TIMG 5105
DESIGNING INNOVATION COMMUNITIES

Fall 2023
Institute of Technology Entrepreneurship and
Commercialization, Carleton University

Professor Weiss   Wed, 6-9pm
michael_weiss@carleton.ca

Updates to this outline will be made as necessary.   Version 2.1

Instructor availability
The instructor is available via e-mail and Slack (preferred) any time. Office hours before class or by appointment.

Time and location
Wed, 6-9pm, hybrid (Nicol Building 3020 and online)
You can attend the class both in-person and online. Presentations of assignments will take place online. If you are attending in-person, be considerate of others: wear a mask, and ensure physical distancing.

Calendar description
TIMG 5105 [0.5 credit] Designing Innovation Communities
This course helps entrepreneurs and product managers understand the role of communities in innovation (e.g. peer production and crowdsourcing). It provides them with tools for designing communities, and guidelines for selecting the technology for supporting a community.
Includes: Experiential learning activity

Benefits
Benefits to participants in this section of TIMG 5105 will be derived from:

- Learning how to use innovation communities to build a global brand for their business, provide support and develop products in collaboration with their customers
- Examining theories from social science relevant to the design of innovation communities and experimental evidence, organized around design challenges: start a community, attract members, encourage members to contribute and commit, and regulate behavior
- Designing their own innovation communities using design principles and tools for community design (e.g. community design canvas)
- Experiencing the co-creation of new knowledge through collaborative and iterative coursework
- Knowing where to acquire knowledge about innovation community design
- Improving learning and communication skills
- Engaging with other graduate students and talented individuals who are part of the TIM business ecosystem
- Developing their own individual brands and enhancing the TIM program brand

Objectives

	Part	Objectives	Number of classes
1	Learn about innovation communities and their applications	• Define innovation communities • Identify seminal papers on innovation communities and their applications (such as	4

		• branding, support, and development) • Introduce innovation community design	
2	Examine theories from social science relevant to the design of innovation communities and experimental evidence	• Introduce theories from social science relevant to the design of innovation communities and design principles and tools for community design extracted from them • Organize the design and principles and tools around design challenges: starting a community, attracting members, encouraging members to contribute and commit, and regulating behavior • Identify papers that provide experimental evidence for design principles	4
3	Build your own innovation community	• Design an innovation community by applying the design principles and tools • Make design choices that demonstrate knowledge of relevant theories from social science and experimental evidence • Track and reflect on progress producing course outcomes	4

Class Sessions

Students can participate online by logging into the BigBlueButton on Brightspace. For the audio portion of the conference, you can also call into the conference server using the phone numbers provided on login, or using the built-in VOIP feature (click on the headset icon). A recording of the sessions will be available after class.

For the weekly sessions there will be assigned readings and tasks.

During the student group presentation sessions, groups will be asked to make short presentations on their assignments (max. 10 minutes except where explicitly stated otherwise; please practice so you stay on time). Each group decides who presents what and in which order. **Before 3 p.m. EST on the day when presentations are due, each group will upload the slides to be presented.** No exceptions.

The course material and recordings of the class sessions will be made available on Brightspace.

Student Evaluation

Course participants are required to complete two group assignments and one individual assignments. To determine the course grade, the following weights apply:

- Assignment 1: Design canvas for an existing innovation community (group)   20%
- Assignment 2: Design of an innovation community (group)   40%
- Assignment 3: Peer review of two community designs (individual)   10%
- Assignment 4: Key statements from selected readings (individual)   5%
- Assignment 5: Design claims from readings (individual)   10%
- Take home exam: Vignette (individual)   15%

Assignments submitted late and presentations not made will receive a grade of zero. All students in a group receive the same grade. The mark for the group assignments will be based on an assessment of the group assignments as well as an individual reflection. **In the individual reflection, students will be asked to summarize what they learned from the assignment and what they contributed to the team.** If the individual reflection demonstrates a poor understanding of the material or a low level of participation in the group, the instructor reserves the right to lower the individual's grade for the group assignments by up to a full letter grade. If it is particularly informed, thorough, or demonstrates an exceptionally high contribution to the team, the instructor will raise the individual's grade by up to a full letter grade.

