TWG 9: Curriculum - Advancing understanding of the roles of CS/Informatics in the Curriculum
Research Plan

Group leaders: Mary Webb, King’s College London (Convenor); Eric Bruillard, ENS Cachan – IFÉ, Paris; Yousra Chtouki, Al Akhawayn University in Ifrane; Margaret Cox, King’s College London; Charoula Angeli-Valanides, University of Cyprus; Andrew Fluck, University of Tasmania; Richard Millwood, Trinity College, Dublin

Focus, rational, and scope
In the light of recent developments in curricula, across the globe, in which the importance of key concepts, processes and skills of computing have been re-examined and Computer Science as an underlying academic discipline has been emphasised, we aim to examine critically the importance of such developments in current and future education policy and practice.

Key questions to answer:
1. What is the purpose of curricula for Computer Science/Informatics? (Growth of digital economies, vocational, digital citizenship)
2. How should curriculum designers decide on the curriculum content and focus for Computer Science/Informatics?
3. What is the theoretical basis for the design of curricula for Computer Science/Informatics and what are the implications for the design of the structure and sequencing?
4. What is the place of "computational thinking" in the curriculum?
5. How should the Computer Science curriculum serve the needs of future Computer Scientists as well as the needs of all other students?
6. How does Computer Science/Informatics relate to other aspects of the curriculum? (Curriculum integration versus subject specific elements? Importance of CS/Informatics compared with computers as learning tools.)
7. What are the key challenges, issues and ways forward for policymakers, teachers and other stakeholders in relation to curricula for Computer Science/Informatics?

Objectives
We aim to answer the key questions through a review of the following:
1. Key national and international developments in Computer Science/Informatics curricula
2. Key developments and policy issues in Asian-Pacific contexts.
3. Current thinking/research/theory on the rational for learning Computer Science/Informatics
4. Current thinking/research/theory on key developmental and pedagogical issues for learning Computer Science/Informatics
5. Current thinking/theory regarding curriculum design in general
How would your group’s research be related to policy and practice?
Our objectives (above) focus on policy review and outputs (see below) include a policy paper and articles focused on policy and rational.

Outputs
1. Discussion paper—background paper which will form the basis of discussion at the EDUsummiT. (Final deadline August 15, 2015)
2. Policy paper (1-2 pages) (Final deadline August 15, 2015)
5. Further articles and conference presentations after EDUsummiT 2015 to be decided.

Ways of communication within your group and division of labour (who does what)

Timeline

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<thead>
<tr>
<th>Item</th>
<th>Start</th>
<th>Finish</th>
<th>Personnel:</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Working Paper</td>
<td>10/2014</td>
<td>Not fixed</td>
<td>Authors: all group leaders</td>
<td>Extensive detailed paper to be drawn on for other papers</td>
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<td>Discussion paper</td>
<td>04/2015</td>
<td>15/08/2015</td>
<td>Authors: all group leaders, Mary Webb and Andrew Fluck</td>
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<tr>
<td>Policy paper</td>
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<td>15/08/2015</td>
<td>Authors: all group leaders</td>
<td>1-2 pages</td>
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<td>EDUsummiT Panel Vilnius July 2015</td>
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<td>Mary Webb</td>
<td>Aims – to generate ideas and comments</td>
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<tr>
<td>Article for Journal special issue</td>
<td>08/2014</td>
<td>?</td>
<td>Group leaders and others?</td>
<td>Drawing on working paper</td>
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