K793 Mobile Commerce and Social Networks
Winter 2019 Course Outline
Information Systems
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

Mobile commerce is a new form of electronic commerce advanced through wireless communication and mobile devices. Recent development of smart phones is turning the dream of mobile commerce to reality and move to social networks and social commerce. This advanced PhD course is designed for discussing research issues on m-commerce and the new phenomena of social networks. Students will learn the technologies, the theories, and the applications of mobile commerce and social networks through paper reading, seminar presentation and class discussion.

INSTRUCTOR AND CONTACT INFORMATION

Instructor	Class Location: DSB 227
Dr. Yufei Yuan	Class Hours: Fridays
Office: DSB A204	9:30 am - 12:30 pm
yuanyuf@mcmaster.ca	http://aveneu.mcmaster.ca/

COURSE ELEMENTS

Credit Value:	3	Team skills:	Yes	IT skills:	Yes	Global:	Yes
Avenue:	No	Verbal skills:	Yes	Numeracy:	No	Political:	No
Participation:	Yes	Written skills:	Yes	Innovation:	Yes	Social:	No

COURSE DESCRIPTION

The rapid growth of mobile communication networks and the wide spread use of mobile devices have provided great business opportunity for the development of mobile commerce as well as social networks. Today, more than 60% of the world's population are mobile phone users, far exceeding the population of computer users with fixed-line Internet connections. Mobile commerce is the use of mobile communication for business services. It allows services to be delivered to people anytime anywhere based on users' needs in specific context. The new development of smart phones has promoted the information systems into a new era of ubiquitous computing and social media. This course introduces the the technologies, the theories, and the

applications of mobile commerce, and discusses current research issues. The course can be taken by PhD students or selected MBA students in the second year.

LEARNING OUTCOMES

Upon completion of this course, students will be able to complete the following key tasks:

➢ Learn the technology, the applications, and the business models of mobile commerce;

➢ Understand the challenges and business opportunities of mobile commerce and social commerce;

➢ Recognize important research issues in mobile commerce and social networks;

➢ Learn how to do literature review, make seminar presentation, and write research papers

COURSE MATERIALS AND READINGS

Reference Papers

Angeles, R. (2005) RFID technologies: Supply-chain applications and implementation issues. Information Systems Management, 2005. 22(1): p. 51-65.

Aral, S., Dellarocas, C., and Godes, D. (2013), Introduction to the Special Issue—Social Media and Business Transformation: A Framework for Research, *Information Systems Research,* 24 (1), pp. 3–13.

Baldauf M. (2007) A survey on context-aware systems, Int. J. Ad Hoc and Ubiquitous Computing, Vol. 2, No. 4, 2007, pp. 263 – 277.

Basole, R. C. and Karla, J. (2011) On the Evolution of Mobile Platform Ecosystem Structure and Strategy, Business & Information Systems Engineering, 3(5), 313-322.

Casal, C. R. (2004) Impact of location-aware services on the privacy/security balance, INFO, Volume 6, Number 2, 2004, pp. 105-111.

Chen G. and Kotz, K. (2000) A survey of context-aware mobile computing research, in Technical Reports. 2000, Dartmouth College: Hanover, NH.

Cheung, C. M.K. and Thadanib, D. R. (2012) The impact of electronic word-of-mouth communication: A literature analysis and integrative model, Decision Support Systems, 54(1), 461–470

Dahlberg, T., Mallat, N., Ondrus, J., and Zmijewska, A. (2008) Past, present and future of mobile payments research: A literature review. Electronic Commerce Research and Applications 7 (2008) 165–181.

Dey, A.K. and Abowd, G.D. (2001) 'Towards a better understanding of context and context-awareness', Human-Computer Interaction (HCI) Journal, Vol. 16, Nos. 2–4, pp.97–166.

Dery (2012) Managing mobile technology: The shift from mobility to connectivity, MIS Quarterly Executive, 11(4), 159-173.

Eysenbach G. (2008) Medicine 2.0: Social Networking, Collaboration, Participation, Apomediation, and Openness, Journal of Medical Internet Research, 10(3): e22, 1-11.

Fogel, J. and Nehmad, E. (2009) Internet social network communities: Risk taking, trust, and privacy concerns, Computers in Human Behavior, 25 (2009) 153–160.

Falaki, H. et al. (2010) Diversity in Smartphone Usage, MobiSys'10, June 15–18, 2010, San Francisco, California, USA.

Hong S-J and Tam K Y. (2006) Understanding the Adoption of Multipurpose Information Appliances: The Case of Mobile Data Services, Information Systems Research, 17(2) 162-179.

*Hew, J. J. (2017). Hall of fame for mobile commerce and its applications: a bibliometric evaluation of a decade and a half (2000–2015). Telematics and Informatics, 34(1), 43-66.

Huang Z. and Benyoucef, M. (2013) From e-commerce to social commerce: A close look at design features, Electronic Commerce Research and Applications, 12 (2013) 246–259.

ISOC (2014) Internet Society Global Internet Report 2014, www.internetsociety.org.

Junglas I.A. and Watson R.T. (2004). U-Commerce: A conceptual extension of E- and M-commerce. in International Conference on Information Systems. 2003. Seattle, WA.

- Kabalci, Y. (2019). 5G Mobile Communication Systems: Fundamentals, Challenges, and Key Technologies. In Smart Grids and Their Communication Systems (pp. 329-359). Springer, Singapore.

