

live
work
learn
create
explore
understand
make
collaborate
solve
share
digital



ELIG.org We change the way
Europe learns.

annual
report
13/14



**Dear ELIG Members,
Dear Partners and Friends,**

in its over 10 years of existence, ELIG.org has supported at European level the dialogue between public and private organizations, academic institutions and further stakeholders like non-for-profits or NGOs. We have provided advice on European policy and on research and innovation programmes in domains such as technology supported human learning or opening up education.

The past two years have been particularly important for the development of the ELIG activities and also our mission as organization. In October 2011, at the ELIG Members Meeting in the Design Factory of Aalto University in Finland, the idea for our initiative on digital exploratory- and creative-learning in schools was born: we.learn.it.

Since then, over 5.000 students have been involved in we.learn.it learning expeditions in 8 countries and more than 30 different thematic areas partially supported by the European Union. As an offspring, ELIG has partnered since 2013 with the Frankfurt Bookfair to organize the tremendously successful format of a Classroom of the Future – a lively laboratory for future education. Over 1.500 students and teachers have taken part in our Classroom of the Future activities in Frankfurt in the first two years. The Classroom of the Future has also gained wide interest in the general public including features on TV, radio, newspapers and in online media.

ELIG has continued to support innovation in other domains of education and learning, e.g. as supporters of the European Open Education Challenge, or via the European Union projects HoTEL, VISIR, Cre-AM and Inno-Entre on different roadmapping and innovation support topics in areas such as workplace learning, the creative industry or open education.

A particular close relation has evolved with the European Committee of the Regions and selected education innovation projects and national partners at European regional or city level. In support of this, the ELIG Members Meeting has evolved into a high-calibre ELIG Conference, each year organized in new local partnerships at a European hotspot location of education innovation. This includes partnerships with media partners such as The Economist or Times Higher Education.

We invite you to explore these and more of our activities in this report. And we would like to express our gratitude to you as supporters of the ELIG mission in different roles, as members of ELIG, as partners in our initiatives, as collaborators, sponsors or in-kind supporters.

We thank you for your trust and look forward to continue our joint mission with your involvement and support.

Yours sincerely
Richard Straub, Secretary General
Elmar Husmann, Deputy Secretary General

fore word

intro duction

“The best way to predict the future is to create it”

Peter Drucker

Digitization is transforming our societies and economies. The Internet and the world wide web have become an integral part of our lives within the past 25 to 30 years, the same time span that is also the average time between two generations.

But this transformation is not only adding new opportunities to our lives, it is changing at a fundamental level how we communicate, collaborate, work and create. Entire new digital industries have emerged, but the digital transformation is far from being only an economic one. It is largely a cultural, creative and social transformation.

Digital technologies provide us with very powerful means to realize our ideas at an individual- but also at a collective and societal level. They also provide new means to address societal challenges.

Education has always been concerned with the goal to prepare young people for the world and help them to become active and responsible members of our society while at the same time developing their individual inte-

rests and competences. Furthermore, we all continue to learn. And learning can create further opportunities at different stages of our work and lives.

The discussion on digitization of education and learning has long turned around technologies, tools, platforms and new content formats. But we have to revisit the more fundamental question of how education can take up the challenges of an increasingly digitized world. So rather than digitizing yesterday's education, we have to re-invent the way we provide and organize education and learning opportunities in the future.

Digital technologies are one important but by far not the only element in this equation. Hence, there is a strong need for bringing different perspectives together and for collaboration beyond boundaries in the educational environment. In ELIG, we regard this as an experimental and bottom-up driven rather than a “grand design” process.

However the many innovative initiatives and individuals that we have encountered in the past years, and the positive direct feedback that we have received from educators, from students and general public shows that strong bottom-up currents of transforming education and learning in Europe are underway. It is our aim to provide more visibility of these at European level, link it to established players and help to shape a European environment that provides potentials for scaling and supporting the most promising ones.

