

Core Research Area: *Connection between Formal and Informal Learning*

Research project proposals produced by the experts of the 4th STELLAR Delphi round

135. Connection between Formal and Informal Learning

Group: Researcher

Project title

Intersections between print-based and digital literacies in and out of school

Project description

what forms of digital literacy (multimodal literacy, multiliteracies) do students need to be successful in school and in out of school contexts?

how do students learn these multiliteracies?

In what ways might multiliteracies be regarded as literacies?

How does/how can knowledge about multiliteracies support the development of print -based literacies?

How do students develop critical and creative capacities with digital literacies

How might these critical and creative capacities be incorporated into and recognised by school structures?

Project partners

Education systems

Cultural industries

new media companies

Project justification

Societal well being, contemporary literacies and the development of critical, reflective and creative perspectives and understandings, curriculum reform, integration of traditionally valued cultural forms with new media

136 Connection between Formal and Informal Learning

Group: Researcher

Project title

Bridging the Gap: the use of evidence and argument in and out of the classroom

Project description

This project would aim to explore the elements which support children's learning about the use of evidence and argument in informal contexts, and to develop ways in which the strengths of informal learning could be translated into the learning of statistics within the school curriculum through creative pedagogic task design which exploits technology.

Research questions:

What are the characteristics of individual and collaborative learning in informal contexts (both those which are and are not technology related)?

In particular how is learning shaped by the purposes to which knowledge and understanding are put?

How can technology enable these characteristics be emulated within classroom contexts?

Project partners

Prof. Dave Pratt, University of London Institute of Education

Dr Katie Makar, University of Queensland, Australia

Dr Dani Ben-Zvi, University of Haifa, Israel

Dr Carlos Monteiro, Federal University of Pernambuco, Brazil

Project justification

The use of statistical data, and arguments based in the use of statistical evidence, are increasingly prevalent in modern society, in which technology supports access to huge quantities of 'raw' and

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



'analysed' data. The ability to reason critically on the basis of statistical and other forms of evidence is a key requirement for individuals as citizens, consumers and policy-makers at any level. The teaching of statistical reasoning at school level is often disconnected from the experience of children in their everyday lives, and particularly from the ways in which they access and consume both 'raw' data, and media content which is (however tentatively) based on the use of evidence. A clearer understanding of how children interact with, and learn about the use of evidence and argument could support the development of pedagogic approaches which exploit and extend informal learning within the formal curriculum.

137 Connection between Formal and Informal Learning

Group: Researcher

Project title

An educational ecology that supports technology-facilitated seamless learning

Project description

1. How do we construct theories, learning environments and learning design guidelines that facilitate nurturing of seamless learners (Chan et al. 2006) supported by technology?
2. How do we nurture an educational ecology (national policies, educational institutions, society, communities, families, individual learners) that embraces such a learning model?

Project partners

-

Project justification

-

138 Connection between Formal and Informal Learning

Group: Researcher

Project title

Communicating mathematics through dynamic, visual technologies

Project description

How can nonlinear, nonsequential, nonalphabetic modes of communication (visual images, gestures, etc.) be used to express mathematically sophisticated ideas? What happens to mathematics under this shift?

Project partners

-

Project justification

Current modes of communicating mathematics are outdated, based on very old technologies, and contribute unnecessarily to the gate-keeper role of mathematics. Digital technologies have changed mathematics, and they will change mathematicians. Educational research can drive this change in ways that better support an equitable and educated society.

139. Connection between Formal and Informal Learning

Group: Researcher

Project title

BRIDGES

Project description

Mobile devices and other technological innovations have changed the basic conditions for human learning and introduced new practices to everyday life and, to a lesser extent, formal (schools) and informal (museums) learning institutions. The resources that young people use for learning and constructing knowledge can be characterized by mobility and multiplicity - ubiquitous access to multiple texts, resources and representations. This means that in today's society, schools are not the only privileged source of information; young people participate and learn in a broad range of contexts and settings, e.g., play, computer games, museums, home. As participants move between activities, they develop specific skills for each activity, as well as some generic (general) skills.

