University of Waterloo
Stratford Campus
GBDA 401
Cross-Cultural Digital Business 1
Fall 2016
MTWTh 10am -12:50pm, DMS 3022

Instructor Information

Instructor: **Brian Lau**
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Instructor: **Jennifer Roberts-Smith**
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Instructor: **Vivian Yang**
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Teaching Assistant: **Annaka Willemsen**
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Guest Instructors

William Chiang
Director, ELMO (Hong Kong) – Client

Jack Hang-tat Leong
Director, Richard Charles Lee Canada-Hong Kong Library, University of Toronto – Hong Cong Cultures

George Kleopa
NFC Authority, Accelerator Centre, Stratford Campus – Networking Technologies and the Internet of Things

Jordan Mandel
Stratford Campus – Networking Technologies

Mike Szarka
Office of Research – Intellectual Property

Ellyn Winters-Robinson
Stratford Accelerator Centre – Pricing and Marketing New Products

Course Description

In this course students will study how digital products and services are modified and/or repurposed to suit the needs of a community outside of their origin. Students will work with global business consultants to identify and outline a cross-cultural digital business project with a local or global community. In the Fall 2016 offering, students will work with William Chiang, Director of ELMO (Hong Kong) to explore this design research question:

> *How can networked technologies enhance the in-person social interactions that are implicit in household furniture?*

Our specific design challenges will be:

1. What in-person social interactions are implicit in one piece of furniture in ELMO's existing catalogue (selected by Mr. Chiang), and in what ways might they be extended by the Internet of Things?
2. How can we embed the physical technologies required for IoT networking into the selected ELMO pieces in unobtrusive ways, so that technology is ubiquitous but hidden?
3. How can IoT-networked ELMO pieces create successful user experiences implicitly, by means of design rather than explicitly teaching users new skills?
4. How might we pitch IoT-networked pieces to ELMO's existing market and potential new markets, specifically: the retailers who currently stock existing ELMO products; the The Hong Kong Trade Development Council and CreateHK; and the Hong Kong Furniture Association.
5. What is the business case for ELMO to proceed with IoT-networked furniture?

Assessments

Individual Assessments (see details below)

In-class Content Responses	see LEARN for designated classes, best 10 out of 17 @ 2% each	20%
Teamwork Skills Statements	October 20, Nov 14 (draft), Nov 24, 2 @ 10% each	20%

Group Assessments (see details below)

Provotype	October 17	15%
Viable Prototype	November 7	15%
Usable Prototype	November 21	15%
Pitch	December 5	15%

Total	100%

Schedule and Required Class Preparation

Required course materials will be posted in the appropriate LEARN folder in advance of each class.

Notes and Policies

Late Work

Late work will not be accepted except in documented cases of illness or emergency, with the approval of your instructors.

Electronic Device Policy

Electronic devices are to be used for class-related activities only. Devices must be closed, disabled, and/or set aside when requested by the instructor. Students who do not comply with the electronic device policy may be asked to leave a class. Students who have made arrangements through the Office for Students with Disabilities may use electronic devices as an academic accommodation related to their disability.

Attendance Policy

Absences will be tolerated only in cases of illness or emergency, and only if appropriate documentation is provided. Students must give advance notice of absences by e-mail to group members and to the teaching assistant. Since failure to attend means that students cannot complete course assignments, after two unexcused absences or any three sequential absences (even if excused), students must request an interview to discuss their status.

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the UWaterloo Academic Integrity webpage and the Arts Academic Integrity webpage for more information.

Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties check Guidelines for the Assessment of Penalties.

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 - Student Appeals.

Note for Students with Disabilities

The AccessAbility Services office, located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Course Goals and Learning Outcomes
On completion of this course, students should be able to:

A. **Conceptualize generative designs effectively by:**
   a. addressing stakeholder needs;
   b. conducting relevant, credible background research;
   c. predicting the meaning and impacts of a design.

B. **Implement designs effectively by:**
   a. adapting concepts to variable delivery platforms and media;
   b. adapting concepts to variable user demands and potentials;
   c. creating prototypes that effectively address design needs;
   d. seeking and actively listening to stakeholder feedback;
   e. contributing actively to reflexive self and team evaluation;
   f. conducting relevant, credible user testing;
   g. integrating self, team and stakeholder evaluation into meaningful conceptual and prototype revisions.

C. **Manage a viable project by:**
   a. collaboratively setting project goals and objectives;
   b. evaluating and optimizing the sustainability of projects;
   c. evaluating and ethically managing the impacts of projects;
   d. effectively scaling and scoping projects;
   e. facilitating positive and productive team communication;
   f. working collaboratively to achieve productivity;
   g. working effectively within constraints;
   h. actively resolving conflict;
   i. consistently meeting hard stop deadlines;
   j. assessing the strengths of team members;
   k. providing actionable feedback for improvement;
   l. scoping, committing to, and delivering one's own contributions to projects;
   m. responding to feedback rapidly and respectfully;
   n. learning and habitually applying project management and team communication tools.

