

General Education Interdisciplinary Courses (GEICs)

Reflection on the pilot of GEI4002
“Who are the educators in the 21st Century”

(Updated on 23 June 2020)



GENERAL EDUCATION
Interdisciplinary
Courses



General Education Office
通識教育事務處

Course Marketing issues



GEI 4002 Who are the Educators in the 21st Century?

CAN MACHINES REPLACE TEACHERS?

What do we mean by "Educators"? Do they exist beyond the boundaries of classrooms? Can they be non-humans (e.g. robots and AI)? This GE course is a journey to discover the meaning of "Educators" across times and spaces in a wide range of disciplinary perspectives through case studies, role plays, debates and dialogues.

Lecturers: Dr. YP Yau Wing, Stephen, Dr. Lai Fung Wing, Dr. Nick Chan

Available in Semester 1, 2019-20
Online Course Registration Period:
12 - 15 October, 2019
(For undergraduate Year 2 or above)

Course website: edu.hk.hk



GEI 4002: Who are the educators in the 21st Century ?
Semester 1 (or 2) 2019-20

Your Learning Goals

Upon completion of this course, students will be able to:

- CILO₁ Understand and **critique** the ever-evolving meaning of 'educator' along human history in **both** the East and the West;
- CILO₂ Critically **re-define** the roles and identities of educators in the 21st Century under the contexts of globalization, the Learning Paradigm and the Fourth Industrial Revolution;
- CILO₃ Apply and **integrate** key concepts, theories and knowledge to construct arguments in relevant contexts from cultural-historical, societal and technological **perspectives**; and
- CILO₄ Reflect on personal experience to **formulate** their **own philosophy** of education as a human educator in the 21st Century.

Interdisciplinary

Assessment Tasks	Weighting (%)	CILO
<p>(a) Individual Learning Journal:</p> <ul style="list-style-type: none"> - 1st draft of Individual Learning Journal* (500-700 words) - Final version of Individual Learning Journal (including reflecting on the debate process and own learning**) (1,500-1,800 words) 	<p>10%</p> <p>40%</p>	<p>CILO_{1, 2, 3, 4}</p>
<p>(b) Group debate on a selected topic (e.g., Will technology replace humans in education in the future?)</p>	<p>40%</p>	<p>CILO₃</p>
<p>(c) Active participation in class, online/ off line discussions, group work, etc.</p>	<p>10%</p>	<p>CILO_{1, 2, 3, 4}</p>

Our Vision

We will further enhance our role as a leading university in the Asia Pacific region and beyond, with a focus on educational research, development and innovation. We will continue to raise our profile and impact locally, regionally and internationally through our high quality research and scholarship. **We are committed to nurturing outstanding and caring educators and professionals who contribute constructively to sustainable social and economic development in Hong Kong and beyond.**

Education University of Hong Kong



Educators = ?



Reflecting the vision

Concept Map of the GEIC course, “Who are the Educators in the 21st Century”

Interactive process: with Topics/Students

2. Does the term ‘educator’ refer only to those who teach in classrooms?

The **Learning Paradigm** of early 21st Century, **Globalization** (e.g. Public Pedagogy, Edu-tainment)

Educators at home

Educators in the world of work

Educators in the communities

Latest research and trends (e.g. AI, Robotics, ...)

Can Technologies replace human educators in 21st Century?

Debate

3. Can Educators be non-humans? Why? What are the controversies?...

1. What does the term ‘Educator’ mean in human history?

Etymologies of ‘educators’ and related notions, e.g. ‘coach, mentors, teachers.