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



This project explores how participants translate and transform knowledge between contexts, with a particular focus on technologies that support learning across school, museum and home settings. One of the aims of this research is to inform reforms in teacher education.

Project partners

Ingeborg Krange, InterMedia, University of Oslo
Roger Säljö, University of Gothenberg (LinCS)
Mike Sharples, Learning Sciences Research Institute, Uni. of Nottingham, United Kingdom
Peter Reimann, University of Sydney
Kirsten Drotner, DREAM/University of Southern Denmark
Karen Knutson, University of Pittsburgh

Project justification

The education sector is facing demanding challenges in coming years. Studies exploring future development of education and technology suggest a continuing shift towards a more diverse and complex learning landscape where learning takes place across a wide range of sites and institutions. This development is due in part to mobile devices and socio-technical networks, which are an increasingly central means of gaining, sharing and generating knowledge across institutional boundaries. Present reform initiatives surrounding teaching and learning are not sufficiently preparing student teachers to meet these changes, as teacher education programs are based on training and coaching models that focus mainly on developing a repertoire of classroom practices. One means of bridging formal and informal learning settings is the design and use of new technologies and media to enhance teaching and learning. BRIDGES addresses these societal challenges in the education sector through interdisciplinary collaboration in a project that is organized with research experts from the fields of TEL, teacher education, and museum learning.

140. Connection between Formal and Informal Learning

Group: Researcher

Project title

Linking knowledge management and e-learning

Project description

MEMORAe approach: linking web 2.0 technologies, web semantic standard and knowledge engineering

Project partners

-

Project justification

-

141. Connection between Formal and Informal Learning

Group: Researcher

Project title

Users' models of complex software systems

Project description

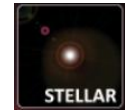
Users can be very good at understanding a system, able to predict its responses and capable of operating it practically to perform their tasks. However, system developers typically reason using different concepts, metaphors and organize their systems along dimensions that are invisible to the final users. Investigation of the informal learning that goes on among users, and how they share their knowledge about a complex system (e.g. a complex electronic device, a computer game or even an entire industrial plant) would help developers to design more usable and "reasonable" systems. This study should also provide new metaphors for the developers.

Project partners

Computer Science, Engineering and Media-technology should be involved. Possibly local governmental institutions, that could provide access to interested groups of users, e.g. elderly or public-sector workers.

Project justification

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



Users need to be able to relate to the technological artefacts they work with. They should be able to take action, customize, exchange information with peers and in general make sense of the ever-increasing technology around them. The comparison with reading and writing is too weak, because with technology transforming continuously, it is more like constantly having to learn new languages.

142. Connection between Formal and Informal Learning

Group: Researcher

Project title

Opening up formal learning and connecting to one's personal environment (aka Facebook for lifelong learning)

Project description

Improvement of formal learning through PLE technology, i.e. platforms or tools which allow publishing and sharing as well as finding and re-using learning experiences.

Project partners

no concrete plans yet; but Facebook and other companies with adequate technology and/or data are interesting; plus research units focussing on developing educational technology

Project justification

provision of more joyful learning experiences in formal educational settings; unexpected success of social networking platforms like Facebook; technical feasibility due to new emerging technologies (mobile phones, apps, widgets, ...)

143. Connection between Formal and Informal Learning

Group: Researcher

Project title

Supporting Interest-Driven and Passion-Based Learning

Project description

how do provide support for the infinite number of different topics learners are interested create learning environments in which people WANT to learn rather than they HAVE to learn

Project partners

researchers from social computing, behavioral psychology
researchers interested in a deep understanding of intrinsic motivation
researchers from the creative practices

Project justification

societal: would create the foundation for the learning societies of the 21st century
technological: support learners in their OWN activities
scientific: requires fundamentally new assessment methods

144. Connection between Formal and Informal Learning

Group: Researcher

Project title

Introducing serious games in learning

Project description

There are lots of initiatives in this area by now. We need deep research on in which subjects/area introducing games is efficient, for which kind of learners, in which contexts? When the success factors are identified how to build (engineering issues) the serious games so that they are open to adaptation to local contexts (is it feasible, realistic or not?) The research will compare deep attempts in several subjects with different target populations - longitudinal study