Final grade reports will follow Carleton University guidelines.

Assignment 1: Design canvas for an existing innovation community
This is a group assignment. Typical groups have 3-4 members.

Choose an existing innovation community. Based on the community's website:

- Identify its type (brand, support, co-creation)
- Identify the community's sponsor, purpose, and members
- Identify its outcomes, key activities, and places

Note that you **do not** need to describe the engagement, recruitment, or rules components.

Format:

- Design canvas (one page, landscape format)
- Record a short video explaining your design canvas (3 minutes or less)

Assignment 2: Design of an innovation community
This is a group assignment. Typical groups have 3-4 members.

The purpose of this assignment is to learn how to apply the tools for designing an innovation community. The community will be created to support the needs to a sponsoring company (sponsor). **It is important that you separate the business from the community that supports the business.** For example, a marketplace like Airbnb is a business, whereas the Airbnb community that supports hosts is a community (also see eg the iFixit example discussed in class). Your community can be a brand, support, or product development community.

The design should proceed in stages:

1. Identify purpose, sponsor needs, and members/needs
2. Define community outcomes and success metrics
3. Design activities that will produce the community outcomes
4. Select strategies for engaging community members
5. Select strategies for recruiting new members
6. Define rules of conduct that members need to follow (not a list of rules, but the types of rules)

Complete a community design canvas (Weiss, 2017) with only the key elements. The document should explain the contents of the canvas in greater detail. For example, in your canvas you should only identify the key outcomes by name, but in the document you would describe each of those outcomes and how you will measure them. The document should start with the canvas. The rest could be organized by stage. **It is important that the document conveys a narrative that links the elements of the canvas.** For example, the narrative might start with the sponsor (eg, Lego) and their needs (eg new product ideas), the list of members (eg, Lego enthusiasts) and their needs (eg, share their creations), and the purpose that meets the needs of both sponsor and members (eg, the Lego Ideas community allows users to submit ideas for Lego products to be turned into potential sets for sale).

Identify key design claims from Kraut et al. (2012) that you will be use in the design of your community and show how you applied them. The majority of design claims describe a design alternative (e.g. "make required tasks explicit") and the design goal it helps achieve (e.g. "increase contribution"). As the above design claim is related to contribution, it would be good claim to use at stages 2 or 3. Don't just quote the design claim. To apply this design claim to your community, you need to identify what specific tasks you will make explicit. It also better to cite fewer design claims, but ones that are relevant and support your design choices.

Format:

- Interim versions of document using templates that will be provided (just stages 1-2 or 3-4)
- Final version of document using the templates (all stages in one document)
- Interim version of the presentation that covers stages 1-2 (one slide per stage, and one for the canvas that includes **only** the stages completed by the time of this assignment)
- Final version of presentation (one slide per stage, one for the canvas)

Assignment 3: Peer review of two community designs (individual)
Review two community designs by other groups. You will be evaluated on the quality of your feedback. There will be two intermediate iterations of the assignment. **Comment on both versions, for the same groups.**

Reviews will be evaluated on their merit. Don't just say how much you liked a draft (low value), but provide concrete suggestions for improvement that your peers can incorporate into a better version of their assignment.

Format:

- Post your reviews as replies to the post with the assignments

Assignment 4: Key statements from selected readings (individual)
Extract key statements from the course readings prefixed by a star (*) in the schedule.

Submit the key statements from the assigned article before the class. These statements need to be related to the aspect of community design (eg, contribution) discussed during that session.

You need to submit key statements before class for all five design challenges.

Assignment 5: Design claims (individual)
Extract design claims from the course readings prefixed by a star (*) in the schedule. Since some papers discuss more than one aspect of community design, focus on the design challenge under which the reading is listed.

