COST Action IS1410

The Digital Literacy and Multimodal Practices of Young Children (DigiLitEY)

Report on Year 1

DigiLitEY

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EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

Contents

DigiLitEY Meeting 1

The official launch of the COST Action took place in Brussels on 24th April, 2015. The meeting identified the key objectives for the Action and planned the next meeting.

31 countries had accepted the MOU by 10.6.15

The Steering Group membership* was agreed:

Chair	Jackie Marsh, UK
Vice-Chair	Ola Erstad, Norway
Editorial Co-Managers	Bettina Kummerling-Meibauer, Germany Iris Susana Pires Pereira, Portugal
Web and Dissemination Manager	Bernadette Dwyer, Ireland
Early Stage Researcher Manager	Eithne Kennedy, Ireland
Co-STSM Managers	Roel Van Steensel. Netherlands Reijo Kupiainen, Finland
Co-Stakeholder Manager	Anca Velicu, Romania Brian O'Neill, Ireland
Co-Training Schools Managers	Claudia Van Kruistum, Netherlands Helle Strandgaard Jensen, Denmark
Co-Chairs WG1	Kristiina Kumpulainen, Finland Helle Strandgaard Jensen, Denmark
Co-Chairs WG2	Stavroula Kontovourki, Cyprus Eufimia Tafa, Greece
Co-Chairs WG3	Adriana Bus, Netherlands Natalia Kucirkova, UK
Co-Chairs WG4	Julian Sefton-Green, UK Kristi Vintner, Estonia
Co-Chairs WG5	Rosie Flewitt, UK David Paved, Spain

International Advisory Board Manager	Kjartan Olafsson, Iceland

*Following the meeting, it was agreed that Dr Giovanna Mascheroni, Italy, would replace Kristi Vintner, Estonia, as Co-Chair of WG4. In addition, Dr Dylan Yamada Rice, UK, was invited to take on the role of Children's Media Industry Liaison Manager

Working Group meetings took place in Meeting 1. WG members reflected on the aims and objectives of the WG, as outlined in the proposal, and plans were made for Meeting 2.

Aisling Cooling was appointed as the Project Administrator.

The project website was set up: http://digilitey.eu/

DigiLitEY Meeting 2

The second meeting took place in Tallinn, Estonia, 19-20th October, 2015

2 more countries had signed the MOU, making the total 33.

This meeting was a collaboration with the European Conference on Information Literacy, and attended by over 300 delegates. 75 COST Action members attended. We welcomed Professor Susan Danby, Australian Research Council (ARC) Future Fellow in the School of Early Childhood at the Queensland University of Technology to the meeting in Tallinn. Professor Danby gave a keynote speech on young children's web searching. Professor Sonia Livingstone, Management Committee member, gave a keynote which provided a European perspective on modelling children's experiences of online skills, opportunities and risks, based on the extensive research undertaken by the EU Kids Online project.

Stephane Chaudron from the EU Commission Joint Research Council gave an update on a project she is leading across 18 countries on young child children's digital literacy.

Dr Dylan Yamada-Rice and Peter Robinson from Dubit gave a workshop on theoretical frameworks for understanding literacy and multimodality.

On both days of the meeting, the working groups had two half-day sessions to further work on their objectives.

Working Group Meetings

Working Group 1

Aims of WG meeting in Tallin:
 (1) introduction of the WG members; (2) discussion of members' long term research questions, research interests and goals; (3) discussion of inclusion of private sector partners in WG's activities.

Steps taken to reach aims:

Aim 3 was identified as the one which needed most planning before the workshop. We wanted to include perspectives from different kinds of companies and we wanted to include the members of WG4 in this activity. We contacted a small start-up company that had digital products as the main focus (SkillPixels) and a big company, which had started in analogue toys and ventured into digital (LEGO). Finally we included a business-academia crossover company who advises companies on children and technology (Dubit).

To include working group 4 and the action chair, we held skype meetings.

At the workshop we had two different sessions. One where WG1s members presented themselves using oral presentations and padlet. See: http://padlet.com/rgx626/jda03fz3r6z0

This session also included a discussion of working group research questions using TodaysMeet, see appendix 1.

For the second session representatives from all invited companies presented themselves and their companies view on relationships between children and media. On the basis of these presentations all members of WG1 and WG4 did a SWOT analysis in padlet: see: http://padlet.com/rgx626/SWOT

To follow up on possible collaboration with LEGO, members from WG1 held a meeting in Billund on 4 December with representatives from LEGOs Global Strategy unit.