Project partners

-

Project justification

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



Societal : we as researchers must bring scientific data about the efficiency factors of these fashionable new environments

Technological : Which architectures for mixing game engines and pedagogical engines

Scientific : Interesting challenges in computer science for building those environments, education sciences better understand what enhances the learning processes

145. Connection between Formal and Informal Learning

Group: Researcher

Project title

e-Portfolio system

Project description

relationship and representation of formal and informal learning

representation of other learning experiences

mapping of learning experience and learning objectives

etc

Project partners

academic institutions

students

local education authority

Project justification

an interoperable e-portfolio system is desired to keep track of the personal development history from various institutions and other learning experience and may serve various purposes; employers may also use this as a tool for human resource management.

146. Connection between Formal and Informal Learning

Group: Researcher

Project title

Connecting Children with Comprehension Deficits (CoCCoDe)

Project description

Children in the age range 7-11 develop as independent readers: they learn to correlate a story's events, to reconstruct the temporal flow of the story, to sum up the main points of a story.

However, many 7-11 year old children do not develop such skills and become poor comprehenders.

Many educators have to interact daily with children with such difficulties and do not have access to many resources when dealing with this challenging problem.

How can we help educators present their reading comprehension strategies in an effective and appealing manner to such children? Can TEL media help in this respect? If yes, which? What is their efficacy?

Project partners

L3S, UnivAQ, Psychology Faculties, Education Faculties, Schools

Project justification

The project targets, primarily, the following research areas: connection between formal and informal learning; improve practices of formal education; contextualized learning; personalization of learning.

The correlated educational and S&T impacts, as listed in the work programme, are: more conducive, highly motivating and flexible learning places, supporting better education, competency development and employability; increased empowerment of both learners and teachers through better adaptation to individual learning needs; significant contribution to the global competitiveness of European players in a consolidating market; leading edge research in Europe strengthened through restructuring of the technology-enhanced learning research landscape.

147. Connection between Formal and Informal Learning

Group: Researcher

Project title

Collective learning

Project description

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



Aim - to explore learning at the nexus of the individual and collective

This project will develop processes / tools which help individuals manage and realise their learning goals, supporting the contribution of new knowledge back to the collective.

What processes do individuals and groups use as they specify and attain their learning goals (challenge 1 - see 'justification')?

How do individuals and groups connect with other people and resources to achieve their learning goals (challenge 2- see 'justification')?

How do individuals and groups create and contribute new knowledge to the collective as they achieve their learning goals (challenge 2- see 'justification')?

Project partners

Depends on specific funding criteria :-)

Project justification

While facing the grand challenge of bringing together individual and collective learning, this project would address three main challenges in supporting knowledge work. First, individuals increasingly are expected to manage and self-regulate their own learning while accomplishing their work tasks. Learning is often a by-product of other (eg work) activities.

Second, problems faced by society and knowledge organisations are growing in complexity and the knowledge required to solve them is increasingly fragmented, necessitating cooperation within groups, networks and with the collective. Yet this cooperation is dependent on the processes of discovery, synthesis and sharing of knowledge which are complex in themselves.

Third, individuals routinely use a variety of technologies to support their work and learning. Yet, the current technological landscape is polarised between those tools which support knowledge work at an individual level and those which seek to facilitate group collaboration, rather than permitting the wide spectrum of interactions which individuals and teams engage in.

One way to overcome these challenges is to support users in finding and making sense of available knowledge through processes/tools designed to support managing learning goals.

148. Connection between Formal and Informal Learning

Group: Researcher

Project title

Enhancing the Curriculum with YouTube and Web-Based Video Resources

Project description

1. How are students and educators using online video for personal or classroom learning?
2. What is the impact of web-filtering on classroom use of free online video?
3. What is the impact of broadband availability on classroom use of online video?
4. Are educators producing their own video and why?
5. What are the best solutions for quality control when using free online video?

