

The University of Edinburgh
The Moray House School of Education
School Postgraduate Studies Committee

11 March 2015

MSc 20 credit course: Children and Technology

Brief description of the paper

The course provides an introduction to understanding, analyzing, and critically evaluating the role of technology for children in the Early Years and up until the end of Primary school age (0-12 years). The rationale of this course is provide the knowledge and understanding to critically reflect upon the role of technology in children's lives both at home and school. The course will introduce students to many unresolved questions in this area, where students' own experiences will engender a powerful context for critical thinking. The course ultimately aims to provide an important and forward-looking contribution to other MSc programs at MHSE.

Action requested

To approve / make suggestions

Resource implications

Does the paper have resource implications? Yes

Section 12. Some Computing education resources.

Risk assessment

Does the paper include a risk analysis? No

Equality and diversity

Have due considerations been given to the equality impact of this paper? Yes

Freedom of information

Can this paper be included in open business? Yes

Any other relevant information

This course has been co-developed with Hamish MacLeod, with contributions from Lydia Plowman and Judy Robertson

Originator of the paper *Andrew Manches; Chancellor's Fellow*

COURSE APPROVAL FORM: October 2014

www.ed.ac.uk/schools-departments/humanities-soc-sci/academic-administration/learning-teaching/curriculum-assessment/approval

1. COURSE NAME			
Children and Technology			
2. Rationale			
<p>Technology plays an increasing role across society, indirectly and directly influencing children's lives. The increasing ubiquity and accessible nature of technology means that children are exposed to, and often become users of, technology from the earliest age. This has created new markets, such as early learning applications, or toys that have been digitally augmented. Whilst these developments have caused excitement, they have also raised a range of pertinent questions such as how does technology mediate children's physical and social interaction, or what responsibilities do parents have in providing or regulating children's access.</p> <p>In school, questions have moved from 'if' technology should be used to support learning, to 'how' it should be used. With the constant evolution of technologies, this question needs to be constantly revisited.</p> <p>The rationale of this course is provide the knowledge and understanding to critically reflect upon the role of technology in children's lives both at home and school. The course will introduce students to many unresolved questions in this area, where students' own experiences will engender a powerful context for critical thinking.</p>			
3. Business Case approved		4. Library Resources approved	
5. COURSE OUTLINE			
5.1 School	Moray House School of Education	5.2 College	College of Humanities and Social Sciences
5.3 Course Type	Standard	5.4 Availability	PG
5.5 Credit level	11	5.7 Credits	20
5.6 Normal Year taken			
5.8 Home	Education	5.9 Other	Informatics

Subject Area		Subject Area	
5.10 Mode of Study	Lecture, Seminar, Workshop, independent	5.11 Course Level	PG
5.12 Summary Description			
<p>This course provides an introduction to understanding, analyzing, and critically evaluating the role of technology for children in the Early Years and up until the end of Primary school age (0-12 years) in both home and school contexts. The course will cover the role of technology in children's everyday lives; and the more explicit use of technology to enhance learning, including children learning to be creators, as well as critical consumers, of technology.</p>			
6. Entry Requirements (not applicable to Visiting Students)			
6.1 Pre-requisites	n/a		
6.2 Co-requisites	n/a		
6.3 Prohibited combinations	n/a	6.4 Other requirements	n/a
7. Information for Visiting Students			
<p>It is not necessary to have any prior knowledge of using technology with children or in education</p>			
8. Course delivery Information			
8.1 Delivery period	Jan-March 2016	8.2 Learn enabled	Yes
		8.3 Quota	20
8.4 Days & Times of whole class sessions	Tues 10am Lecture; Thursday 10am Seminar (tbc)		
9. Detailed description			
9.1 Course Description			
<p>The course is intended as an introduction to the role of technology in children's lives at home and school. The course can be considered in terms of three main areas.</p> <p>Technology in children's lives</p> <p>The first four sessions will focus on the role of technology in children's everyday lives from the society they live in to their own homes. The course will provide students with an understanding of the prevalence of technology, particularly for younger children, and the need to consider how different factors (e.g. parents) influence children's interaction with technology.</p>			

Technology Enhanced Learning

The second four sessions will focus on the use of technology to specifically support learning. This will mainly focus on technology in educational contexts e.g. school, and address the importance of critically reflecting upon definitions of learning in this context. The course will provide students with an overview of the impact of technology in education, and the challenges of considering all the factors influencing such impact (e.g. teacher skills, infrastructure).