Working Group 2

The second meeting of Working Group 2 in Tallinn centered on three different strands: (a) the summary report on digital literacy in official policy documents, prepared during the interval between the first and second meeting of the Action (June-September 2015); (b) the preparation of an extensive review of literature/research on issues related to the objectives of the Group; and, (c) the identification of participants' interests as those might lead to the identification of areas of inquiry.

Discussion on the policy draft report centered on issues relating to difficulties deriving from the lack of singular definition of digital literacy across documents and educational settings. As pointed out, this difficulty is intensified because digital literacy rarely appears across participating countries, while a variety of terms is being used not only in different countries,

but also by different organizations in a given country. The Group thus appeared to agree on the following as future steps of action:

- The utilisation of a shared definition of digital literacy and/or the consideration of other terms that help inform understandings thereof, as this might be informed by key documents like the Action White Paper on digital literacy.
- The updating of the report through additional rounds of searches that will be conducted at regular intervals (February 2017 and February 2018); and, the conduct of a more focused round of review as per the definition of digital literacy adapted by the Action (February 2018-February 2019).
- The publication of a final report to include key messages for policymakers by the end of the Action (April 2019).

In preparation of an extensive review of literature/research, participating members discussed the themes and objectives of the Group to identify keywords for initial searches. They also agreed on the need to synthesise from recent empirical studies that yet cover an adequate period of time when technology and digital literacy has been increasingly visible in the early years. It was thus decided to consider studies published during the period 2000-2015 in peer-reviewed journals. Participating members also discussed issues relating to the organisation of the review.

The third discussion strand of the meeting emerged from participating members' experiences, as time was devoted to sharing their research interests and possible inquiry questions. This framed the discussion on how work could be developed to further the objectives and theme of WG2. Two goals were identified as important for the Group. First, a short-term goal would be to scaffold collaboration among group members for the publication of original work (conducted by individual group members) in themed issues and/or edited volumes. Second, a long-term goal would be to utilise individual member expertise and research interests in order to identify gaps in research relevant to the WG2 theme and come up with new project ideas for which funding could be potentially sought. It was decided that this may be attempted after the completion of the WG comprehensive review of literature. In terms of the content of conversation, teachers' role and professional identity emerged as central for the integration of digital literacies in early years settings and informal spaces. Group members agreed that teachers' beliefs about digital literacy (e.g., fears, experiences, cultural capital, aspirations), as well as more general, established beliefs over teaching and learning are worth examining. Group members suggested the examination of the relation between technology/digital literacy and non-digital literacy, while the concept of multiliteracy might prove useful for integrating technology/digital literacy

across subject-areas. It was thus decided that interested group participants proceed with an interview-based inquiry to collect data from different participating countries.

Apart from these strands, the Group had an opportunity to listen from David Poveda (co-chair of WG5) and Jackie Marsh. David Poveda presented the objectives and actions of WG5 (focused on methodologies, and thus necessary to collaborate with each of the other WGs) and put forth particular suggestions on how to foster communication among WGs. In the discussion with Jackie Marsh, group members raised issues relating to:

o The identification of group members and the need to make connections among people outside groups

o The facilitation of communication among groups

o The pros and cons of membership in one or two groups

o The need for and limitations of developing platforms to share and coordinate work within and across WGs.

Working Group 3

The main theme of WG3 meeting in Tallinn was a review of the current state of reading and writing on screen across Europe.

There were four presentations of WG3 members in which core issues discussed were:

    (1) Growing use of technology/tablets in preschool/kindergarten

    (2) Software available and in construction for young age groups

    (3) Quality of reading programs

    (4) Advantages and disadvantages of digital books

Presentations

Charles Mifsud from Malta presented the one-tablet-per-child project in Malta. This is a political decision with large consequences for education of all 7-8-yr-olds. Maltese education aims at dual literacy, that is in Maltese and English. The inclusion of technology in 7 education for 7 onward promotes true curricular integration, and not simply 'add-ons' to instruction. He carried out an ethnographic study in five classes with 7-year-olds which revealed positive moments suggesting that technology improves learning and instruction (Malta TabLit study).