D. **Communicate effectively by:**
   a. using multimodal communication tools to express the values, meaning, and social implications of a design.

E. **Evaluate a project by:**
   a. assessing one's own performance in relation to course expectations;
   b. setting structured and measurable goals for personal improvement;
   c. measuring the extent to which design prototypes and processes have met stakeholder and course needs;
   d. developing strategies for improvement in future design iterations.

Individual Assessments
For your individual assessments, you may not collaborate with other students.

In-class Content Responses - 10 @ 2%
This assessment addresses Learning Outcomes Aa-c, Ba-b, D, Ed. At the end of **17 designated classes**, you will be given 10 minutes to post THREE bullet points to the appropriate LEARN Discussion Board containing:
- something important you learned in that class;
- an idea you developed out of the content of that class; and/or
- a question you have about the content of that class.

Your instructor may provide more specific requirements on any given day. Your post will either be judged complete (pass) or incomplete (fail) by your teaching assistant and instructors. Up to 10 passes will be counted towards your grade. LEARN folders for designated classes contain discussion boards.

Teamwork Skills Statements 1 and 2 - 2 @ 10%
These assessments address Learning Outcomes Bd-f, C, Ea-b. Each Reflection gives evidence of how you used an assigned professional skill in your course work. It consists of:
- a 500-word account in STAR format (Situation/Task, Actions, Result)
- at least one piece of documentary evidence

There will be two drafts of Statement 2. Your submissions will be graded out of 100 by your teaching assistant and instructors. See LEARN for complete assignment instructions.

Group Assessments
For your group assessments, you must collaborate effectively and equitably with students in the group to which you have been assigned. You will give evidence of your ability to collaborate in one or both of your individual Professional Skills Reflections.

Iterative Prototyping Assignment Part 1: Provotype - 15%
This assessment addresses all course Learning Outcomes, with an emphasis on Aa-c, Ba-g, Ca-d, Ec-d. As part one of your Iterative Prototyping Assignment, your Provotype describes what your team would love to design, if there was no limit to your production resources. It consists of:
- your high-quality, low-fidelity provotype (digital or physical);
- your 1500-word Rationale;
- Appendix 1 - your Summary Table of Design Progress;
- Appendix 2 - copies of the Design Traces left by each of your working sessions;
- Appendix 3 - your Academic Literature Review;
- Appendix 4 - your Environmental Scan with 3-5 illustrations;
- Appendix 5 - your Speculative Social Impact Analysis; and
- your Reference List.

Your submission will graded out of 100 by your instructors, taking into account feedback from guest instructors and your client. See LEARN for complete assignment instructions.

Iterative Prototyping Assignment Part 2: Viable Prototype - 15%

This assessment addresses Learning Outcomes [LIST]. As part two of your Iterative Prototyping Assignment, your Possible Prototype shows how your team can adapt your design to what is possible, given the production environment and resources available in your partner's organization. It consists of:
- your high-quality, low-fidelity provotype (digital or physical);
- your 1500-word Rationale;
- Appendix 1 - your Summary Table of Design Progress;
- Appendix 2 - copies of the Design Traces left by each of your working sessions;
- Appendix 3 - your End-user Consumer Market Research;
- Appendix 4 - your Potential Market Analysis;
- Appendix 5 - your Potential Social Impact Research; and
- your Reference List.

Your submission will graded out of 100 by your instructors. See LEARN for complete assignment instructions.

Iterative Prototyping Assignment Part 3: Usable Prototype - 15%

This assessment addresses Learning Outcomes [LIST]. As the third and final part of your Iterative Prototyping Assignment, your Improved Prototype shows how your team can adapt to your design in response to feedback you get from prospective users. It consists of:
- your high-quality, low-fidelity provotype (digital or physical);
- your 1500-word Rationale;
- Appendix 1 - your Summary Table of Design Progress;
- Appendix 2 - copies of the Design Traces left by each of your working sessions;
- Appendix 3 - your User Test Protocol;
- Appendix 4 - your User Test Data;
- Appendix 5 - your Financial Projection;
- Appendix 6 - your Social Impact Analysis; and
- your Reference List.

Your submission will graded out of 100 by your instructors. See LEARN for complete assignment instructions.

Pitch - 15%

This assessment addresses Learning Outcomes Aa-c, Cb-c, Ci, Cm, D, Ec-d. You will be assigned one of the following three investors: the Hong Kong Trade Development Council and CreateHK, the Hong Kong Furniture Association, or the retailers who currently stock existing ELMO products. Your Pitch convinces your investor to support your product. Your submission will graded out of 100 by your instructors, taking into account feedback from your client and Accelerator Centre mentors. See LEARN for complete assignment instructions.