**Introduction**

The *Call to Action* from EdusummiT 2009 included two issues impacting the future of assessment that we would like to advance through discussions in the June 2011 meeting:

- To establish a clear view on the role of ICT in 21st century learning and its implications for formal and informal learning.
- To develop new assessments designed to measure outcomes from technology enriched learning experiences.

**Research update**

Since assessment exists in a complex dynamic relationship with curriculum, pedagogy, and the needs and demands of the world outside of schools, a better understanding is needed about ICT’s role in 21st century learning and assessment, especially in relation to both the formal and informal settings where 21st century skills may be acquired. Innovative developments in assessment for example, can support or even drive developments in both curriculum and pedagogy. In new assessments designed to measure complex and higher order outcomes from technology enriched learning experiences, there is a need for alternative assessment approaches and instruments, along with an understanding of the impact of IT on assessment.

We plan to discuss the nature of assessment and the effects of technological advances on assessment. For example, new technologies can support both formative and summative assessment and those advances are increasing the range of possibilities for assessments. Formative assessment can be enabled by online peer assessment systems, adaptive feedback from computers, self-assessment and systems that combine teacher, peer and automatic feedback. Elements of assessments that present significant technological challenges for automatic marking include: hand-drawn diagrams to illustrate answers; collaborative problem solving activities; and advanced essay answers where quality measures are negotiated in academic communities. Therefore ensuring that the focus of assessment remains on designing valid instruments, approaches and interactions that assess important knowledge and skills, rather than being seduced by potential time and cost-savings, may be a significant challenge.

A characteristic of ICT enabled assessments, especially in embedded contexts such as working online problems, playing a digital game, or working collaboratively with a simulation to explore and discover patterns in data, is the creation of massive amounts of data about the interactions. Is this a “game changer” for educational assessment? Are there other elements to consider that impact the future of teacher education? We plan to discuss the attendant challenges to analysis, implementation and teacher professional growth.
Issues, unresolved questions & concerns

What are we assessing? Which are the elements of 21st Century learning that are not currently being assessed adequately? What is the balance of individual versus collaborative effort that should be measured, and how?

Summative or formative purposes? How can formative e-assessment enhance learning opportunities? Can assessments serve both formative and summative purposes? Can we design formative assessments and extract information from them for summative purposes? How? Does e-assessment facilitate this?

How important are summative assessment examinations? What are summative assessment purposes in the 21st Century? Summative assessments tend to dominate our education systems, terrorise our young people and intimidate teachers. Many universities and employers claim that they are not fit for purpose and prefer to use entrance examinations. Should we therefore be looking for alternatives or should we reconsider whether summative information is needed at all? Should we consider entrance assessments instead?

How should we assess? Which e-assessment methods should we adopt and for what purposes? What combinations of e-assessment methods and more traditional methods might be suitable? How often should we assess?

What are the unique affordances of ICT as a handmaiden to assessment? What are the contexts of informal ICT use that offer assessment opportunities? What should researchers know how to do with massive assessment datasets that represent a single learner?

What are the game changers for teacher education? Given our discussions, what should teacher educators know and be able to do with this knowledge about 21st C learning contexts, ICT, and assessment?

N.B. This is a summary of a developing paper that we will work on available at:
https://docs.google.com/document/d/1ivbaZBgEwV6Dld3d2w5ISScxyxMRM7orhZMGhNm6OSdc/edit?hl=en&authkey=CPebxusC
and you are invited to contribute.