Izabela and Slawomir from Poland presented about one classroom of mandatory preschool education equipped with tablets for every child, initiated by an in-service

teacher. We caught glimpses of software (letter forms, puzzles) as developed by the same teacher. Authors reported improvement of involvement and concentration.

Iris Susana Pires Pereira presented Portuguese projects and software targeting reading and writing on screen, mostly not yet researched but certainly of potential interest. In so far researched the focus has been on age 6 and onwards.

Jan van Coillie from Leuven briefly described ongoing research with a questionnaire to test how children perceive advantages and disadvantages of reading on screen.

Adriana Bus from Leiden University discussed several approaches to the WG3 theme:
1. Content analysis of programs/apps that are in use in our countries thereby signalling commonalities and differences across countries
2. Basic research into how programs/apps for on screen reading and writing affect early reading and early writing, with a specific interest in new theories of early reading and early writing in the digital age
3. Review of research into effects of programs/apps for on screen reading and writing synthesising research findings.

Key research questions put forward in the presentations and discussed in the WG3 meeting in Tallinn:
1. What do we mean when we refer to reading and writing on screen from 0-8? How does the new communicative context redefine our understanding of reading and writing?
2. Which programs/apps are in use to promote early literacy, what are core features that distinguish programs/apps from reading on paper, and which new qualities promote/hinder literacy?
3. Do programs/apps have qualities especially useful for prevention of learning problems?

Other questions not discussed in Tallinn but probably of interest:
4. We need to create learning programs to support families and make high-quality learning environments the norm from birth through elementary school but to what extent are age- appropriate programs/apps to stimulate early literacy available across countries? And in so far available do they follow best design principles?
5. For this we need to specify whether or not programs/apps cover main aspects of literacy development. Important issues might be whether or not programs/apps are available in local languages (versus English)? Is practice age-appropriate?

6. How can we promote that society invests in early learning programs to support families and make high-quality learning environments the norm from birth to elementary school? Who develops programs/apps and can we involve them in the discussion?

Working Group 4

The meeting in Tallin introduced the members of the working group to each other's expertise and interests resulting in a working document to map out common areas for future work. Two main theoretical areas have been outlined:

1. Reconceptualising the digital in the everyday, also through an analysis of the offline material experience (interacting with digital technologies as objects).
2. The political implications of the online/offline (implications of big data for privacy, identity and agency; the need to build a new age and development theory beyond developmentalism).

Two cross-cutting themes have also been identified:
1. relationship with industry (also in knowledge production e.g. big data)
2. cross-cultural comparisons

During the WG meeting, a symposium was held on academic-industry collaboration, which was organised with WG2. Representatives from LEGO and otherinvited companies presented themselves and their companies' views on the relationship between children and media. On the basis of these presentations all members of WG1 and WG4 did a SWOT analysis in padlet: see: http://padlet.com/rgx626/SWOT

Following the discussion, it was clear that the Action needed a specific strategy to engage the children's media industry in its work. To that end, Dr Dylan Yamada-Rice was appointed as the Industry-Liaison Manager.

Working Group 5

The focus of the work in this first period has been to scope the range of methodologies used to date by COST members in their research across Europe. This process began in earnest at the October 2015 COST meeting in Tallinn, Estonia, where approximately 20 COST Action members attended the WG5 working group sessions. During the Tallinn

meeting, Professor David Poveda made a short presentation to each of WGs 1-4, with a view to a) enabling us to get a clearer idea of each group's activities and endeavours b) establishing close liaison between WG5 and all other WGs, and c) answering any queries with regards to the work of WG5. Dr Rosie Flewitt presented a plenary paper to conference attendees, focussing on the core COST Action premise of multimodality and multimodal research methods.

Work completed during this period includes:

1. In preparation for the Tallinn meeting, the WG Chairs set up and invited colleagues to deposit papers focussing on methodology to a Google Drive repository. During the Tallinn WG5 meetings, attended by 20+ COST Action members, the range of methodologies currently in use by members and areas of methodological expertise were reviewed.

2. The ideal criteria for producing a searchable research methods database were agreed, and a Research Methods Database framework was drafted.