Filmmaking project with networked cameras





Martti Raevara, Vice President of Academic Affairs (Education) at Aalto University and ELIG Board - at the ELIG Annual Conference in London 2014

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ELIG activity areas

maker- centered learning



Learning expedition with LEGO Mindstorm robots

"The most salient benefits of maker-centered learning for young people have to do with developing a sense of self and a sense of community that empower them to engage with and shape the designed dimension of their world."

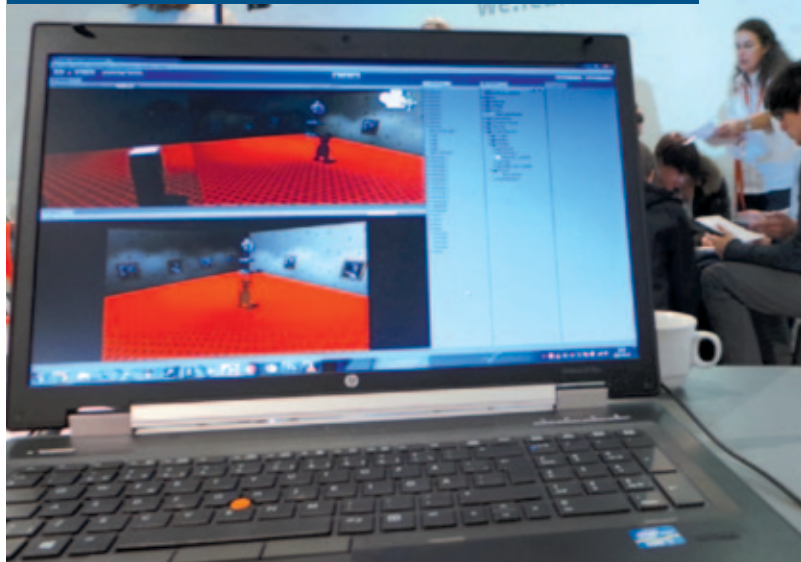
Project ZERO Harvard University and Agency by Design



The maker movement grew significantly in the past years and gained a lot of public attention. Traditionally, it has stronger links into higher education, in particular to disciplines such as product design, engineering and computer sciences. However, approaches adopted from the maker movement have an interesting potential in all fields of education. Also, the maker philosophy of openly sharing designs and build instructions corresponds well with the principles of open education. Making demands team work, solving challenges and design-oriented thinking. Rather than being a discipline, it is a multi-disciplinary approach to problem solving that supports learning interpersonal and social skills at the same time with technical and design skills.



Learning expedition with Stockholm University Game Lab



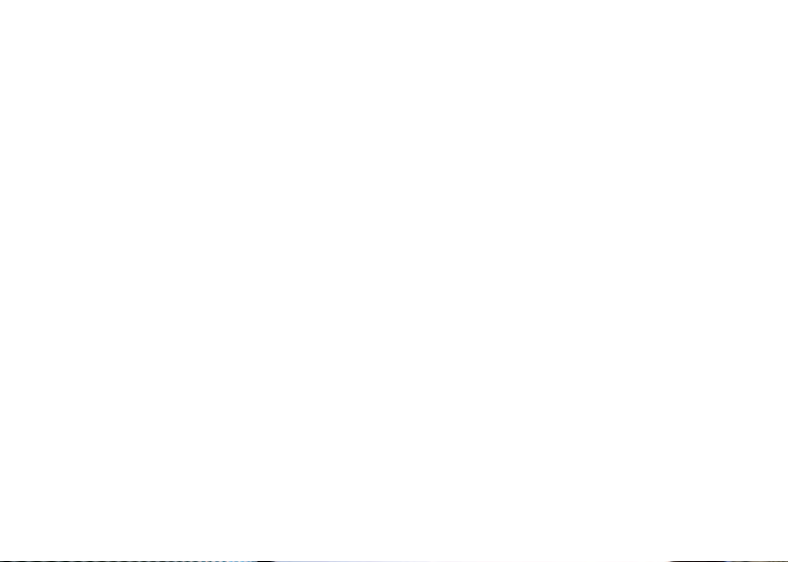


Harald Neidhardt (founder MLove festival) interviewing Roland Burger and Elmar Husmann at MaketechX Berlin