History and meaning of educators in **East & West** (e.g. role models, scholars)

Role and Impact of Technology under the **Fourth Industrial Revolution**

Human role and re-positioning in technology-enhanced society

Key features of GEI4002: course design

- Three units of content teaching
- Debate as core assessment activity
- Pedagogical tools:
 - “Uncles Stephen” time –
 - Games and role plays
 - Robots
 - Use of Future Classroom (COVID-19)
 - Inter-disciplines cards
 - “Building arguments” session
 - Group Tutorials

Uncle Stephen Time

Design Features of GEI4002

Who are Educators in the 21st Century

Debate: Can Technologies replace Human Educators
Constructing Arguments



	1. What does the term 'Educator' mean in human history?	2. Does the term 'educator' refer only to those who teach in classrooms?	3. Can Educators be non-humans?
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Reflectivity GILO1&2	What is it like to be a bat?... Discussion		
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Storytelling GILO4 ab	Individual Learning Journal		
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Interactivity GILO4a, 5	Philosophies related to AI (e.g. 'Can machine think?')		
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Multisensory Life GILO6&7	Teaching Inter-disciplinarity	Teach Interdisc	
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Entertaining GILO3	Rock Opera	Education Plus/ De-schooled concepts	Future Classrooms Experiential Learning
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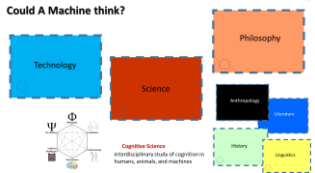
Automation Immunity
Card Game

Robots



Co-teaching

Playscript



Positive Feedback

From students:

- Course content – the course **content was carefully prepared through collaboration** among three lecturers, and the **learning environment and atmosphere were good** (via Student Focus Group Interview on 27 April 2020).

From lecturers:

- **Communication channels for co-planning** – lecturers shared resources and communicated through face-to-face meetings, share-drive, Moodle and emails. For example, all teaching materials were uploaded onto Moodle so that all lecturers could share and review each other’s lecture notes to make better connections with their own parts. Besides, due to the COVID-19, ZOOM meetings had been used for discussing important issues, such as assessments, rubrics and debate arrangements (via Lecturer ISSCM on 18 March 2020).
- **Course pre-meetings** – lecturers had good preparations before each meeting, which greatly enhanced the efficiency of their meetings (via Lecturer ISSCM on 18 March 2020).
- The use of pedagogical guidelines – the GEIC pedagogical guidelines were useful for guiding the implementation of the course (via Lecturer ISSCM on 18 March 2020).

From Course Observer:

- Collaboration and interaction in class – the lecturers **demonstrated good efforts in co-planning and close collaboration** (via Class Observation on 23 March 2020).

Co-planning

Positive Feedback

From both students and lecturers:

- Enhance the interaction in class – there were **at least two lecturers in each lesson**. The LIC would join other lecturers' lesson(s) to **provide additional information to students and asked questions that were found to be highly insightful by students**. Also, the lecturers would ask each other questions from their specialized perspectives and challenge ideas and concepts being presented. Students **were inspired to think from different perspectives** (via Student ISSCM on 16 March 2020, Student Focus Group Interview on 27 April 2020, Lecturer ISSCM on 18 March 2020, and Student Questionnaire).
- The presence of co-lecturers – students could **obtain comprehensive knowledge** from three lecturers who specialized in different disciplines. Also, students claimed that learning was enhanced by including such interactions which would not be viable if the course had been taught by only one lecturer (via Student ISSCM on 16 March 2020, Student Focus Group Interview on 27 April 2020, Lecturer Focus Group Interview on 7 May 2020, and Student Questionnaire).

Co-teaching

From lecturers:

- **Mutual support among lecturers** – all lecturers took the initiative and made contributions to the successful collaboration and smooth progress. Although there were no regular scheduled meetings, the lecturers were able to resolve issues as they arose through the communication channels mentioned above (via Lecturer ISSCM on 18 March 2020).
- **Integrated the delivery of knowledge** – the roles of technology on education from the historical perspectives and educational perspectives were shared in illustrating the connections among the three disciplines. One lecturer reflected that some findings from academic journals about AI could be explained in more detail to stimulate students' thinking about the relationship between education and AI (via Lecturer Focus Group Interview on 7 May 2020).

