TIMG 5105
DESIGNING INNOVATION COMMUNITIES

Fall 2015
Department of Systems and Computer Engineering
Carleton University

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Announcements will be distributed by email and through Moodle

This course outline is a living document. Improvements may be made as necessary during the term.

Version 0.2

Instructor availability
The instructor is available via e-mail any time. Office hours by appointment (online and offline).

Time and location
Monday, 6-9pm, SP and online

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

Course objectives
The focus of this course will be on online innovation communities. The following topics will be covered:

- Examples of innovation communities (brand communities, peer production, crowdsourcing)
- Designing communities (how to start a community, attract members, encourage members to contribute and commit to the community, regulate behavior and manage quality)
- Selecting technology for supporting communities (communities of practice, community experience, technology configuration, community activities and tools, community assessment)

Problem definition, hypotheses formulation, methods to collect and examine data, and the identification of insights relevant to academics and practitioners are key components of this course. The particular approach we will use is to describe propositions about community design in terms of design claims.

Rationale
Innovation communities play an increasingly important role in product and service development. Many products are now designed in collaboration with customers, and many traditional tasks (eg support and product reviews) are carried out by customer-driven communities. A special case of this is when the product (eg open source software) is produced by a community (ie the peer production model). Still other products (social networking sites) are created for the sole purpose of supporting a community and have created a new industry (social media).

This course helps entrepreneurs and product managers understand the role of communities role in innovation (eg online contests and crowdsourcing). It provides them with tools for designing innovation communities (eg how to encourage contribution from community members), and guidelines for selecting the technology for an innovation community (eg understand community goals, choice of platforms). The content of the course complements topics covered in other courses such as TIMG 5005 (customer value creation) and TIMG 5101 (product development).

Benefits
This course prepares students to undertake thesis research or applied projects in the areas of community design, innovation using communities, and technology to support communities.

Class Sessions
Classes are delivered both in-class and online. To join online, go to http://present.carleton.ca and log into the conference **TIMG 5105** with password **student**. For the audio portion of the conference call the number listed in the chat window, or use the built-in VOIP connection (headphones icon). When prompted, enter the conference room in the chat window. When you use the VOIP connection, it is essential that you wear headphones.
Please see detailed instructions on joining an online classroom on the BigBlueButton website:

http://www.bigbluebutton.org/content/videos

For the weekly sessions, there will be assigned readings and tasks. The course material and recordings of the class sessions will be made available on the Moodle LMS at http://moodle.tim.carleton.ca. The instructor aims to make a version of the slides available before every class, however, they may be updated as a result of in-class discussion. Please check for updates after the class. A recording of each class will also be made available to allow students to review classes at a later point. Contact the instructor, if you need an account.

During the student group presentation sessions, groups will be asked to make short presentations on their assignments (max. 10 minutes; please practice so you stay on time). Each group decides who presents what and in which order. Before **6 p.m. EST** the day prior to when presentations are due, each group will upload the slides to be presented the next day to Moodle in PDF format. An easy way to convert presentations to PDF is to use Open Office, which can import files from PowerPoint and Word and save them to PDF. (BigBlueButton can also convert from other formats, but you lose control over the conversion results. Better to convert it yourself.)

Student Evaluation
Course participants are required to complete three group assignments, submit lessons learned, and participate actively in class (discussion and assigned tasks). To determine the course grade, these weights apply:

- Class participation (individual) 10%
- Innovation communtiy (group) 25%
- Community design (group) 25%
- Technology selection (group) 25%
- Lessons learned (individual) 15%

Assignments submitted late and presentations not made will receive a grade of zero. All students in a group receive the same grade. Final grade reports will follow Carleton University guidelines.

Class participation
Active class participation is an important component of this class:

1. Participation in class discussions (contribute to lessons learned at the end of each class, lead a discussion, provide feedback on the assignments of your classmates).
2. Start discussions on two topics related to the class material and post them to the forum, and contribute to two discussions created by others. Contributions are evaluated based on their significance.

Innovation community
This is a group assignment. Groups can have up to 3 or 4 members, or depending on class size.

Profile an existing innovation community:

1. What problem does the community solve?
2. Who are the members of the community that we need to connect?
3. What platform does the community use?
4. What interactions does the platform support?
5. What experiences will members gain from interacting?
6. What value is created for initiator and members?