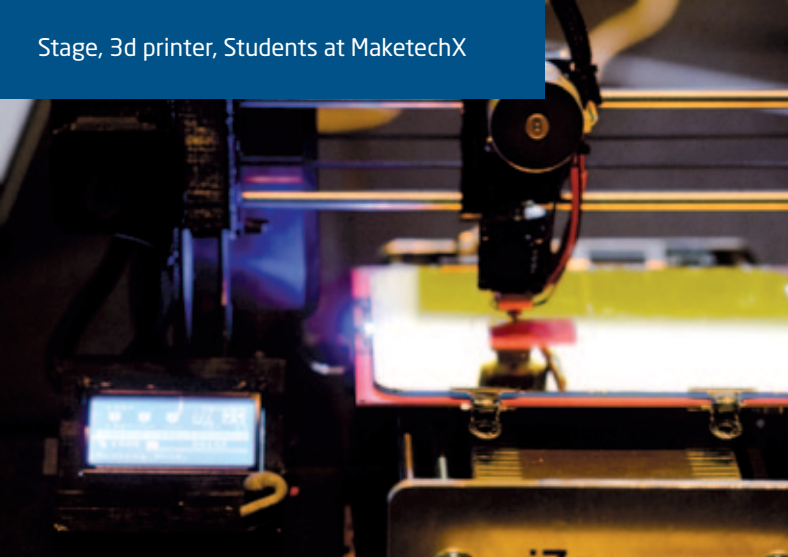
maker- centered learning

In the context of we.learn.it, ELIG has collaborated with initiatives such as the European Code Week, Make Germany, MaketechX and educational solution providers e.g. LEGO Education to organize maker-centred learning expeditions. Designing and coding robots was one such example. With the Stockholm University Game Lab we conducted learning expeditions on computer game design applying latest technologies like the Oculus Rift full immersive 3d glasses.

The base equipment to set-up maker labs and the use of equipment like 3d printers in education is another focus of our activity, linked to the ELIG activity area on *new learning environments*.



Stage, 3d printer, Students at MaketechX



Prof. Norbert Pachler (London Institute of Education) and student in a panel discussion organized by ELIG, Synlab and we.learn.it at Ecole42, coders school in Paris



Filmmaking project with networked cameras

learning & digital creativity

"Education should be about helping kids discover talents and interests that lie within them. I think that is absolutely critical. Secondly it should be about helping them understand the world around them so they can become compassionate and productive citizens."

Sir Ken Robinson

Digital technologies have become commonplace in all fields of creative production from journalism, to music, to filmmaking, or arts. In addition has the creative process been transformed by digital technologies in particular through the potential to more easily share and re-mix creative contributions of others.

ELIG has partnered with creative individuals such as journalists, film makers, audio book producers and others to offer creative digital learning expeditions. As part of this, we have also supported the collective production of results.

Filmmaker Luc Jacquet discussing with students



Stop-motion video project with comic artists



Think with Things and we.learn.it workshop



Our collaborations have included filmmaking workshops with nature filmmaker Luc Jacquet (Oscar winner in 2006) and media artist Rebekah Tolley. Together with the first German television ARD and producer Heikedine Körting audio stories were produced. Students teams also worked with comic designers or journalists. Supported by book editor Mona Horncastle, two e-books were produced with digital contributions from over 100 students each. With the team of Think with Things – finalist of the European Open Education Challenge – we have collaborated on workshops with primary school kids using everyday objects to create digital video stories.

Creative base techniques, such as character design or storytelling, are not only limited to the field of arts. We have also seen in our workshops that they may increase personal involvement in topics such as history or social sciences.