Children as creators of technology

Two sessions and a workshop will look at the increasing emphasis on children learning the skills to understand and generate new technologies – from programming outside of school to the introduction of computing as a curriculum subject in different national curricula. Students will be given the opportunity to explore types of technology to support a critical perspective of how such experiences may support children's wider development.

In all three areas above, there will be an emphasis on examining the research methods used to investigate the role of technology, and the challenges involved in this particular field of research (e.g. the evolving nature of technology, difference in how technology is integrated). This will develop students' critical reflection of various claims made for, and against, children's use of technology at home and school.

There will also be a final session in this course looking at the ethical and safety issues surrounding research and the use of technology by children (e.g. online safety, data collection).

The course will benefit from illustrations from recent world-leading research conducted at Moray House, where students will be encouraged to become familiar with the research activities, such as through the current website

<http://www.children-and-technology.ed.ac.uk>

9.2 Breakdown of learning & teaching activities

Total Hours: 200

Lectures: $11 \times 1 = 11$

Seminar/Tutorials: $9 \times 1 = 9$

Online Blog (contribution to extra class online discussions) $10 \times 0.2 = 2$

Fieldwork: 0

Practical: 2

Summative Assessment hours:

Programme level Learning & Teaching hours:

Directed learning & independent learning hours: $200 - 11 - 9 - 2 - 2 = 176$

9.3

Additional information

Feedforward activity before the 1st session (critical reflection of own technology use (digital/analogue in childhood))

9.4 Weighting of summative assessments	<ol style="list-style-type: none"> 1. Online blog participation – 10% 2. Collaborative presentation – 20% 3. 2,000 word essay – 70% 		
9.5 Exam information			
Exam diet	Paper name	Hours: minutes	Stationery requirements
Resit information			
10. List of Learning Outcomes			
LO 1	Demonstrate knowledge and critical understanding of theories, principles and concepts concerning the role of technology in the early years and demonstrate critical awareness of current debates surrounding technology for this young age group. (Knowledge and Understanding)		
LO 2	Collaboratively plan, execute and present a professional evaluation of an early years learning technology context (Practice applied K&U)		
LO 3	Critically identify, define, conceptualise and analyse the complex range of factors influencing young children's interaction with technology. (Generic Cognitive Skills)		
LO 4	Use a wider range of ICT applications to enhance and support collaborative work both in co-located sessions and online. (Communication, ICT, Numeracy Skills)		
LO 5	Take responsibility for own work and some responsibility for the work of others whilst working in peer relationships. (Autonomy, Accountability and Working with others)		
11. Detailed Assessment Information			
11.1 Formative Feedback Event (Nature and Timing)			
<ul style="list-style-type: none"> • Prior to Session 1, a 500 word critical summary drawing on personal experience • Session 3, a collaborative presentation 			
11.2 Elements Of Summative Assessment (With Weightings)			
<ol style="list-style-type: none"> 1. Online blog participation – 10% A question will be posed at the end of each lecture to encourage online discussion between lectures. This mode of discussion is intended to compliment the co-located seminar, in particular, encouraging written comments from those less confident in verbal. A mark will be awarded for commenting each week (participation), regardless of quality of comment. 			

2. Collaborative presentation – 20%
Students will be asked to provide a presentation critically reviewing a particular context of children and technology (following a feed forward similar task). Marks will be awarded to the group and then allocated by the group between individuals. This form of assessment has precedent and is intentionally assessing collaborative skills, as well as presentation/content.

3. 2,000 word essay – 70%
Students will be given a selection of academic papers focusing on children and technology and asked to critique, drawing upon learning throughout the course.