3. A 'Methodology Agent' was established in each Cost Action WG, that is, a named person with whom WG5 can co-ordinate. Each 'Methodology Agent' is responsible for collating research papers and reports being used by the Working Group they represent, and has been asked to deposit them all in the relevant folder in the repository. The co-ordinators of each WG, or the 'Methodology Agent' (if that is a different person), has also been asked to send brief answers to the questions below, with the request to simply list different approaches supported by a reference for each approach, and identify any new, innovative approaches:

    a. What range of methodologies are being used in your field?

    b. What strategies are being used to have impact on practice, policy, broader public discourse?

    c. Does there appear to be a link between the methodologies used and the intended impacts? Please give a few specific examples if possible, with references.

    d. What ethical issues are emerging as salient?

Policy Meeting

A policy meeting was organised by Brian O'Neill and Anca Velicu, the Stakeholder Managers. Two policy makers from Estonia joined the meeting: Ülle Talihärm, Adviser for Libraries, and Imbi Henno from the Ministry of Education and Research of Estonia.

Main ideas discussed:
Libraries are very involved in cultural life with a program for developing reading habits (cultural policy 2020)

- Ð Strength: Estonia has a big network of libraries
- Ð Challenges: unsolved problems with legislation with copyright when it is about lending electronic books; ebooks are considered service not object - impact on VAT (European level)
- Ð For Children: public libraries have many projects for children and small children (e.g. reading dogs or a project with young mother because they consider parental knowledge important therefore providing training in digital literacy
- Ð Needs: libraries do support literacy in general and are open to support more digital literacy in special, but they would want from researchers a more specific definition for what DL is. This clarification is welcome especially as there still is the perception of the internet as 'unsafe'.

DigiLitEY Meeting 3

The third meeting took place in Larnaca, Cyprus, 17th and 18th March 2016.

96 delegates from 36 countries attended the meeting. The three keynote speakers, Professor Cathy Burnett, Dr Julia Gillen and Professor Heather Lotherington provided overviews of their research on children's digital literacy practices in early years settings and schools.

Stephane Chaudron from the EU Commission Joint Research Council gave an update on a project she is leading across 18 countries on young child children's digital literacy.

Ioanna Palaiologou, representing the Digital Childhoods Special Interest Group of the European Early Childhood Research Association, presented the outcomes of a project she undertook on under 5's use of technologies in the home.

There were two accounts of policy in relation to young children's digital literacy in Finland and Denmark, presented by Saara Salomaa from the National Audiovisual Institute (KAVI)of Finland and Anne Meth Thorhauge from the Danish Media Council for Children and Young People.

On the second day of the Action, the Working Groups spent all day working on various projects related to their objectives.

Working Group Meetings

Working Group 1

After a presentation given by Julia Gillen on the 'A day in the life' methodology, several members of working group 1 gathered to discuss potential avenues for a collaborative research project, possibly based on (an adapted version) of this methodology. With the main purpose of finding common ground, the discussion focused on (i) the research

questions the members have worked, are working and/or would like to work on, and (ii) the suitability of the 'A day in the life' methodology.

With respect to the research question that could inform a future, collaborative research effort, the members expressed a shared interest in obtaining young children's own perspectives on the role digital literacy practices play in their out-of-school lives. As research interests otherwise seemed to vary, one challenge ahead will be to develop a research proposal that allows members to explore additional and diverging research questions.

With respect to the 'A day in the life' methodology, members were enthusiastic and suggested some alterations that could be made, based on their own experiences with innovative methods. The main concerns were how to gather data in a way that is non-intrusive (e.g. in order to be able to include migrant families) and feasible (e.g. in terms of available manpower). The members also questioned whether one day would be enough to get a good impression of everyday digital literacy practices, as previous research has shown that weekdays differ from weekends. So a second challenge for the development of a proposal is to adapt the 'A day in the life' methodology in such a way that similarly rich data can be gathered while taking into account the wishes and constraints of different research groups. Plans were made with regard to how to take this discussion forward before the next meeting in Prague.

Before the next meeting in Prague at November 7-8, 2016, the main goal is to write an outline of a research proposal. All COST members will first be invited to express interest in collaborating and to share relevant information through e-mail (e.g. further wishes, previous experiences, papers and instruments). Claudia van Kruistum (the contact person) will collect and evaluate this information in order to write the outline. A Google Drive or Dropbox folder will be created so that others can join in the process.

At the meeting in Prague, the outline of the proposal can be used as a discussion document so that (i) further alterations can be made that suit the wishes of those who would be willing to collaborate, (ii) practical issues can be discussed, such as a timeline and funding options, and (iii) members that have not done so yet have the possibility to express interest and weigh in.