ELIG also supports the CRe-AM EU project that develops European research roadmaps for digital technology in the creative industries. ELIG does research for the sectors e-publishing and new media.

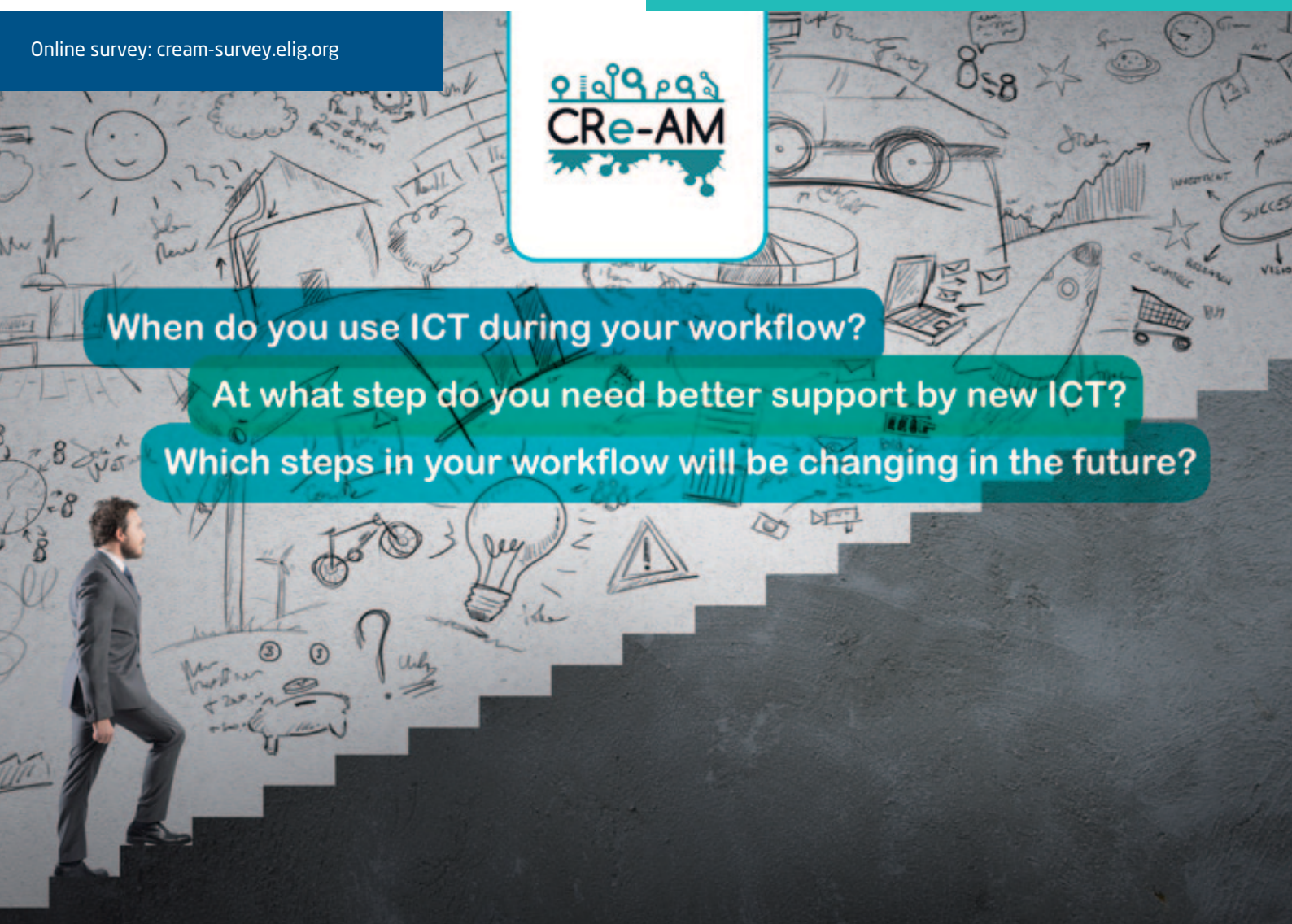
Online survey: cream-survey.elig.org



When do you use ICT during your workflow?