From Course Observer:

- **Collaboration and interaction in class** – while one lecturer was teaching, the other two lecturers were present to raise questions and comments to stimulate students' thinking. Besides, there was a reflection and discussion session followed by a briefing session for the debate. In the former, students could reflect **and discuss the pros and cons on the application of machines in the education domain** by applying the interdisciplinary knowledge they learnt in the lessons and relating them to the theme of the course. The briefing on the debate motivated and stimulated students to develop interdisciplinary thinking and helped them connect the lesson contents to the debate topic (via Class Observation on 23 March 2020).

Positive Feedback

From both students and lecturers:

- Appropriateness of the assessments – the **weightings of the assessment tasks were appropriate** (via Student Focus Group Interview on 27 April 2020, Lecturer Focus Group Interview on 7 May 2020, and Student Questionnaire).

From students:

- **The design of assessments** – students agreed that the **reflection journal was an appropriate assignment** and **appreciated the comments given by the lecturers** (via Student Questionnaire). Besides, the **problem-driven debate could promote interdisciplinary learning in helping students grasp interdisciplinary concepts and skills**. For example, students could apply what they had learnt into practice in peer discussions and by integrating knowledge from different disciplines to support their arguments (via Student ISSCM on 16 March 2020 and Student Focus Group Interview on 27 April 2020).
- Assessment criteria/ rubrics – **students were encouraged to cover as many disciplines as possible in the debate according to the rubrics** (via Student ISSCM on 16 March 2020), and they thought that the **assessment criteria were appropriate and fair** (via Student Questionnaire).
- Feedback for the assessments – the feedback from lecturers on the first learning journal was appropriate (via Student Focus Group Interview on 27 April 2020).

Co-assessing

From lecturers:

- Assessment items of the course – the main assessment items, debate and individual journals, **were introduced to students in the first lesson** (via Lecturer ISSCM on 18 March 2020).
- Assessment criteria/ rubrics – The assessment criteria had been agreed on among three lecturers. One of the criteria was the **level of integration of interdisciplinary knowledge**. For example, students' skills of integrating interdisciplinary knowledge holistically were assessed through their performances in the debate (via Lecturer ISSCM on 18 March 2020).
- Student's efforts for the debate – **students actively prepared for the debate by researching into the topics and making possible refutations** (via Lecturer Focus Group Interview on 7 May 2020).
- Lecturers' involvement in the marking process – all three lecturers took turns to mark the first draft of learning journal, i.e. the Lecturer-in-Charge marked the journal first, followed by the other two lecturers. The comments on the first draft of learning journal were shared via Moodle, and lecturers could provide additional comments if needed. **A final score was decided based on the marks given by each lecturer guided by the assessment criteria which were designed to measure students' abilities on integrating their learning from different disciplines. Also, all lecturers observed and recorded students' performances in the debate. One lecturer reflected that this marking method was appropriate for interdisciplinary courses** (via Lecturer Focus Group Interview on 7 May 2020).
- The feedback for the assessments – **students were given comments for both summative and formative assessments** (via Lecturer Focus Group Interview on 7 May 2020).

Comments received from Student(s)	Lecturer's response(s)	Relevant Lecturer(s)
1. Three lecturers teaching a course would make lecturers confused about their roles in the lessons sometimes, and students felt that some in-class learning experiences were more interesting than the others.		Dr. Yip Dr. Liu Dr. Sun

Co-assessing (Issues)