Reference
Gillen, J., & Cameron, C. (Eds.). (2010). *International perspectives on early childhood research: A day in the life.* UK: Palgrave Macmillan. 10.1057/9780230251373

Working Group 2

In between the 2nd and 3rd meetings of the DigiLitEY COST Action, actions were taken to promote the goals of the Group, and particularly the attempts to identify the state of current knowledge on young children's digital literacy practices in formal and informal settings, and to elicit new understandings on teachers' roles, stances and uses of digital literacies in formal educational early years settings. Hence, interested participants received through email lists of resources identified for the review of related research through initial database searches. They also had a chance to examine and contribute to an interview protocol, which had been distributed through email and made available for immediate use through a shared collaborative platform.

Duri and other interested delegates met in their respective working groups (WGs) over three sessions that took place on Friday, 18 March 2016. The three sessions of WG2 were organized in a way so that attention was paid to the themes and objectives of WG2 as those can be materialized through a review of literature/research, to areas of interest that may inform and expand the group's objectives and activities, and to issues relating to the continuing professional development of early literacy and primary teachers.

Discussion on the current state of knowledge in the area of young children's digital literacies in educational setting and in informal learning spaces (WG2 Objective 1) was introduced by the two co-chairs, who connected this to the preparation and expected publication of an extensive review of research in the next calendar year (2017). Lists of articles identified through a first round of database searches were distributed to participants to discuss possible key themes and identify gaps in knowledge in regards to young children's digital literacy practices in school settings and informal learning spaces. In the discussion that followed, participants suggested replacing the term "informal learning spaces" with "out-of-school contexts", challenging the distinction between formal (educational settings) and informal (learning spaces) and making the point that there might be three different types of learning (formal, non-formal, and informal), which might take place across spaces (e.g., school libraries may constitute in-school spaces of non- formal learning). Group members agreed that it was useful to (a) continue the discussion and problematization of this distinction as the review of research is developed, looking at what it might potentially offer to the broader discussion of the state of knowledge on related issues; and (b) to orient attention to the complexity of the out-of-school, non-formal learning spaces so that there is a balance between the group's objectives.

Other issues that were raised as points of interest in the review included:

- The definition of "digital literacy" as well as methodologies that may be used in each of the studies, and might serve as criteria for organizing the review of literature;
- The keywords and thus particular emphases of the published studies; it is important to note here that participants cautioned that the group and authors of the review should be (a) aware of their own assumptions or commitments in their use of keywords; and (b) alert to identify more keywords so that they become more analytic;
- Attention to frameworks that might be specific to spaces (e.g., libraries, schools, synergies between schools and libraries)
- The ways that users of digital technologies might be discussed (e.g., who is presented as an actor/agent, how librarians are collaborating with teachers, etc.)
- The need to consider research that is published not only in English but also in other national languages.

At the end of the session, the group revisited the keywords that were identified in the second meeting in Tallinn (see Notes from Meeting 2) and combined keywords that seemed too similar (e.g., early primary years, early childhood). The group then decided to split the work among members, who volunteered to take the lead in reviewing articles in distinct thematic areas.

The second working group session included the following presentations that aimed at informing the objectives of the group and expanding the scope of its actions:

- Artificial Intelligence in Education – Isabel Machado Alexandre
- Mediawise in Romania: A practitioner view on media literacy education – Nicoleta Fotiade
- Early childhood and primary teachers' digital biographies and pedagogical practices in Cyprus – Maria Chrysostomou, Rafaella Marouletti, Kalia Georgiou, Stavroula Kontovourki

The first and second presentations focused on "alternative" ways in which artificial intelligence and media literacy education may inform early literacy practices, while the third presented preliminary findings from the exploration of early years teachers' uses of and experiences with digital literacies.

The third working group session ran in conjunction with the Think Tank that was held in parallel to the WG sessions and focused on teachers' in-service training on and through digital tools. In the WG2 session, participants were asked to report on the following (included in the group's plan that was emailed to participants prior to the meeting):

- Problems faced in early practitioners' (and primary teachers') in-service training as it relates to digital literacy
- Key research questions that may be developed
- Possible paths of action.