At what step do you need better support by new ICT?

Which steps in your workflow will be changing in the future?





Audio book recording workshop



Social content by students on we.learn.it website

learning &
digital
creativity

Workshop in the La Villette Science Center Paris with we.learn.it and Batisseurs de possibles (Founded by ELIG Fellow Florence Rizzo)



"When you are face to face with a difficulty, you are up against a discovery."

Lord Kelvin

science and exploratory digital learning

Science has always been an important part of the educational curriculum. However, it is often supposed that active engagement in the scientific community and in scientific exploration starts only at the level of higher education.

Traditionally have also the tools of scientific exploration as well as the means of sharing and publishing scientific results been restricted. But this is increasingly opening up. In fact, sciences are also undergoing a digital transformation via trends such as open access and open data, citizen sciences or crowdsourcing of scientific data.

In 2013, ELIG has organized a teacher workshop at the German Space Center (DLR), where DLR experts explained the potentials to use openly available European satellite data e.g. in school projects on geo sciences or urban development.



Learning expedition in the Stockholm Technical Museum with we.learn.it and Stockholm University

In 2014, ELIG and Stockholm University organized iMuseum learning expeditions in the Nobel Museum and the Stockholm Technical Museums. Similar explorative activities were conducted with the Batisseurs de Possibles initiative in France (founded by ELIG Fellow Florence Rizzo) and the La Villette Science Center Paris, the organization of deep sea explorer Claire Nouvian, the Center for Interdisciplinary Research (CRI) and others.

As part of our Classroom of the Future, we have partnered with the Geomar Marine Research Institute (Helmholtz Society) and the Leibniz Center for Tropical Marine Ecology.

Digital technologies not only allow to access scientific data, tools and research opportunities. They also allow to the interaction between educators and researchers even if there are in different places of the world.



Teacher workshop at the German Space Center



In the past years, we have interacted with several innovative learning spaces such as the Aalto Design Factory, the Hasso Plattner Institute in Potsdam, the Entrepreneurship Center of the Technical University Munich, the EducaLab Project in Paris.

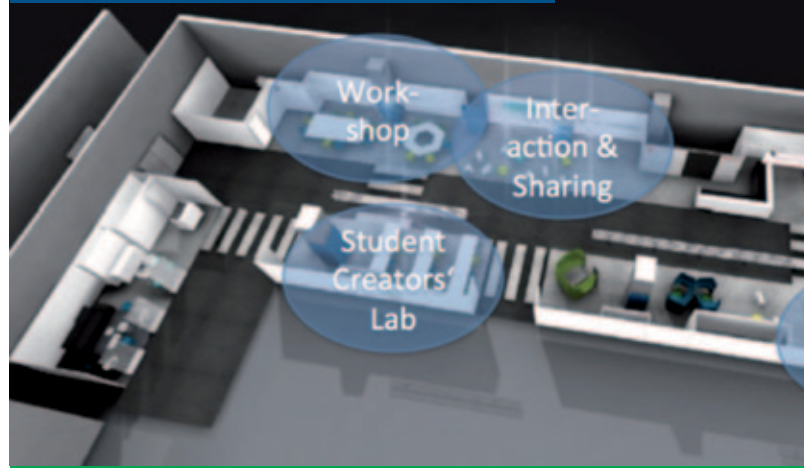
ELIG has also been part of the Energizing Urban Ecosystems project that is developing innovative concepts for the Espoo city development including the Aalto University Campus and the surrounding Innovation Garden area.