Project partners

WatchKnow.org

Project justification

The amount of online video is staggering. WatchKnow.org has collected thousands of clips that have been categorized and rated for quality. Yet, many of these are blocked from U.S. schools due to web-filtering policies. Broadband limitations also pose a barrier. This poses another tension: A huge amount of free online video and limited access in schools. We need to learn much more about what is available and how to make it accessible.

149. Connection between Formal and Informal Learning

Group: Researcher

Project title

Enabling seamless learning

Project description

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



How to bridge formal learning and informal learning from the learner perspective? i.e. connecting the formal learning that happens in the classroom to all aspects of informal learning, and vice versa, with the goal of engaging and enriching learning experiences

Project partners

EFPL, Vaxjo University, Nottingham University, Stanford University

Project justification

With the disconnect that learners perceive and feel between what they do in formal learning situations and what they do in informal learning situations, there is a lot of lost and miss opportunities for engaging and enriching learners. Research is needed to look at a host of issues from a systemic perspective (curriculum design, assessment practices, professional development, technology support, parental support, ...).

150. Connection between Formal and Informal Learning

Group: Researcher

Project title

Teacher Professional Development - Keeping Up With The Kids

Project description

How can we address the tension between senior teachers' knowledge of subject area, problem solving, evaluation of sources, etc. with their lack of sophistication with current technology. Corollary: How can we address the tension between students' comfort and sophistication with current technology but their serious deficiencies in the knowledge of subject area, problem solving, evaluation of sources, etc.

Project partners

Universities, Teacher Professional Associations

Project justification

We need to build upon teachers' strengths without making them feel inadequate because they don't understand the technology that their students use on a daily basis. The current digital native/digital immigrant debate will not go away in one generation - we just don't know what the next set of technological devices will be. We do know that whatever they are, the current digital natives will be as uncomfortable with them as digital immigrants are with current technology.

151. Connection between Formal and Informal Learning

Group: Researcher

Project title

Learning journeys

Project description

Exploring how learners can be supported and educated seamlessly across institutional boundaries; taking account of their own interests. and linking to local (physical) community resources/institutions and online resources as appropriate.

Project partners

For example, mixture of non-formal educational institutions (PRUs, Scouts, Youth clubs, etc) plus groups of local schools and online resource providers (OU, schoolofeverything, Ning networks etc etc)

Project justification

Educational: recognising that to develop different identities and capacities, learners need different support. Expertise in those different types of support lie in different, but existing insitutions and organisations.

Economic: expertise and resources exist within local and online communities; making best use of those resources decreases the expense of developing those resources within schools and utilising organisations often competing for funds.

Social: developing community interest in supporting formative education; moving responsibility for education beyond 'school-only' remit



152. Connection between Formal and Informal Learning

Group: Researcher

Project title

Strategies to Encourage Careers in Cybersecurity and IT

Project description

To what extent are CW K12/CyberROOTS modules, lessons and activities effective at increasing engagement at each grade band? In each content area? In the formal and informal setting?; Which components are most effective at increasing engagement?; How effective is CyberROOTS content in increasing persistence in other programs?; and How effective is CyberROOTS at increasing entry into the Cybersecurity field? She will use existing CW K12 instruments, the National Career Choice Survey, and instruments developed specifically for CW K12.

Project partners

CyberWatch (CW), a National Science Foundation funded Advanced Technology Education Center. a consortium over over 60 institutions (2 and 4 year) and K12 LEAS and numerous industry and government partners

Project justification

all 3

155. Connection between Formal and Informal Learning

Group: Researcher

Project title

Personal lifelong learning environment from cradle to grave

Project description

How to support personal lifelong learning resource management for people who change their living, learning and working settings throughout their lives in Europe.

People learn in various settings, formal, non-formal and informal, often through digital means and at least their learning results are often stored in digital formats. Every person should get a personal digital space where their learning and education activities are stored (official part), which they can use themselves for gathering and linking their learning resources (formal + informal learning), where they can show their learning results (portfolio, CV for job application), and which they can link with other applications in the way they like (data flow linking with Facebook, learning platforms, iGoogle etc). However, this ultimate iGoogle of lifelong learning would require i) European identity management system compatible with national systems ii) interoperability in data sharing between different educational organisations iii) data privacy and management regulations that would ensure correct sharing protocols with external applications.

