

DigiLitEY: Short-Term Scientific Mission (STSM) – Report

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The **aim** of my visit as stated in my application and motivation letter was to gain an insight into methodological, theoretical and technical aspects of research that I could apply to the data collection of my PhD research on mobile technologies and learning, I am particularly interested in interdisciplinary learning and multimodal literacy and was looking forward to become acquainted with projects at the UCL Knowledge Lab that could provide such a connection.

[The Institute of Education](#) in London is a home to 6 academic departments and over 30 research centers, of which [UCL Knowledge Lab](#) is one. The IoE has been in the forefront of education and social science research, and has recently been ranked as the world number one for Education for the fourth year running, in the latest QS World University Rankings by Subject. The UCL Knowledge Lab interdisciplinary digital research, study and design centres around six themes at the heart of contemporary debate on digital education (UCL Institute of Education, 2016):

- Designing smart technologies for teaching and learning
- Coding and creativity
- Playful learning and games
- Designing for diversity
- Multimodal interaction
- Digital cultures and media literacy

The UCL Knowledge lab is connected to the Culture, Communication and Media department, where some of the approximately 30 researchers lecture and operate research projects. The department runs the following MA courses: [Education and Technology MA](#) with [course outline](#) and [Digital Media, Culture and Education MA](#) with [course outline](#). It was interesting for me to look through the prospectus and to learn about the emphasis of study.

The UCL Knowledge Lab's mission is to understand and to develop digital technologies to support and transform education (Institute of Education, 2017). It's purpose is to devise new pedagogies, design and implement innovative digital media and smart technologies for teaching and learning, and to inform policymakers and educational stakeholders.

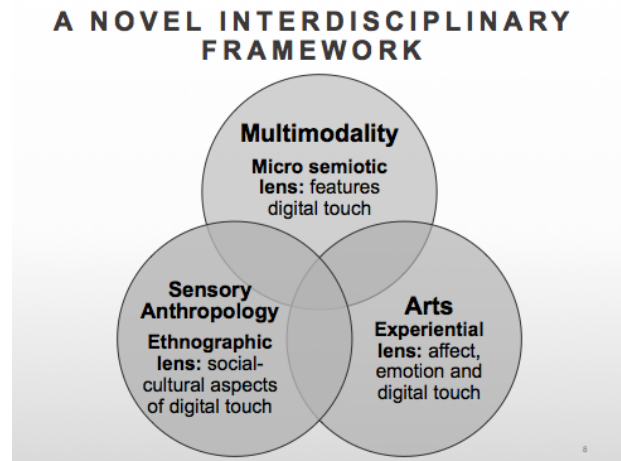
My visit to the UCL Knowledge Lab came at an invitation from the lab's director, [Carey Jewitt](#), professor of Learning and Technology, who kindly greeted me on arrival and enabled me to contact several researchers at the lab and to attend seminars and lectures, during the two weeks of my visit.

Carey Jewitt leads a new project: [IN-TOUCH: Digital Touch Communication](#) – that aims to explore how the digital is reshaping touch with a focus on health and well-being, work, learning and personal relationship, with devices that enable various communication with others, information and objects in new tactile ways for work and learning, through to wearable and sensory devices that support touching at a distance (UCL Knowledge Lab, 2017b). The project invites cross-disciplinary research, new methods and insights – and will most likely shed a light on various social practices and the potential of touch-based devices for learning, such as the iPad. One aspect of research in the IN-TOUCH project are smart textiles or e-textiles, where electronics, conductive materials and sensors are woven into fabric, and respond to movement and touch (Intouchdigitaltouch, December 14, 2016). This will be interesting to follow in the future, especially in relation to developments in Art and VR and potentially for learning.



(UCL Knowledge Lab, 2017a)

As I am concerned with touch based devices (tablets and smart phones) in my research I was actively looking for ways of studying and understanding learning methods that students are developing with these devices and to evaluate their learning outcomes. I found it interesting to study the method that the IN-TOUCH team was developing that attempts to integrate three scholarly 'lenses' of sensory anthropology, arts and multimodality:



(UCL Knowledge Lab, 2017c)

This seems quite relevant to some of my data – especially data collected in my research case of learning with the Biophilia apps (björk, 2011), where STEAM learning is carried out with iPads and a touch screen is instrumental in studying and creating new meaning in inter-disciplinary learning processes.

The emergence of mobile and ubiquitous technologies has led to increased interest in embodied cognition, the body in the digital environments and the senses. During my visit I was able to study and discuss some early research results of IN-TOUCH and other projects and to read articles, such as *Technology and embodiment: relationships and implications for knowledge, creativity and communication* (Price, Roussos, Falcão, & Sheridan, 2009) and *Exploring methodological innovation in the social sciences: the body in digital environments and the arts* (Jewitt, Xambo, & Price, 2016). I did also received some excellent advice and recommendation from Carey Jewitt for further reading on aspects of Multimodality, Science teaching and Social Semiotics, that I was able to explore at the lab, such as a new book on the subject: *Introducing Multimodality* (Jewitt, Bezemer, & O'Halloran, 2016) and *The Routledge Handbook of Multimodal Analysis* (Jewitt, 2011) and more. These were the results of the [MODE project](#) (2011-2015) – an earlier research and training on multimodality (UCL Institute of Education, 2017c), funded by the [Economic and Social Research Council](#) and operated as one of the nodes of the [National Centre for Research Methods](#).