For each session on one of the five design challenges discussed in class:

- Start with the key statements extracted from the assigned article. These statements need to be related to the aspect of community design (eg, contribution) discussed during that session
- During the class, in a group synthesize the key statements by clustering them by commonality (eg, using the KJ method). These clusters are the "seeds" for design claims
- Document a design claim using the format used in the Kraut et al. (2012) book
- The design goal of the claim should either be one of the existing design goals discussed in the book under the given design challenge or a new design goal, if you can justify why
- Also provide a one-paragraph rationale for the design claim

In total, you should submit **three** design claims plus their rationales. This means that you can choose for which challenges you will write your design claims. (If you submit more, I will count the three best attempts.)

Design claims should be submitted one week after the respective class.

Take-home exam: Vignette (individual)
Write a vignette on a recent use case of innovation communities (eg, DeFi communities). A list of topics will be posted. Choose a topic from the list or as discussed with the instructor.

A vignette is a form of writing for disseminating research results to practitioners. They are shorter and less formal than research articles. OnPoint versions of Harvard Business Review articles are good examples of vignettes.

Format:

- Idea in brief (the core idea, 100-150 words)
- Idea in practice (putting the idea to work: its key elements and an example, 400-600 words)
- Submit an early draft version with the topic and idea in brief section

Exams are due on **Dec 22**.

Group work and free loaders
Group work is an important component of this course. You may elect to work in the same group to prepare both assignments or work in two different groups. Group conflicts are to be dealt with by the group in a way that is fair, fast and without personal attacks. The instructor does not settle group disputes.

The instructor will dissolve a group that is late submitting an assignment. A group of three is expected to deliver better work than a group of two.

Free loaders are not welcome anywhere. This course is no exception. The best way to deal with free loaders is to not include their names in the first page of the group assignments. If a student's name does not appear in an assignment submitted by his or her group, the student must submit his or her own assignment. Failure to do so, the student will receive zero for the assignment. There is zero tolerance for free loaders.

Use of AI tools
AI tools like ChatGPT can be useful in many ways in your day-to-day work as an analytics professional. However, because they can also be abused, you must acknowledge the use of AI tools in any course work you submit.

Here are some guidelines for what not to do when using AI tools in your assignments:

- You should not rely solely on AI tools. It is important that you understand the material and complete assignments on your own. Use AI tools as a supplement, rather than a replacement for your work
- Do not use AI tools to plagiarize (also see the section on plagiarism below). Using AI to generate or modify content to evade plagiarism detection is unethical and violates academic integrity
- You cannot assume that AI responses are correct. AI can generate convincing but incorrect results

Note: These guidelines were adapted from https://www.cs171.org/2023/syllabus.

Special Information for Pandemic Measures
It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are a number of actions you can take to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton's symptom reporting protocols.

Masks: Carleton has paused the COVID-19 Mask Policy, but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

Students with disabilities
Students with disabilities who require academic accommodations in this course are encouraged to contact the Paul Menton Centre (PMC) for Students with Disabilities to complete the necessary forms. After registering with the PMC, make an appointment with me in order to discuss your needs at least two weeks before the first assignment is due. This will allow for sufficient time to process your request

Plagiarism
Plagiarism (copying and handing in for credit someone else's work) is a serious instructional offence that will not be tolerated. Please refer to the section on instructional offences in the Graduate Calendar for additional information. Plagiarism is against the TIM culture. A case of plagiarism will be referred to the Director of the TIM program and the Carleton University Ethics Committee. The instructor will not deal with the matter directly. The university has clear processes to deal with students who are suspected of plagiarism.

Administrative details
These are the rules of conduct for this course:

- Please notify the instructor via e-mail, if you will not attend a class.
- **You must be prepared for each class.** You do so by reading the material assigned and being prepared to discuss in class how what was read can be applied in product development organizations.
- We will use Brightspace to share files and upload assignments unless noted otherwise.
- **You need to sign up for Slack.** Course announcements will made on Slack. Course discussions will take place on Slack. Don't send me an email if you have a question, but use Slack.
- Each presenter must make his/her slides available to all other students by **3pm** on the day of the class.