Project partners

European Commission (data privacy, joint ID management)

National ministries of education

Research centres with expertise on data management

European standardisation bodies (CEN, ...)

Major software companies/developers responsible of learning platforms for schools, universities and workplaces (CISCO, Microsoft, Blackboard...)

Major software companies responsible of the most commonly used web applications (Google, Facebook, Microsoft MSN etc)

Project justification

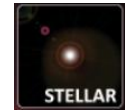
This would provide an equal personal lifelong learning space for every European citizen

-- providing continuous learning resource building for individuals

-- making possible to integrate certificate and learning outcomes achieved from different organisations or through informal learning into same standardised presentation form, therefore supporting mobility of workers and learners

-- providing a possibility to create personal sets of learning tools (from a school, work place etc) as needed through integrating them as modules into the open platform, but leaving the learning results for the individual after the course/studentship has ended (currently user accounts to learning platforms)

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



etc. are closed after course/degree has ended, and all the notes and the personal environment created is lost).

153. Connection between Formal and Informal Learning

Group: Researcher

Project title

Orchestrating formal and informal learning activities in physical and virtual spaces

Project description

Objectives:

1. To define a framework for the orchestration of educational settings within and between reflected spaces of different nature: Web, 3D virtual and augmented physical spaces.
2. To provide technological components that enable the flow of activity state and data between spaces, and the linking of objects in different spaces, so that orchestration can be achieved.
3. To define methods and supporting technology for the evaluation of ubiquitous learning that take into account the actions of the learners in the different spaces
4. To design, implement and evaluate pilot experiences using orchestrated elements in reflected spaces

Project partners

Based on a Spanish project proposal submitted by Universitat Pompeu Fabra, Universidad Carlos III de Madrid, Universidad de Valladolid, and where researchers from European institutions are also participating (such as EPFL-CRAFT)

Project justification

Nowadays education does not happen exclusively face-to-face, in the physical space. Neither does it happen exclusively through online tools, like VLEs, blogs or wikis. There is a continuous transfer from one space to another: certain activities are done in the classroom, then some are accessed on a web virtual learning environment or 3D world, then the students collaborate either physically or digitally... orchestrating the learning activities is a complex task that involves the design, support, observation and on-the-fly adaptation of the whole learning process. This process consists of several activities in which learners interact with physical or digital objects, by producing, consuming or annotating them....

154. Connection between Formal and Informal Learning

Group: Researcher

Project title

Designing an integrated approach of informal experiences and school learning

Project description

The study aims to design a learning and teaching method that integrates individuals' experiences in informal settings with structured activities in formal settings (ie. schools). Individuals can encounter learnable moments in everyday life. However, some experiences in real life do not connect well to any reflective thinking and become useless. If there are some strategies and systems to help individuals to learn new things at the learnable moments and to relate to formal learning, it provides authentic experiences and successful outcomes.

Project partners

-

Project justification

It may contribute to make school learning more authentic and incorporate external resources in classroom activities. Also it may show how advanced technologies (contextual awareness, mobile devices, GPS, etc.) can be used for informal learning and formal teaching.

156. Connection between Formal and Informal Learning

Group: Researcher

Project title

Stay on tune

Project description

how learners can really be aware of educational benefits arising from informal learning?
To be really aware of one's educational goals reached thanks to formal learning could contribute to make students more aware also of the benefits arising from informal learning.

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



Project partners

CNR
University

Project justification

In actual time of social collaboration and sharing, it would be important to be aware of one's real attitude and skills to share them in a more profitable way.