In collaboration with vitra, ELIG has worked on a design concept for the Classroom of the Future. This includes open, flexible spaces as well as dedicated areas such as a student creators labs and a social media office. It also blends open areas with areas that allow privacy for smaller teams.

But new learning environments are not restricted to rooms. With Young Digital Planet and their StartUp QuestRunner, we have organized outdoor learning games. Similar outdoor learning activities have been organized in Finland and during the Frankfurt Bookfair with Aalto University and the StartUp SmartFeet.

Finally, we have taken learning outside of the classroom and in spaces such as a train or the alps, as part of the we.learn.it learning expeditions. Mobile technologies are well suited to support such learning experiences outside of the classroom.

Supported by Steelcase, we have started a series of workshops at the ELIG conference on transferable elements and characteristics of new learning spaces.



"It is easier to enhance creativity by changing conditions in the environment than by trying to make people think more creatively"

Mihali Csikszentmihalyi

Workshop area in the Classroom of the Future



new
learning
environ-
ments

Partners of the Classroom of the Future 2014

Premium Partners



Content Partners



Daniela Schadt and Jenni Haukio visiting the Classroom of the Future



adaptive learning and smart use of data

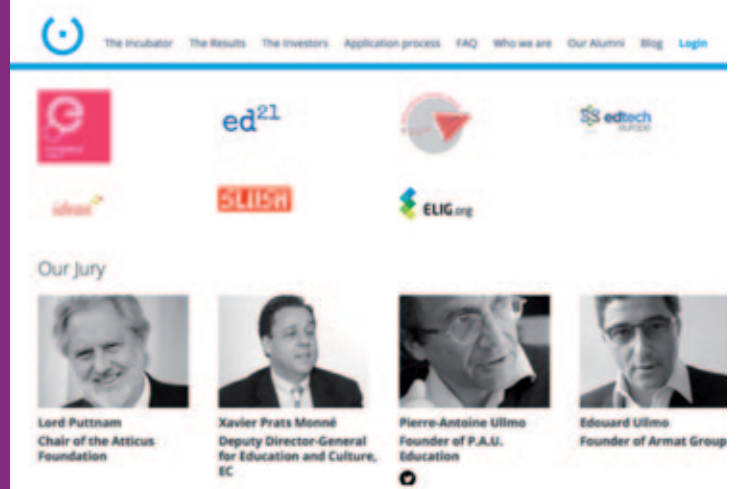
Data has often been called the oil of the digital age. In collaboration with partners such as IBM, Kaplan Learning and Harvard University, ELIG is addressing the potential of leveraging data in education.

A particular field of application is in understanding root causes of student problems – e.g. boundary factors of university drop outs. Other fields are the personalization of learning, e.g. by adapting digital learning material to individual progress.

The smart use of data will be one focal topic in the ELIG conference 2015 within a workshop co-organized by Chris Dede, Prof. at the Harvard Graduate School of Education and Bror Saxberg, Chief Learning Officer at Kaplan.

Within ELIG we recognized at the same time, that the preservation of student data privacy as well as overall cyber security, against e.g. external hacks, is an essential pre-requisite for data intensive solutions in education. This is demanded by the special sensitivity of data in education.

ELIG has collaborated with initiatives like the European Data Protection and Privacy Conference (CPDP) or the European Alliance for the Protection of Cyber Space (CYSPA) to raise awareness of the specific needs of data intensive solutions in the education sector.



open education

ELIG has a longstanding engagement in Open Education, dating back to previous research and piloting projects with the United Nations University and with organizations from the Open Source Movement. Openness and education is also the topic of the first volume of the ELIG book.

In ELIG, we understand open education as not only restricted to the opening of educational materials and resources. We also understand it as the opening of many further aspects of the educational systems to influences and interactions with the world outside the classroom.

In the ELIG white paper "Opening up education" as well as in the book, this approach to open education is described in detail and linked to tangible examples and cases.