Comments received from Student(s)	Lecturer's response(s)	Relevant Lecturer(s)
About the learning journals		
The two reflection journals were repetitive. Some students suggested having one reflection journal and two debates, i.e. one mini-debate and one final debate, on different topics.	One lecturer responded that a mini-debate was planned at first but was finally cancelled due to the change to online teaching, and agreed that it would be good to have a mini-debate in the future.	Dr. Yip Dr. Liu Dr. Sun
It was difficult to write the first draft of the learning journal as students did not have any ideas, experience, or knowledge about interdisciplinarity when they were going to write the first journal. Thus, they suggested that the submission deadline of the first journal could be postponed or to conduct a mini-debate before submitting the first journal.	One lecturer suggested that 10-minute practical activities related to the debate could be conducted in class, and some controversial issues on “AI replacing human educators” could be the topics for practice.	Dr. Yip Dr. Liu Dr. Sun
About the debate		
The time limit for each speaker in the debate could be longer, such as 5–7 minutes, so that students could have enough time to present the abundant materials and respond to others' refutation. Also, the free debate session could last for 30 minutes to make the debate more stimulating.	One lecturer commented that 3 minutes was too short for each speaker to present arguments in the debate and suggested extending the time limit to 5 minutes next time.	Dr. Yip Dr. Liu Dr. Sun
The number of group members was more than that of the speakers, so 2–3 students in each group could only do the behind-the-scene work without having the opportunity to present their arguments. Besides, it was difficult to arrange a time for debate preparation and reach a consensus as there were too many students in each group. Therefore, students suggested having two debate sessions, with 4 students in a group, so that each student could be assessed more appropriately and fairly.	One lecturer commented that different debate topics could be prepared for different sessions if the class size was larger, and students' preferences on the group size could be taken into consideration.	Dr. Yip Dr. Liu Dr. Sun
The online forum could be used to accommodate a larger debate group since students could type their arguments on the forum.		Dr. Yip Dr. Liu Dr. Sun
It was necessary to pick a winning team instead of announcing a draw for both teams.	Students took the debate seriously and hoped that a winning team was decided in lieu of a draw for both teams. It was also important to invite external judge(s), such as expert(s) in Artificial Intelligence (AI) domain, to give independent opinions and make fair judgments for the debate.	Dr. Yip Dr. Liu Dr. Sun
Lecturers could give feedback directly on their performances right after the debate, such as the logic of arguments, adequacy of materials, and appropriateness of refutation so that they could make improvements.		Dr. Yip Dr. Liu Dr. Sun

Comments received from Student(s)	Lecturer's response(s)	Relevant Lecturer(s)
Course content		
The sequence of the theory of AI, and AI examples would be swapped so that students could make better preparation for the debate.		Dr. Sun
Some in-class lectures could be replaced by activities to provide students with opportunities to explore new perspectives in a relaxing way. For example, students could learn the history of education through PowerPoint or videos by themselves, and this part could be replaced by relevant field trips.		Dr. Yip Dr. Liu Dr. Sun
There should be one lesson to introduce how to prepare for a debate and provide some practical exercises to students who had little experience in debate.	There was one lesson for introducing how to prepare for debate covering what good arguments were and how to make arguments.	Dr. Yip Dr. Liu Dr. Sun
Teaching materials		
Playing long videos during online lessons was quite boring.		Dr. Yip Dr. Liu Dr. Sun
Lecturers could provide more information about AI for students' references since they knew little about AI before.	One lecturer responded that information about technology was shared in the history and education parts. Also, the articles about AI could be explained in more detail to stimulate students' thinking about the relationship between education and AI.	Dr. Sun
More resources and materials about the techniques of debate could be provided. For example, the topic of debate was "Can technology replace human educators?", and there were various definitions about the word 'replace'. If the opponent defines 'replace' in the way that other students disagree with, they might have difficulties tackling such an issue.		Dr. Yip Dr. Liu Dr. Sun

Overall conclusion & thoughts

- Students are enthusiastic
- High-quality Learning outcomes reflected from the assignments (e.g. journals, debates and discussion)
- Need strong language competencies (Major – English)
- More organized and structured (for course sustainability)
- Visible Interdisciplinarity in every lesson
- Debate assessment to be improved
- “Future Classrooms” – to be focused
- Catering for lower and higher ability

Reflection and Way Forward

Issues and Concerns	problems	'solutions'
1. Debate as Assessment	Free-riders; technical details	Explore OASIS model; Time control + participation for all; Framework for writing Journals
2. Connection with the main theme Who are the educators in 21 st Century	Introduce more Technology (AI) aspect early Try out debates	Enrich Uncle Stephen Time with more Technological aspects (e.g. AI) Mini-debate in mid-course
3. Roles of teachers/ division		Strong visible roles in all aspects
4. Support and Feedback to students	Slightly lack of support	Stronger support in the two Tutorials session (especially the second)
5. Others (e.g. organized delivery)		More solid plan beforehand Teaching journal