Better Journals and Conferences
Communications of the ACM
Computer Supported Cooperative Work
Information Systems Research
R&D Management
MIS Quarterly Executive
Organization Science
Sloan Management Review
Conference on Computer Supported Cooperative Work
Conference on Recommender Systems
International Symposium on Open Collaboration (OpenSym)
SIGCHI Conference on Human Factors in Computing Systems
The World Wide Web Conference

Contribution to program learning goals

Learning goals	Not Covered	Introduced	Taught but Not Assessed	Taught and Assessed
TM1 Critical Thinking and Application of Knowledge Graduates will demonstrate a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights.				✔
TM2 Research and Scholarship Graduates will demonstrate a conceptual understanding and methodological competence.				✔
TM3 Communication Capabilities Graduates will communicate ideas, issues, and conclusions clearly.				✔
TM4 Professional Capacity and Autonomy Graduates will demonstrate initiative and personal integrity when they interact with the TIM business ecosystem.		✔		

Date	Topic	Readings	Learning Goals
Sep 6	Session 1: Introduction	Course outline Defining innovation communities	Defining innovation communities
Sep 13	Session 2: Community concept and use cases	Fisher (2019) Malone et al. (2010)	Community concept Use cases
Sep 20	Session 3: Examples of communities (branding)	Di Gangi et al. (2010) Davis et al. (2014) Knudsen et al. (2021)	Characteristics Examples
Sep 27	Session 4: Community design tools	Kraut et al. (2012, Chapter 1) Weiss (2017a)	Community design canvas Design claims
Oct 4	Session 5: Starting a community Assignment 1 (canvas, video) Assignment 4 (starting)	Kraut et al. (2012, Chapter 6) * Bares et al. (2023)	Design claims Examples
Oct 11	Session 6: Contribution Assignment 4 (contribution) Assignment 5 (starting)	Kraut et al. (2012, Chapter 2) * Hornaert et al. (2017)	Design claims Examples
Oct 18	Session 7: Assignment 2 (draft presentations) Assignment 2 (draft report, stages 1-2) Assignment 5 (contribution)		
Oct 25	Break		
Nov 1	Session 8: Commitment Assignment 3 (comments, stages 1-2) Assignment 4 (commitment) Vignette (draft version)	Kraut et al. (2012, Chapter 3) * Qi & Hou (2021) Weiss (2017b)	Design Claims Examples
Nov 8	Session 9: Examples of communities (co-creation) Assignment 5 (commitment)	Gouillart & Quancard (2016) Malone et al. (2017) Flath et al. (2017)	Characteristics Examples
Nov 15	Session 10: Newcomers Assignment 2 (draft report, stages 3-4) Assignment 4 (newcomers)	Kraut et al. (2012, Chapters 4) * Sharma et al. (2022)	Design Claims Examples
Nov 22	Session 11: Regulation Assignment 3 (comments, stages 3-4) Assignment 4 (regulation) Assignment 5 (newcomers)	Kraut et al. (2012, Chapters 5) * Reischauer & Mair (2018) Weiss (2017c)	Design Claims Examples
Nov 29	Session 12: Assignment 2 (final presentation) Assignment 2 (final report, stages 1-6) Assignment 5 (regulation)		
Dec 22	Take-home exam: Vignette (final version)		

Readings

The course is organized around the content of the following book, complemented by articles:

Kraut, R. E., Resnick, P., Kiesler, S., Burke, M., Chen, Y., Kittur, N., Konstan, J., Ren, Y., & Riedl, J. (2012). *Building successful online communities: Evidence-based social design*. MIT Press. [a draft of the book is available at https://kraut.hciresearch.info/books/]

Readings for Session 2: Community concepts and use cases

Fisher, G. (2019). Online communities and firm advantages. *Academy of Management Review*, 44(2), 279-298.

Malone, T., Laubacher, R., & Dellarocas, C. (2010). The collective intelligence genome. *MIT Sloan Management Review*, 51(3), 21-31.