Group participants reported on their individual and collective experiences in their respective countries to report that, across countries, there seems to be (a) an agreement that there is little consistency across pre- and in-service training opportunities; (b) that training focuses more on broad terms like ICT (rather than digital literacy) and the use of technologies rather than pedagogical implications; (c) references to digital literacy and pedagogical practices may be integrated across training courses as well as in curricula that guide practice; (d) teachers' engagement in relevant professional development rests primarily on their own interest and need; (e) there is little evidence/information as per the quality of training (especially when sessions are offered by private companies) or as per the implementation of ideas in classroom practice; (f) there is evidence of some efforts to engage teachers in meaningful professional learning, e.g., through the organisation of activities that provide teachers the opportunity to teach others, to share ideas, or develop plans of action at the school level.

In the last part of Working Group Session 3, WG2 was joined by Think Tank participants. Jackie Marsh referred to the work of the Think Tank and mentioned that a MOOC platform with cases deriving from teachers' action research could be piloted across countries if funding could be found. She added that other funding opportunities will be pursued, while a White Paper on teacher education and digital literacy will be developed to describe what's being done and what research questions are considered important in the early years teacher education.

Working Group 3

At the third COST meeting in Cyprus, Working Group3 discussed the importance of local oral language in children's digital reading materials. A comparative study (Bus et al., forthcoming) of apps from Turkey, Hungary and Holland found that the majority of children's apps are not in local languages (In Hungary 90% of oral language is in a foreign language, in Turkey it's 76% and Netherlands it's 50%). Considering the importance of oral language and cultural heritage in children's reading materials, these are alarming results. The working group is therefore interested in mapping more systematically the provision of apps/children's digital books in other European countries.

During the session, other WG members presented digital resources for literacy learning in their respective countries. Surveying e-reading content available in Flanders/The Netherlands Jan van Coillie composed a list of 440 titles of digital books and series for children aged 0-8 in Dutch. Trude Hoel and Iris Pereira presented examples of digital resources in Norway and Portugal. Discussing these results, the WG agreed to zoom in on the story reading apps available in selected European countries and their quality. Results of this preliminary analysis will be shared at the next COST meeting in Prague (autumn 2016). The research questions and analytical protocol were identified by the group.

Working Group 4

During the meeting in Cyprus, the group heard the presentation from Cathy Burnett on Examining (im)material relations in digital practices. A fruitful discussion followed and Cathy agreed to write a contribution for the DigiLitEY website by summer.

The rest of the meeting was dedicated to the literature review, the design of a comparative project on Internet of Things (IoT) toys, the planning of next meeting in Prague and publications.

The group agreed to conduct a research on the representations of IoT toys in public discourses across Europe, in order to understand whether and how the internet of toys has been embedded in the play discourses and cultures. Data collection will take place during the Christmas season 2016 (15 November-25 December) and will involve commentary debates and adverts. The countries who committed to do the research in Cyprus were: Iceland, Italy, Portugal, Romania, Slovenia, UK and Australia. (More countries joined the project after the meeting in Prague).

WG4 members also agreed to deliver the following outputs:
• The literature review
• A special issue of MED Italian Journal of Media Education "Young Children, Touchscreens and Literacy Practices"
• The comparative report from the IoT toys study and journal articles based on the same data
• A volume on IoT toys, edited by Giovanna Mascheroni and Donnell Holloway
• Other journal articles and special issues to be defined

Working Group 5

Research Database: An online Research Database repository was set up (See https://docs.google.com/forms/d/1Fd7jKPO5JGdWZM0vty-j7IMbobzl3DUOLmBuqZSicXA/viewform)

During a whole-group session in Cyrpus, David Poveda and Rosie Flewitt presented the outline of the online database to all of the delegates and requested that they uploaded information about their own research projects to it.

Policy Meeting

A policy meeting was organised by Brian O'Neill and Anca Velicu, the Stakeholder Managers. The participants were:

- Anastasia Economou, Director of Educational Technology Sector at the Cyprus Pedagogical Institute
- Irene Hadjilouca-Mavri, Chief Education Officer, representing the Minister of Education
- Yiannis Laoris, Cyprus Neuroscience and Technology Institute
- Christos Roushias, Officer at the Ed. Technology Sector at the Cyprus Pedagogical Institute)
- Spyros Sophocleous, Officer for Language Arts/Literacy Instruction at the Cyprus Pedagogical Institute

Main Ideas discussed:

- ICTs in education: an important focus for the research within the CIP, in particular in supporting teachers' digital skills
- The Ministry has responsibility for technical infrastructure and this is something that has received high priority.
- Projects: ATS2020 (http://www.ats2020.eu/), MENTEP (http://mentep.eun.org/)
- CPI primarily support 1st Grade and up (6+ years) with, till now, little involvement in the pre-primary policy for the pre-primary area is less developed but is now receiving attention.