157. Connection between Formal and Informal Learning

Group: Researcher

Project title

Bridging the gap between formal and informal learning

Project description

Which are the learning activities that can implement this learning style ?
Which is the adequate technology

Project partners

University of Duisburg, Germany (prof. H.U.Hoppe)
University of Tokushima, Japan (Prof. Ogata)
Linnaeus University, Sweden (Prof. Marcelo Milrad)

Project justification

-

158. Connection between Formal and Informal Learning

Group: Researcher

Project title

Digital Cultures and Education. Methodological hypothesis and technological solutions for teaching and learning merging, between formal and informal situations

Project description

The research program aims to detect the relationship between formal and informal learning, paying particular attention to media consumption, reception practices and utilization in order to bridge the gap between youth cultures and school education. Digital convergence leads to new modalities in culture appropriation and utilization in order to bridge the gap between youth cultures and school education. Digital convergence leads to new modalities in culture appropriation and knowledge skills, enabling contemporary generations to a more dynamic and creative approach.

RESEARCH QUESTIONS

The research moves from two main questions that research in education already put in evidence about digital and social media, that is:

- 1) the need of clarifying how individuals construct their own knowledge in informal settings;
- 2) the determination of the role media play for that in relation to current consumption opportunities.

Since the convergence between formal and informal contexts is promoting personalized processes, we have to find out new teaching methods to promote the activation of these processes themselves.

AIMS

Research makes sense of to two main aims:

- 1) a first category includes detection, recognition and reconstruction of the theoretical framework about the analysis of three dimensions concerning youth media consumption: public, participation e learning;
- 2) the second one includes preparation, planning guidelines, methodologies, cultural and technological artifacts in order to facilitate a meaningful and appropriate use of technology in education.

OUTCOMES

The research will produce the following outcomes:

- monitoring of case studies to detect the gap between youth cultures and school ones;
- design, implementation and realization of technological solutions to facilitate the merging of technologies;
- drawing of guidelines to implement sustainable teaching practices;

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



- building of a glossary as an ontological frame of research;
- media practices analysis of students and teachers in formal and informal contexts.

Project partners

-

Project justification

-

159. Connection between Formal and Informal Learning

Group: Researcher

Project title

Towards a unified and attractive learning experience

Project description

1 How to organise compulsory education in such a way that it prepares youngsters and adolescents for a life of incessant learning?

2 How to organise post-initial, non-compulsory education so that it is effective, efficient and satisfactory?

3 What role can and should technology in this?

Project partners

Graz KMI, U Barcelona, Caledonian Academy, OUNL, OUUK, Fraunhofer FIT

Project justification

Learning is dread by significant portions of society, not only most young people but also those who engage in vocational education. The reason is that we use forms of learning and teaching that are dictated by constraints that no longer obtain. Lest our western societies fail to remain competitive (and affluent), our workforce needs to remain well-educated, actually become ever better educated.

Otherwise we cannot keep the innovation wheel turning. It is not technology but creativity that drives that wheel. However, it is education that sets the upper limit to being creative. We need a workforce that is eager to learn, that is facilitated to learn easily and effortlessly. That requires a significant change in the way we have organised mandatory education, in the way we support (mainly technologically) voluntary, post-initial education, in the way mandatory education prepares people for a lifelong-learning job environment.

160. Connection between Formal and Informal Learning

Group: Researcher

Project title

Learning Design in informal Learning

Project description

How do we design a formal learning course in the informal Learning era?

What benefit do we have in an informal learning?

Project partners

-

Project justification

educational technological

161. Connection between Formal and Informal Learning

Group: Researcher

Project title

social networks in education

Project description

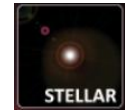
how can social networks such as facebook improve education?

in terms of learning gains

in terms of motivation

Project partners

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



-

Project justification

social networks such as facebook are used all the time. they are here to stay...

maybe there is a role for them in education.

education and in particular, secondary education still uses the methods of 20 years ago, nothing much has changed in the classroom (same teaching strategies, ..) children are bored most of the time...how can we change this?

162. Connection between Formal and Informal Learning

Group: Researcher

Project title

Understanding and Developing Networked Learning Ecologies

Project description

How can we understand and facilitate learning, collaboration and development of learning trajectories among learners in networked learning ecologies and bridge between formal/informal, institutional and non-institutional learning. The notion of Networked learning ecologies suggests digital learning environments, which include both learners and teachers and span institutional and non-institutional (e.g. work-based or informal) learning. The emphasis is on developing and understanding an organic continually changing learning ecology. Rather than:

1. Stressing differences between institutionally provided, structured system giving overview of courses (VLE/LMS) and e.g. personal learning environments and e-portfolio systems (PLEs).