The paper has been handed-over in a plenary session at the Online Educa Berlin Conference 2013 to Pierre Mairesse, Director at the General Directorate for Education and Culture of the European Commission, as one of the leading minds behind the EU Opening up Education Strategy.

Open education also includes in the ELIG view a more entrepreneurial and innovation oriented approach to education. Inno:entre is a new ELIG initiative that takes this perspective.

ELIG has further supported the first round of the European Open Education Challenge, an incubator initiative for start-ups in the domain of open education.

learning for innovation and entre- neurship





European Commission, at the ELIG Annual Conference in Stockholm 2013

ELIG public policy dialogue



ELIG conference series

ELIG Conference Stockholm
2013

Europe missing the boat
again?

How to rise up to the
opportunity of the new
Digital Learning Revolution



Learning technologies are finally becoming global and reaching large scale: massive open online courses (MOOCs), learning in social networks and big data learning analytics. Are we approaching a tipping point in the evolution of digital learning and what is the role of Europe in this development? Will the next generation of digital learning be shaped by players outside Europe – or will Europe be able to successfully leverage its local strengths and great traditions.

Florence Rizzo (SynLab & ELIG Fellow), Elmar Husmann (ELIG)





Katelyn Donnelly, Managing Director Pearson Affordable Learning Fund

This ELIG annual conference brought together digital education leaders including Johannes Heinlein, board member of the MIT-Harvard MOOC Initiative edX, Katelyn Donnelly, co-author of the Pearson „Avalanche Report“, Pierre Dillenbourg, chair of the European MOOC Summit, as well as top representatives from the European Commission, the OECD and many others.

Prof. Henrik Schärfe (Aalborg University) describing his visionary Geminoid-DK project



Prof. Pierre Dillenbourg (EPFL Lausanne) discussing MOOC experiences



ELIG conference series

ELIG Conference London
2014

Scalable Learning in a
Fast Changing Environ-
ment - New Partnerships
and Business Models



Sabine Schumann (PAU Education and ELIG Board Member)
discussing on the panel with Eleanor Murphy (Apps for Good)





Adrian Wooldridge (The Economist) providing introductory thoughts at the ELIG 2014 conference in London

Innovation, creativity, entrepreneurial spirit and human potential have become the essential production factors of our modern societies.

Have our European education systems, our schools, our higher education institutions as well as our professional- and life-long learning organisations adapted to this challenge? Or are they still designed for the economic and societal demands of the past?

The ELIG Annual Conference 2014 brought together education, policy, learning business and innovation leaders to debate:

How can we scale up learning at the speed of change – formal learning and experiential learning?

How can we equip institutions and organisations with a new environment where learning becomes integrated into work?

What are the economic and societal demands of learning in a fast changing environment?

How can we build scalable learning that balances the acquisition of foundational skills with the everchanging demands for specific domain and task-oriented learning? How can digital learning support this? What are new partnerships, learning venture funding and business models that can support this change? How can learning innovation be accelerated given the inherent conservatism of traditional learning Institutions?



Michael Shaw (TES), Jacob Kestner (Pearson), Sean Corcorran (Steelcase)

ELIG collaboration with the Aalto Camp for Societal Innovation (ACSI)

Markku Markkula, President European Committee of the Regions





Kunitake Ando, retired President of Sony



ELIG has started a collaboration with the Aalto Camp for Societal Innovation (ACSI). ACSI is a successful incubation model for social change initiatives. In this context, ELIG has supported the Energizing Urban Ecosystems initiative of the Espoo and Helsinki regions by contributing in particular our experiences on new learning environments.

ELIG has also contributed to an ACSI camp on citizen involvement including societal challenges contributed by the European Commission, the city of Amsterdam, the cities of Espoo and Helsinki.