- Need: for better coordination and integration of the many efforts taking place. Disparate initiatives take place and it is a need for an integrated approach involving the diverse stakeholders.

There is a disconnect between schools and the wider society, illustrated by attitudes towards incorporation of digital tools. Addressing the gap between school and society supposes engaging the key stakeholders in education.

4
Think Tank 1

**Continuing Professional Development
for Early Years Practitioners
Larnaca, Cyprus, 17th – 18th March, 2016**

The Cyprus meeting included a Think Tank meeting about the professional development needs of in-service teachers with regard to the development of digital literacy in early years settings and schools. The meeting was attended by researchers, teacher educators and providers of in-service education:

Professor Cathy Burnett, Dr Deidre Butler, Dr Bernadette Dwyer, Dr Rosie Flewitt, Dr Julia Gillen, John Hurley, Dr Eithne Kennedy, Dr. Dimitrios Koutsogiannis, Professor Eleni Kyza, Professor Heather Lotherington, Professor Jackie Marsh, Dr Stavroula Kontovourki, Professor Brian O'Neill, Dr Ioanna Palaiologou, Professor David Poveda, Dr Anca Velicu, Professor Charalambos Vrasidas

The aims of the Think Tank were identify what the gaps in knowledge are with regard to the in-service training of early years practitioners with regard to digital literacy and develop plans for research projects that could address the gaps in knowledge. Participants were invited to address three key questions:

- What are the problems faced in this area?
- What would things look like if these problems were solved?
- What would we need to do to achieve this?

This report outlines the key outcomes of the Think Tank in relation to each of the three questions.

What are the problems faced in this area?

- Digital literacy understood in a narrow way (mostly, in technical terms) – not organised around teachers' and students' identities; compartmentalisation of knowledge (and tools).
- Technologies continually change, which is linked to teachers' fear and loss of authority.
- Some teachers may want to find the 'right' answer.
- Some teachers believe that they are already doing it – or, that playing with technology is "just playing".
- There is a lack of workforce qualifications and regulation, with much variation across Europe.
- There is sometimes a lack of expertise and/ or confidence with digital media.
- Mindsets/ perceptions of childhood may limit teachers' desire to use technology.
- Resources – cost, inequity of distribution.
- Lack of vision in terms of policy for digital literacy.
- Not many resources available in languages other than English.

What would things look like if these problems were solved?

- Technologies embedded in everyday pedagogy and curriculum delivery (e.g. use of Twitter, blogs, digital stories).
- Sharing and collaborative learning in and out-of-school.
- Teachers researching children's practices and exploring those practices to understand what digital literacy is.
- Teachers explore new directions e.g. gamification of education; virtual reality.
- Bring your own device (BYOD) policies in place.
- Teachers learning that there are multiple answers and it is OK to say, "I don't know".
- Designers of interactive technology and educators working together to address complexities of designing for young children.
- Ongoing customised professional development to embed practice.
- Groups of teachers working together; self-directed learning communities.
- Use of both face-to-face meetings and online platforms.
- Utilisation of social network media.
- Professional development is localised, situated, not prescriptive

What would we need to do to achieve this?

- Put the pedagogy first.
- Develop a participatory process of curriculum development.
- Work with parents.
- Make boundaries more permeable.
- Be forward looking, rather than going with the status quo.
- Have a systemic approach which involves: clear policy; professional development; respect for the profession; parents' perspectives on media use.
- Develop professional developments programmes that can be conceptualised as a toolbox – a set of possibilities that can be used; an enabling, facilitating space (resources, multiplicity of possibilities), mapping on existing communities, allowing for emerging communities, communities adapted to different localities (providing the possibilities but allowing the locality to adapt those and research how this adapted).

Next Steps

Participants in the Think Tank agreed that there was a need to develop a professional development programme for in-service early years practitioners that blended online learning with face-to-face elements, including opportunities for action research.