Submit the initial version of the assignment in session 4.

Final version due in session 5.

Community design
This is a group assignment. Groups can have between 3 or 4 members, or depending on class size.

Design your own innovation community:

1. Propose an innovation community and answer the questions from assignment 1.
2. Complete a community design canvas for your community.

Workshop of the assignment in session 8.

Final version due in session 9.

Technlogy selection
This is a group assignment. Groups can have between 3 or 4 members, or depending on class size.

Select the technology to support the innovation community from assignment 2:

1. Identify the activities that need to be supported in your community.
2. Select technologies that support those activities based on the approach in *Digital Habitats*.

Workshop of the assignment in session 12.

Final version due one week after the end of classes.

Lessons learned

Document three lessons learned from the class, one from each focus area.

Due one week after the end of classes.

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.

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 Chair of the Department 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.
- Each presenter must upload his/her slides to Moodle by **6pm** the day before class.

Designing Innovation Communities: Schedule

Date	Topic	Readings
Sep 4	Session 1: Introduction	Course outline
Sep 14	Session 2: Innovation communities I	West & Lakhani (2008) Dahlander et al. (2008) Greer & Lei (2012) Lee & Cole (2003) Germanprez & Warner (2013)
Sep 21	Session 3: Innovation communities II	Autio et al. (2013) Gruner et al. (2014) Wenger et al. (2009) Guillart & Billings (2013) Piller et al. (2009)
Sep 28	Session 4: Innovation communities III Initial version of assignment 1 due: Innovation community	Levine & Pritula (2014) Baldwin & von Hippel (2011) Malone et al. (2010) Feller et al. (2012) DiGangi et al. (2010)
Oct 5	Session 5: Community design I Final version of assignment 1 due	Weiss (TBD) Kraut & Resnick (2012) Zhu et al. (2014)
Oct 12	Thanksgiving	
Oct 19	Session 6: Community design II	Kraut & Resnick (2012) Hill & Monroy-Hernandez (2013)
Oct 26	Break	

Nov 2	Session 7: Community design III	Kraut & Resnick (2012) von Krogh et al. (2003)
Nov 9	Session 8: Presentation of assignment 2: Community design	
Nov 16	Session 9: Technology selection I Final version of assignment 2 due	Wenger et al. (2009)
Nov 23	Session 10: Technology selection II	Wenger et al. (2009)
Nov 30	Session 11: Technology selection III	Wenger et al. (2009)
Dec 7	Session 12: Presentation of assignment 3: Technology selection	
	Final version of assignment 3 due Lessons Learned due	No class

Required books

Kraut, R., & Resnick, P. (2012), *Building Successful Online Communities*, MIT Press, draft chapters available at http://kraut.hciresearch.org/content/books

Wenger, E. et al. (2009), *Digital Habitats*, CPSquare, no electronic copy available at library. However, the companion website has some good resources: http://technologyforcommunities.com

Readings

To access the required journal articles in electronic form, go to: http://www.library.carleton.ca, and click on "Journals & Journal Articles". Enter the name of the journal, and click "Search". Click on the link (there may be several), and enter your barcode number and PIN. For material on the Web, the URL is provided.

Readings for Session 2: Innovation communities I

West, J., & Lakhani, K. R. (2008), Getting clear about communities in open innovation, *Industry and Innovation*, 15(2), 223-231.

Dahlander, L., Frederiksen, L., & Rullani, F. (2008), Online communities and open innovation, *Industry and Innovation*, 15(2), 115-123.

Greer, C. R., & Lei, D. (2012), Collaborative innovation with customers: a review of the literature and suggestions for future research, *International Journal of Management Reviews*, 14(1), 63-84.

Lee, G. K., & Cole, R. E. (2003), From a firm-based to a community-based model of knowledge creation: the case of the Linux kernel development, *Organization science*, 14(6), 633-649.

Germonprez, M., & Warner, B. (2013), Organisational participation in open innovation communities, In: *Managing Open Innovation Technologies,* Springer, 35-52.

Readings for Session 3: Innovation communities II

Autio, E., Dahlander, L., & Frederiksen, L. (2013), Information exposure, opportunity evaluation and entrepreneurial action: an empirical investigation of an online user community, *Academy of Management Journal*, 56(5), 1348–1371.