The project's archives provides various resources for study that I feel I can make use of in my research (UCL Institute of Education, 2017b).

Several other topics were discussed, such as affect, media & emotions as research topic (Florvil, 5th January, 2017), Robert Plutchik's wheel of emotion (Wikipedia, 10th February, 2017), evolutionary theory of emotions (Hammond, 2006) and sources of study such as Sensory Studies and The Senses & Society Journal (Sensory Studies, 2017) and The Design & Emotion Society (Design & Emotion Society, 2017). We also discussed some aspects of my research and ways to approach multimodal aspects of it, as well as a study of childrens' drawings (Mavers, 2013).

I was able to introduce my research to other researchers at the lab. I had a meeting with [Dr John Potter](#), a reader in Media in Education. We discussed the MA courses, gaming in education and the collaborative network DARE (Digital Arts Research Education), a research partnership focused on the digital arts in education, led by the UCL Institute of Education and the British Film Institute, involving 27 researchers in different universities and listing 13 projects (UCL Institute of Education, 2017a). We touched base on projects such as guerilla film making and children and curating, where children document their own creative experiences. We discussed Nordic collaboration and various research initiatives related to digital literacies and multimodality – and research efforts of [David Buckingham](#), [Cathy Burnett](#), [Sue Cranmer](#), [Oystein Gilje](#) and [Theo Bryer](#) (Potter & Bryer, 2016).

I also had interesting discussions with Andrew Burn, [professor of english, media and drama education](#). He is the director of the [DARE centre](#) (Digital | Arts | Research | Education) and the [MAGiCAL projects](#), an enterprise developing game-based software for education. I was able to relate to him my background in game design & production and my involvement with the current Nordplus Horizontal project: [Digital Computer Games for learning in the Nordic countries](#), a collaborative resource project for digital game-based learning. We discussed how cross-sectional collaboration on games can benefit schools and learning (Burn, 2016) and several publications on the subject (Burn, 2009; Burn & Durran, 2007; Burn & Richards, 2013). I was invited by Burn to test some of the game-creation tools that were in development in MAGiCAL project, for teacher training at the University of Iceland / School of Education, which I look forward to. Burn also described other projects to me, such as [Playtimes](#) at the British Library, [The Story Engine](#) and [Playing Beowulf: Gaming the Library](#). We also discussed to some extent his multimodal theory of 'kineikonic' mode, where the

emphasis is on the grammar of the moving image and the interplay of all modes that contribute to it (Burn, 2013), which I might be able to consider for my research.

I had a talk with a few of the emergent researchers at the lab, such as [Jennifer Rodes](#), [Senior Lecturer in Digital Technologies in Education](#), on makerspaces and research on gendered participation in such environments and [Mutlu Cukurova](#), a research associate, on [PELARS](#), a project that enables STEM teaching and learning, and [EDUCATE](#), where EdTech SMEs and researcher-entrepreneurs will work together with research and business experts. We all shared an interest in making and makerspaces – and I expect that we will stay in touch and continue to share information on these topics.

Finally, I had a discussion with [Sara Price](#), professor of digital learning. We talked about emerging digital technologies and their potential to enhance teaching and learning through new forms of interaction and thinking. We also discussed the use of iPads and touch screens in relation to my data from the Biophilia research and how it could be studied and analysed (Crescenzi, Jewitt, & Price, 2014; Price, Jewitt, & Lanna, 2015).

I was invited to attend seminars from guest lecturers, such as one given by [Alex Taylor](#) (a sociologist in the Human Experiences & Design group at Microsoft Research, Cambridge): [Being Capable](#), where interesting discussions developed on how we understand capability, capability with machines and of animals (sheep)! At the lab were also several visiting Scandinavian researchers that gave short talks. I attended the talks of [Lea Tilde Rosenlund](#), from the University of Southern Denmark, and [Liselott Aarsand](#), professor at NTNU, Norway. Furthermore, I had interesting discussions with [Pal Aarsand](#), also a professor at NTNU, on computer games and gaming, a research topic we both share.

During my visit I was able to attend a lecture at the Culture, Communication and Media department on mobile learning, given by [Norbert Pachler](#), professor of teaching and learning and [Pro Director at UCL](#) and professor [Ben Bachmair](#) professor emeritus, and to meet some students. Following the lecture I had a talk with professor Ben Bachmair, who is a German theorist on mobile learning, and Mrs [Deirdre Diffley-Pierce](#), lecturer in English in Education. I have followed up on this conversation and received a potential invitation to come to London at some point next year and give a talk.

I am grateful for having had the opportunity to visit the UCL Knowledge Lab and thankful to the researchers for taking the time to discuss my research topics and methodologies of multimodal

research. Overall, this visit was a fruitful one, it brought many new aspects of digital technologies for learning, sensory perception in relation to digital technologies and multimodality to light, that will undoubtedly benefit my PhD studies and research efforts.

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