Members of Working Group 2 were then asked to consider what the key principles of such professional development programme should be. The following elements were identified:

- There should be an emphasis on the development of collaborative professional networks.
- The programme needs to consider the history of school literacy/the historicity of school literacy and the ways that connects to what might be considered as "new".
- Similarly, it needs to consider the in/out-of-school traditions along with dominant understandings of technology and literacy that might interact/transact with the "new".
- The programme designers need to consider the attitudes of teachers toward technology and digital literacy; given their reluctance and even negativity towards technology, there is a need to consider teachers' ideological conflicts.
- Need to underpin the development of the programme theoretically (for example, see Stein's (2001) work on informatorium, pedagogicum, politicum, (plus) civilisatorium),
- Attention should be paid to teachers' identities in/from local and cosmopolitan/ globalised perspective.

- There should be consideration of the relationship between students and teachers – need to understand the profile of the teacher, esp. as it relates to digital literacy might help understand what we need for teacher training.
- The programme needs to acknowledge teachers' differentiated needs, yet challenge the distinction between veterans and younger practitioners as "digital natives".
- There should be consideration of issues relating to how skills may connect (or not) to teachers' pedagogical knowledge and ability to transfer skill to practice.

Working Group 2 will now collaborate with Dublin City University's Institute of Education in the development of plans for a project in which an existing MOOC developed by Dr Deidre Butler and team, "21st Century Learning Design", can be used and adapted by early years practitioners and embedded into a professional development programme in which practitioners undertake action research as a collaborative network.

5

STSMs

Round 1

Number of applications: 5

Number of STSMs awarded: 4

- Rita Brito, research visit to: University of Newcastle, UK
- Maria Joao Cuoto, research visit to: University of Minho, Portugal
- Dylan Yamada-Rice, research visit to: Vai Kai, Berlin
- Marketa Zezulkova, research visit to: University of Bournemouth

Round 2

Number of applications: 3

Number of STSMs awarded: 3

- Elisabete Barros, research visit to: University College London
- Katerina Kanellopoulou, research visit to: University of Athens
- Pekka Mertala, research visit to: University of Cyprus

All reports are available on:

http://digilitey.eu/events-activities/short-term-scientific-missions/

6
Presentations

Presentations made about the COST Action to:

October 2015 - Literacy and Contemporary Society Conference,
Cyprus Pedagogical Institute, Cyprus

November 2015 - EU Parliament, Brussels, Lifelong Learning Week, Belgium

December 2015 - Digital Literacy Conference, University of Padua, Italy

December 2015 - Finnish Educational Technology Conference,
Helsinki, Finland

May 2016 - TACTYC Meeting, York, UK

7

Publications

The following DigiLitEY Action publications were completed in Year 1:

Sefton-Green, J., Marsh, J., Erstad, O., and Flewitt, R. (2016). *Establishing a Research Agenda for the Digital Literacy Practices of Young Children: a White Paper for COST Action IS1410.*
http://digilitey.eu/wp-content/uploads/2015/09/DigiLitEYWP.pdf

Newsletter 1: October 2015
http://us11.campaign-archive2.com/?u=9a65b6728a4ee3d5f39e98090&id=3c338d6021

Newsletter 2: April 2016
http://us11.campaign-archive1.com/?u=9a65b6728a4ee3d5f39e98090&id=7ab7c36929

Working Group 1

Chaudron S., Beutel M.E., Černikova M., Donoso V., Dreier M., Fletcher-Watson B., Heikkilä A.-S., Kontríková V., Korkeamäki R.-L., Livingstone S., Marsh J., Mascheroni G., Micheli M., Milesi D., Müller K.W., Myllylä-Nygård T., Niska M., Olkina O., Ottovordemgentschenfelde S., Plowman L., Ribbens W., Richardson J., Schaack C., Shlyapnikov V., Šmahel D., Soldatova G. & Wölfling K., 2015). *Young Children (0-8) and digital technology: A qualitative exploratory study across seven countries.* Joint Research Centre, European Commission. Accessed at http://publications.jrc.ec.europa.eu/repository/handle/JRC93239

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Marsh, J., Hannon, P., Lewis, M. & Ritchie, L. (2015). Young children's initiation into family literacy practices in the digital age. *Journal of Early Childhood Research.* Published online before print June 18, 2015, doi: 10.1177/1476718X15582095

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Karol Bidziński, Alicja Giermakowska, Impuls Oficyna Wydawnicza, Kraków pp. 215-225, ISBN 978-83-8095-070-2.

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