For 2015/2016 a specific camp on EU Education Challenges is in preparation and a collaboration with the ELIG conference.

our work in the media

Public

Blog of the Mayor of Frankfurt
Code Week Germany
Die Bundesregierung
(German Government)
German Embassy London
Open Education Europa

Media Partnerships (ELIG Conference 2014)

The Economist
Times Higher Education
TES Connect

TV

RTL Hessen
RTL News
SAT1
ZDF Logo

Radio

Campus Radio
Deutschlandradio Kultur
Deutschlandfunk
Radio Kanal K
Südwestfunkradio

Newspapers & Online

ARD Blog

Al Jazeera Online

Berufsverband Informa-
tion Bibliothek
Boersenblatt.net
Buchmesse Blog
Buchmarkt News
Checkpoint eLearning
Deutsche Welle
Die ZEIT
Drucker Forum Blog
Edukata.fi
Frankfurter Rundschau
Mittelbayrische Zeitung
Oceanblogs.org
Publishing Perspectives
Rhein-Main Net
RP Online
Smart digits Blog
Sofatutor Magazin
Stol.it
Stuttgarter Nachrichten
Stuttgarter Zeitung
Südkurier
Südtirol News
Télam tecnologica





Nikolaus Gelpke, Sea Explorer and Publisher (MARE),
interviewed by students in the Classroom of the Future 2013

Some of our collaborators in 2013 and 2014

Aarhus University	Institute of Education, University of London
Apps for Good	Italian Scratch Programming Festival
Aristotle University, Thessaloniki	La Villette Science Park, Paris
Batisseurs de Possibles	LEGO Education
Bayrischer Realschulverband	LMU Munich, Geography Department
Bloom (Deep Sea Explorer Claire Nouvian)	MakeGermany
Cap Digital Paris	MARE Verlag
3D Dinge	MINT Zukunft Schaffen
Center for Interdisciplinary Research (CRI), Paris	National Geographic (Photographer Reza Degathi)
Commonwealth Telecommunications Organization, London	Nobel Museum, Stockholm
Energizing Urban Ecosystems, Espoo (Finland)	OECD
European Code Week	Smart Feet
European Open Education Challenge	Tarian Films (BBC Filmmaker Rebekah Tolley)
Forum Virium Helsinki	Technical Museum, Stockholm
Geomar Research Center Kiel (Helmholtz School Labs)	The United Nations University
German Aerospace Center (DLR School Labs)	Think with Things
Harvard University, Graduate School of Education	UNESCO
Horncastle Education	UnternehmerTUM (TU Munich Entrepreneurship Center)
Hörspielstudio Körting	Westermann Publishing
ICWE (Online Educa Berlin)	WildTouch (Filmmaker Luc Jacquet, Oscar 2006)

ELIG book series and publications



In collaboration with Emerald, we have launched an ELIG book series on "Advances in Digital Education and Lifelong Learning". It is planned to publish each 2 years a new book that summarizes actual digital learning trends from the perspective of ELIG collaborators and members.

The first volume on "Openness and Education" has been co-edited with the United Nations University Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT) and published in 2013.

The second volume on "Entrepreneurship and Innovation in Education" is planned for 2016 in partnership with the Aarhus University Center for Teaching Development and Digital Media.

In addition to the book series, ELIG continues to publish white papers and studies as well as articles and book chapters.



people and organi- sations behind ELIG

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ELIG Board

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& Applied Learning, Pearson Education

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IMD Business School, Lausanne

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Vice President for Strategic Business Development
at Wiley

Steffen Ganders
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Samsung

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Director of Policy, Teaching and Learning for Europe,
Middle East and Africa
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Sabine Schumann
Managing Director
at PAU Education

ELIG thanks to our longterm board member
who leaves the ELIG board in 2015

Peter Hamilton
Director of Curricula and
Alliance partner ecosystem development for EMEA
Intel

ELIG Members



We change the way Europe learns ELIG.org

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Roland Burger, Researcher Stockholm University
Claudia Didjurgeit, Senior Advisor
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Elmar Husmann, Concept & Words
Astrid Groborsch, Design
Photos: ELIG
2015





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Europe learns.