Readings for Session 3: Examples of communities (branding)

Di Gangi, P. M., Wasko, M. M., & Hooker, R. E. (2010). Getting customers' ideas to work for you: learning from Dell how to succeed with online user innovation communities. *MIS Quarterly Executive*, 9(4).

Davis, R., Piven, I., & Breazeale, M. (2014). Conceptualizing the brand in social media community: The five sources model. *Journal of Retailing and Consumer Services*, 21(4), 468-481.

Knudsen, G. H., & Antorini, Y. M. (2021). Hard work: Unanticipated collaboration in co-creation processes. *Journal of the Association for Consumer Research*, 6(4), 435-446.

Readings for Session 4: Community design tools

Kraut et al. (2012). Chapter 1. *Building successful online communities: Evidence-based social design.*

Weiss, M. (2017a). Community Design Canvas: A tool for designing innovation communities. *ISPIM*. https://www.researchgate.net/profile/Michael_Weiss7/publication/313877676_Community_Design_Canvas_A_tool_for_designing_innovation_communities.

Readings for Session 5: Starting a community

Kraut et al. (2012). Chapter 6. *Building successful online communities: Evidence-based social design.*

Bares, F., Cova, B., & Nemani, A. (2023, Chapter 8). Community 1st – Start-up 2nd. *Start-Ups and the Mobilization of Social Interactions*. Emerald.

Readings for Session 6: Contribution

Kraut et al. (2012). Chapter 2. *Building successful online communities: Evidence-based social design.*

Hoornaert, S., Ballings, M., Malthouse, E. C., & Van den Poel, D. (2017). Identifying new product ideas: Waiting for the wisdom of the crowd or screening ideas in real time. *Journal of Product Innovation Management*, 34(5), 580-597.

Readings for Session 8: Commitment

Kraut et al. (2012). Chapter 3. *Building successful online communities: Evidence-based social design.*

Qi, G., Hou, L., Chen, J., Liang, Y., & Zhang, Q. (2021). How does user social network improve innovation outcomes on a virtual innovation platform?: Evidence from LEGO ideas platform. *Journal of Global Information Management (JGIM)*, 29(3), 188-211.

Weiss, M. (2017b). Patterns for idea management in innovation communities. *European Conference on Pattern Languages of Programs (EuroPLoP)*. ACM.

Readings for Session 9:Examples of communities (co-creation)

Gouillart, F., & Quancard, B. (2016, Chapter 2). The Co-Creation Cycle. *The Co-Creation Edge: Harnessing Big*

Data to Transform Sales and Procurement for Business Innovation. Palgrave.

Malone, T. W., Nickerson, J. V., Laubacher, R., Hesse Fisher, L., De Boer, P., Han, Y., & Towne, W. B. (2017). Putting the pieces back together again: Contest webs for large-scale problem solving. *Conference on Computer Supported Cooperative Work and Social Computing*, 1661-1674, ACM.

Flath, C. M., Friesike, S., Wirth, M., & Thiesse, F. (2017). Copy, transform, combine: exploring the remix as a form of innovation. *Journal of Information Technology*, 32, 306-325.

Readings for Session 10: Newcomers

Kraut et al. (2012). Chapter 4. *Building successful online communities: Evidence-based social design.*

Sharma, T., Zhou, Z., Huang, Y., & Wang, Y. (2022). "It's a blessing and a curse": Unpacking creators' practices with non-fungible tokens (NFTs) and their communities. *arXiv preprint* arXiv:2201.13233.

Readings for Session 11: Regulation

Kraut et al. (2012). Chapter 5. *Building successful online communities: Evidence-based social design.*

Reischauer, G., & Mair, J. (2018). How organizations strategically govern online communities: Lessons from the sharing economy. *Academy of Management Discoveries*, 4(3), 220-247.

Weiss, M. (2017c), Patterns for regulating behavior in innovation communities, *Conference on Pattern Languages of Programs (PLoP)*. ACM.