developed to reach young people and foster their "awareness" and health, combines two different branches of education: Media Education, as we know it, and Peer Education, developed to prevent addictions and unhealthy behaviours, like alcohol and drugs abuse.

The result is a new methodological framework, fostering the responsible use of social media and digital tools, but also helping young people to keep safe and live healthy. This means to imagine a new field of intervention for Media Education outside the school system, reaching informal environments where youngsters usually live and interact, exchanging and building up culture.

Media Education tools, such as media use analysis, media deconstruction and media production (e.g. video, digital storytelling) combine with Peer Education techniques and group analysis. The result is strong and affordable, both for educators and for young people, who are definitely the protagonists of education as active prosumers.

Digital competences and agency of older people living in rural villages of Finnish Lapland

Päivi Rasi[1], Arja Kilpeläinen[2]
[1]University of Lapland, Faculty of Education, Centre for Media Pedagogy, Rovaniemi, Finland,
[2]University of Lapland, Faculty of Social Sciences, Rovaniemi, Finland

This paper presents a study focusing on the digital competences and agency of Finnish older people who live in remote rural villages of Finnish Lapland. In Finland, people in the 64-89 age group use the Internet clearly less that younger age groups. Furthermore, 25% of people in the age group 64-75 report having never used the Internet. Older people's non-use or low-use of the Internet has raised concerns about their possible risks for being excluded from services related to education, well-being, health, social security, welfare, communication, and participation in the digitalized society. Accordingly, national European strategies have prioritized the need to promote older people's access to the Internet and the need to better understand their specific needs in terms of, for example, digital competence -related training and support services.

The existing literature on older people's use of computers presents a very optimistic picture, and the use of information and communication technologies in general has been considered as an opportunity to improve older people's living conditions, strengthen social community, and ease everyday life in rural areas. On the other hand, older people's non-use of the Internet has been explained by individual deficiencies such as physical limitations and lack of sufficient skills, information and support.

In this study we take a more holistic approach to older people's digital competences and explore them from the viewpoint of the theory of modalities of agency (Jyrkämä 2008). This theory acknowledges that the behavior of humans is the result of dynamic interaction of the modalities of agency: knowing how to, being able to, having to, having the opportunity to, wanting to, and feeling. In the case of older people's Internet (non)use, digital competences (Ferrari 2013) are only one modality of agency (i.e., knowing how to, being able to) that explains whether and how older people use the Internet. However, for a more holistic understanding, we need to find out how all the modalities interact with each other.

Our objective in this study is to explore older people's digital competence from the viewpoint of the theory of modalities of agency. The following research questions have been outlined:

1. What is the meaning of the Internet for the respondents?
2. Are there factors that limit or complicate their Internet use?
3. How do the respondents assess their digital competencies and the need to enhance them?

To answer the research questions, we use research data gathered through three focus group interviews with older people living in small rural villages of Finnish Lapland. We will analyze the data through the theory of the modalities of agency (Jyrkämä 2008). In our presentation, we will present our research design and preliminary findings of the focus group interviews.

NOTES