2. Assuming inherent differences between collaborative interdependencies and personalisation/individualisation

3. Assuming that learning is a one-way relation from teacher to student

4. Assuming that learning happens within bounded spaces (classroom, semester, group, workplace)

The notion of Networked Learning Ecologies aims to stress and understand the inter-connections and the knowledge flow between people and resources in differently tied networks

(collaborative/cooperative/individual) of varying scale (group to mass-collaboration), with changing participants (teachers, students, researchers, practitioners). Evidently students' learning already happens across such boundaries and students' development of professional identities and knowledge happens in the intersections between multiple practices and spaces and through inclusion of various resources from diverse networks; and in the intersections between digital and physical context.

The research aims to provide a fuller picture of students' learning trajectories, as part of or pre-requisite for developing technologies (networked learning ecologies) which can (better) support and facilitate these complex paths. This includes a focus on developing systems where:

* Students can individually or collectively monitor, follow, re-represent and document their learning in continually updated portfolios in collaboration with more capable peers

* Can connect with each other and the wider world and form or join groups, communities or larger-scaled networks (streams/feeds/clouds) thus creating personal learning networks

* Engage in different types of learning relations (group work to gaining inspiration from) with more and less capable peers

This requires first and foremost a deep understanding of how information flows, is developed across varying digital and physical contexts and made into knowledge or learning. This means a focus on how people or groups/collectives of people collect information, make sense of it and create knowledge among them, and how this becomes both collective and individual learning.

Project partners

-

Project justification

-

163. Connection between Formal and Informal Learning

Group: Researcher

Project title

Taking art to class

Project description

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



how to use mobile devices to exchange representations between formal and informal settings

Project partners

art museum
computer scientists

Project justification

How devices and representations could bridge situations that share common goals (e.g., art classes and art museums)

164. Connection between Formal and Informal Learning

Group: Researcher

Project title

Representations of mathematics inside and outside the classroom

Project description

In order to achieve a real understanding of the relationship between formal and informal learning, we need to start by de-centering our concept of mathematics. As long as we maintain an institutionally-centred view of mathematics, then we are necessarily blind to the mathematical meanings that children are a part of outside the classroom. This project would study the mathematical meanings that children are part of inside and outside the classroom in order to better understand the relationship between them.

Project partners

-

Project justification

-

165. Connection between Formal and Informal Learning

Group: Researcher

Project title

The influence of erroneous information on blended learning
Faculty of Information Technology

Project description

Students frequently access various sources of information to be able to understand a concept that they were not able to fully grasp in class. The Internet is full of unreliable information where some is intentionally written in a wrong way, while other information is unintentionally written in a wrong way, while some information is written in a biased way.

The main research question is in a limited context of a subject chapter, how damaging is the erroneous information obtained off the Internet to the student learning experience.

The main assumption is that recently acquired information can be easily corrected if a concept is misunderstood. Other data shows that some types of knowledge are more resistant to correction than others even if recently acquired.

Project partners

Royal University for Women

Project justification

Due to the existence of technology and of sites that allow students to post their solutions to problems before they know that their solutions are correct. A large number of sites offer wrong solutions to questions. Mathematics as a subject is a good example. If one copies/pastes a question onto a search engine many solutions will appear of which several are wrong. The motivation of students to put this wrong answer may differ.

The question is how will this impact student learning. Is there damage that is difficult to correct? What subjects/domains do these exist in. A study will start with one subject and continue from there.

166. Connection between Formal and Informal Learning

Group: Educator

Project title

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



-

Project description

I would like to explore ways of enriching classroom experiences, drawing on children and young people's creative and innovative uses of technologies to support informal learning and recreation. It would give them an opportunity to explore new avenues, new ways of learning, and shift some elements of control. It would no longer be the case that the teacher needs to know about all technologies, more that they are partners and facilitators.

Project partners

-

Project justification

This would begin to address the digital literacies divide as all children in the classroom would be able to explore technologies. This exploratory, innovative, messy way of using technologies more closely reflects real life skills.