11.3 Relationship Between Assessment and Learning Outcomes

Online Blog: LO4 and LO5
 Collaborative Presentation – LO1-5 (particularly LO2 and LO5)
 2000 word essay - LO1-5 (particularly LO1 and LO3)

11.4 Relationship to Programme Assessment Spine/Plan

1st year	2nd year	3rd year (typical)	4th year (typical)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Exam	<input type="checkbox"/> Exam	<input type="checkbox"/> 50% Exam	<input type="checkbox"/> 50% Exam
<input type="checkbox"/> Essay	<input type="checkbox"/> Essay	<input type="checkbox"/> 50% Essay	<input type="checkbox"/> 50% Essay
<input type="checkbox"/> Presentation	<input type="checkbox"/> Presentation	<input type="checkbox"/> 50% Exam	<input type="checkbox"/> 50% Exam
<input type="checkbox"/> Exam	<input type="checkbox"/> Exam	<input type="checkbox"/> 50% Essay	<input type="checkbox"/> 50% Essay
<input type="checkbox"/> Essay	<input type="checkbox"/> Essay	<input type="checkbox"/> 50% Exam	<input type="checkbox"/> 50% Exam
<input type="checkbox"/> Presentation	<input type="checkbox"/> Presentation	<input type="checkbox"/> 50% Essay	<input type="checkbox"/> 50% Essay
		<input type="checkbox"/> 50% Exam	<input type="checkbox"/> 50% Exam
		<input type="checkbox"/> 50% Essay	<input type="checkbox"/> 50% Essay
		<input type="checkbox"/> 100% Project	<input type="checkbox"/> 100% Dissertation
		<input type="checkbox"/> 50% Project	
		<input type="checkbox"/> 50% Essay	

11.5 Main Graduate Attributes

A. Research and Enquiry

- be able to identify, define and analyse problems and identify or create processes to solve them
- be able to exercise critical judgment in creating new understanding
- be ready to ask key questions and exercise rational enquiry
- be able to critically assess existing understanding and the limitations of their own knowledge and recognise the need to regularly challenge all knowledge
- search for, evaluate and use information to develop their knowledge and understanding

- have an informed respect for the principles, methods, standards, values and boundaries of their discipline(s) and the capacity to question these
- understand economic, legal, social, cultural and environmental issues in the use of information
- recognise the importance of reflecting on their learning experiences and be aware of their own learning style

B. Personal and Intellectual Autonomy

- be open to new ideas, methods and ways of thinking
- be creative and imaginative thinkers
- be able to identify processes and strategies for learning
- be independent learners who take responsibility for their own learning, and are committed to continuous reflection, self-evaluation and self-improvement
- be able to make decisions on the basis of rigorous and independent thought, taking into account ethical and professional issues
- be able to use collaboration and debate effectively to test, modify and strengthen their own views
- be intellectually curious and able to sustain intellectual interest
- be able to respond effectively to unfamiliar problems in unfamiliar contexts
- have a personal vision and goals and be able to work towards these in a sustainable way

C. Communication

- make effective use of oral, written and visual means to critique, negotiate, create and communicate understanding
- use communication as a tool for collaborating and relating to others
- further their own learning through effective use of the full range of communication approaches
- seek and value open feedback to inform genuine self-awareness
- recognise the benefits of communicating with those beyond their immediate environments
- use effective communication to articulate their skills as identified through self-reflection

D. Personal Effectiveness

- appreciate and use talents constructively
- be able to create and harness opportunities
- be able to manage risk while initiating and managing change
- be responsive to their changing surroundings, being both flexible and proactive
- have the confidence to make decisions based on their understandings and their personal and intellectual autonomy
- be able to flexibly transfer their knowledge, learning, skills and abilities from one context to another
- understand social, cultural, global and environmental responsibilities and issues
- be able to work effectively with others, capitalising on their different thinking, experience and skills
- work with, manage, and lead others in ways that value their diversity and equality and that encourage their contribution to the organisation and the wider community

12. Organisation

Course organizer	Andrew Manches	Course secretary	tbc
Exam Board	tbc	Marking Scheme	Common

Convenor			
Taught in Gaelic?	No	Additional costs	Computing resources (building on current resources)
13. Additional Information			
14. Keywords			
Children; Technology; Early Years; Interaction; Computing			
15. Course proposal information			
Course proposer	Andrew Manches		
Url for supporting documentation	Tbc (but will be developed within http://www.children-and-technology.ed.ac.uk/teaching/)		
16. School Specific Requirements			
<p>This section can be expanded and adjusted as required for schools to include material that is specific to their own local requirements or for programmes that may have, e.g. a professional requirement</p>			