Gruner, R. L., Homburg, C., & Lukas, B. A. (2014), Firm-hosted online brand communities and new product

success, *Journal of the Academy of Marketing Science*, 42(1), 29-48.

Wenger, E., et al. (2009), Communities of practice: a glimpse of theory, *Digital Habitats*.

Gouillart, F., & Billings, D. (2013), Community-powered problem solving, *Harvard Business Review*, 91(4), 70-77.

Piller, F., Ihl, C., & Vossen, A. (2010), A typology of customer co-creation in the innovation process, *SSRN Electronic Journal*, 1732127.

Readings for Session 4: Innovation communities III

Levine, S. S., & Prietula, M. J. (2013), Open collaboration for innovation: principles and performance, *Organization Science*, 25(5), 1414–1433.

Baldwin, C., & von Hippel, E. (2011), Modeling a paradigm shift: From producer innovation to user and open collaborative innovation, *Organization Science*, 22(6), 1399-1417.

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

Feller, J., Finnegan, P., Hayes, J., & O'Reilly, P. (2012), 'Orchestrating' sustainable crowdsourcing: A characterisation of solver brokerages, *The Journal of Strategic Information Systems*, 21, 216-232.

Di Gangi, P. M., Wasko, M., & Hooker, R. (2010), Getting customers' ideas to work for you: learning from Dell how to succeed with online user innovation communities, *MIS Quarterly Executive*, 9(4), 213-228.

Readings for Session 5: Community design I

Weiss, M. (2015), Community Design Canvas

Kraut, R., & Resnick, P. (2012), Introduction, *Building Successful Online Communities*.

Kraut, R., & Resnick, P. (2012), Starting new online communities, *Building Successful Online Communities*.

Zhu, H., Chen, J., Matthews, T., Pal, A., Badenes, H., & Kraut, R. E. (2014), Selecting an effective niche: an ecological view of the success of online communities, *SIGCHI Conference on Human Factors in Computing Systems*, ACM, 301-310.

Readings for Session 6: Community design II

Kraut, R., & Resnick, P. (2012), Encouraging contribution to online communities, *Building Successful Online Communities*.

Kraut, R., & Resnick, P. (2012), Encouraging commitment in online communities, *Building Successful Online Communities*.

Hill, B., & Monroy-Hernández, A. (2012), The remixing dilemma: the trade-off between generativity and originality, *American Behavioral Scientist*, 57(5), 643–663.

Readings for Session 7: Community design III

Kraut, R., & Resnick, P. (2012), Regulating behavior in online communities, *Building Successful Online Communities*.

Kraut, R., & Resnick, P. (2012), The challenges of dealing with newcomers, *Building Successful Online Communities*.

von Krogh, G., Spaeth, S., & Lakhani, K. (2003), Community, joining, and specialization in open source software innovation: a case study, *Research Policy*, 32(7), 1217-1241.

Readings for Session 9: Technology selection I

Wenger, E. et al. (2009), Constructing digital habitats: community experience in technology configurations, *Digital Habitats*.

Wenger, E. et al. (2009), Make sense of the technology landscape, *Digital Habitats*.

Readings for Session 10: Technology selection II

Wenger, E. et al. (2009), Community orientations: activities and tools, *Digital Habitats*.

Wenger, E. et al. (2009), Assessing your community context, *Digital Habitats*.

Wenger, E. et al. (2009), Technology acquisition strategy, *Digital Habitats*.

Readings for Session 11: Technology selection III

Wenger, E. et al. (2009), Stewarding technology in use, *Digital Habitats*.

Wenger, E. et al. (2009), Action notebook, *Digital Habitats*.

Wenger, E. et al. (2009), More distributed future, *Digital Habitats*.

Suggested books

The following books are optional, but they allow you to pursue specific topics of the course in more detail. Some of these books can also be downloaded online or have significant web resources.

Benkler, Y. (2006), *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, Yale University Press. [http://cyber.law.harvard.edu/wealth_of_networks/Main_Page]

Brabham, D. (2013), *Crowdsourcing*, MIT Press.

Easley, D. & Kleinberg, J. (2010), *Networks, Crowds, and Markets*, Cambridge University Press, http://www.cs.cornell.edu/home/kleinber/networks-book/

Tuomi, I. (2006), *Networks of Innovation*, Oxford University Press.