167. Connection between Formal and Informal Learning

Group: Educator

Project title

The Interconnectedness or Divide between Student Learning Inside and Outside the Formal Classroom

Project description

1. What are students learning out side the formal classroom and how are they learning? How much time do they spend with technology and what do they do with it?
2. Is there any connection between what students are learning inside the formal classroom and what they are learning outside the classroom? How are they making those connections? How much transfer of learning exists between contexts?
3. Is the cognitive process the same or different when learning in the formal classroom and informal learning?

Project partners

Would collaborate with school boards, psychology colleagues outside education, learning institutes. Would need to spend more time developing the project before I name specific institutions.

Project justification

The potential of technology is often cited as being able to tranform education and that it is already changing the way students learn. It is important to describe, measure and evaluate that learning both in a formal setting (where the majority of children spend a great deal of time) and in informal settings (where children have access to and are using new technologies). Children are spending more and more time engaged in technological activities without any measure of what they are learning or how.

168. Connection between Formal and Informal Learning

Group: Educator

Project title

Inside and outside the classroom with mobile technologies

Project description

How can learners in formal settings use mobile and ubiquitous technologies to integrate informal learning that takes place in the outside world?

Project partners

Mobile platform developers
Schools, colleges and univerisities

Project justification

Educating for lifelong learning - social and political imperatives

169. Connection between Formal and Informal Learning

Group: Educator

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*

**Project title**

Accredited Open Education resources

Project description

Can a framework be developed on a global scale, for delivering an international degree using OER?

Project partners

WikiEducator

Project justification

Reduced costs

Provides resources to address inequities between different countries

170. Connection between Formal and Informal Learning**Group: Educator****Project title**

Informal Learning Theory in the Modern World

Project description

Are there metrics to measure the effectiveness of informal learning?

How can we capture informal learning and incorporate it into our courses?

What are the mechanisms of informal learning?

Project partners

Athabasca University

Project justification

A significant amount of learning occurs outside the classroom, even for formal courses. Measuring the effectiveness of informal learning, establishing the mechanisms of informal learning and working towards incorporating 'best practices' of formal learning into formal courses could improve course outcomes significantly.

172. Connection between Formal and Informal Learning**Group: Business Person****Project title**

Conditions for Learning and development of Employability

Project description

What conditions need to be put in place to have learners be most successful?

What formats should be employed (formal/informal/technology enhanced etc)?

What mindsets need to be present?

What inputs required?

Project partners

Research universities.

Media labs in combination with neurology, eg. Media Lab @MIT

Workforce associations

Project justification

Better preparedness of our students to enter the workforce and improved leverage of existing knowledge while co-creating new and innovative practices.

173. Connection between Formal and Informal Learning**Group: Policy-Maker****Project title**

The use of technologie in the process of certification of unformal learning

Project description

STELLAR Delphi Study - research project proposals by the experts of the 4th STELLAR Delphi round for the Core Research Area *Connection between Formal and Informal Learning*



Can the use of technologies improve the process of processes of Recognition, Validation and certification of competencies (RVCC) acquired in formal, unformnal and non formal contexts?
How can the use of technologie enhance further learnings arrising from RVCC processes?

Project partners

National Agency for Qualification - Portugal
Centres for RVCC
University with research curriculum in learning processes and in technologies

Project justification

Research in this field can be of great utillity to promote the adult's education policies and to create a real lilelong learning environement in european societies

171. Connection between Formal and Informal Learning

Group: Educator

Project title

"I did it my way and you let me practice": a study of individual pathways to professional competence.

Project description

What pathways have competent people taken to reach their professional practice and expertise?
How much can be attributed to their formal education vs their informal?
What skills and influences can be said to be inherited or genetic?
What extraordinary talents or gifts stand out?

Project partners

Outstanding Individuals, acknowledged by their peers as exceptional.
Multi disciplinary and multi cultural researchers able to examine individuals in areas such as medicine, law, politics, science etc

Project justification

Need to debunk the hold that accrediting agencies have on summative assessment models proving competency.