Kaplan, A. M. and Haenlein, M. (2010), Users of the world, unite! The challenges and opportunities of Social Media, Business Horizons (2010) 53, 59—68

Kalil, T. (2009) Harnessing the Mobile Revolution, Innovations: Technology, Government, Globalization, MIT Press, Winter 2009, Vol. 4, No. 1, Pages 9-23

Karaiskos, D. C., Bina, M., and Giaglis, G. M. (2008) Insights on the drivers and inhibitors of Mobile Data Service uptake, International Journal of Mobile Communications, 2008 6(3) pp. 296-308.

Kenney, M. and Pon, B. (2011) Structuring the Smartphone Industry: Is the Mobile Internet OS Platform the Key? Journal of Industry, Competition and Trade (2011) 11:239–261.

Kshetri, N. (2011) Privacy and Security Aspects of Social Media: Institutional and Technological Environment, *Pacific Asia Journal of the Association for Information Systems,* 3 (4), pp.1-20.

Kourouthanassis, P. E. and Giaglis, G. M. (2012) Introduction to the Special Issue Mobile Commerce: The Past, Present, and Future of Mobile Commerce Research, *International Journal of Electronic Commerce* / Summer 2012, Vol. 16, No. 4, pp. 5–17.

Lane, Nicholas D., Emiliano Miluzzo, Hong Lu, Daniel Peebles, Tanzeem Choudhury, and Andrew T. Campbell, Dartmouth (2010) A Survey of Mobile Phone Sensing, IEEE Communications Magazine • September 2010, 140-150.

Lee, Y.E. and Benbasat, I. (2004) A Framework for the Study of Customer Interface Design for Mobile Commerce, *International Journal of Electronic Commerce*, Spring 2004, Vol. 8, No. 3, pp. 79–102.

Leem, C. S., Suh, H. S., and Kim, D. S. (2004) "A classification of mobile business models and its applications", Industrial Management & Data Systems, Volume 104. Number 1.

2004. 78-87.

Liang, T-P and Turban, E. (2011) Introduction to the Special Issue Social Commerce: A Research Framework for Social Commerce, International Journal of Electronic Commerce, 16 (2), pp. 5–13.

*Lin, X., Li, Y., & Wang, X. (2017). Social commerce research: Definition, research themes and the trends. International Journal of Information Management, 37(3), 190-201.

Lyytinen, K. and Yoo, Y. (2002) 'Research commentary: the next wave of nomadic computing', Information Systems Research, Vol. 13, No. 4, pp.377–388.

Mallat, N., Rossi, M., and Tuunainen, V. K. (2004) "Mobile banking services", Communications of the ACM, May 2004 Volume 47, Issue 5, pp. 42-46.

Monares A., Ochoa S., Pino J. , Herskovic V. , Rodriguez-Covili J. , Neyem A. (2011), Mobile computing in urban emergency situations: Improving the support to firefighters in the field, *Expert Systems with Applications* 38 (2011) 1255–1267

Mylonopoulos, N. A. and Sideris, I. A., (2006) "Growth of Value Added Mobile Services Under Different Scenarios of Industry Evolution", *Electronic Markets*, 2006, Vol. 16 No 1, 28-40.

Ngai E.W.T. and Gunasekaran A.,(2007) "A review for mobile commerce research and applications", *Decision Support Systems*, 43(1) 3-15, 2007

OECD (2012) OECD Internet Economy Outlook 2012, http://www.oecd-ilibrary.org/science-and-technology/oecd-internet-economy-outlook-2012/us-smartphone-penetration-q2-2007-q4-2011_9789264086463-graph39-en

Petrova, K. and Wang, B. (2011) Location-based services deployment and demand: a roadmap model, Electron Commerce Research, 11: 5–29

Umar, R. and O. Turel (2005) Driving Visibility, Velocity and Versatility: The Role of Mobile Technologies in Supply Chain Management, *Journal of Internet Commerce*, 4 (3), 95-117.

Stutzman, F., Gross, R. and Acquisti, A. (2012) Silent Listeners: The Evolution of Privacy and Disclosure on Facebook, *Journal of Privacy and Confidentiality* 4(2) 7-41.

*Turban, E., Outland, J., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2018). Mobile commerce and the internet of things. In Electronic Commerce 2018 (pp. 205-248). Springer, Cham.

Voelpel, S. C., von Pierer, H., and Streb, C. K. (2006) Mobilizing organizations for innovation and value creation: an integrated model of the mobile company, Journal of Knowledge Management, VOL. 10 NO. 6 2006, pp. 5-21,

Wang, C. and Zhang, P. (2012) The Evolution of Social Commerce: The People, Management, Technology, and Information Dimensions, Communications of the Association for Information Systems, Volume 31, Article 5, pp. 105-127

Weber, A., Haasb, M. and Scuka, D. (2011) Mobile service innovation: A European failure, *Telecommunications Policy*, Volume 35, Issue 5, June 2011, Pages 469–480.

Yuan, Y. and Zhang, J. (2003) "Towards an Appropriate Business Model for M-commerce", *International Journal of Mobile Communication*, Vol. 1, No.1-2, 2003, pp. 35-56.

Yuan Y., Archer N., Connelly C., and Zheng W. (2010), "Identifying the Ideal Fit between Mobile Work and Mobile Work Support", *Information & Management*, Vol. 47, No. 3, pp.125-137, 2010

Zheng W. and Yuan, Y. (2007) "Identifying the differences between stationary office support and mobile work support: A conceptual framework". *International Journal of Mobile Communications,* 2007. 5(1): p. 107-122.

Zhang, D. and Adipat, B. (2005) Challenges, Methodologies, and Issues in the Usability Testing of Mobile Applications, *International Journal of Human–Computer Interaction*, 18(3), 293–308.

EVALUATION

Learning in this course results primarily from in-class discussion, seminar presentation, and research paper writings.

Components and Weights

The components of the course grade will be weighted as follows, tentatively. The instructor reserves the right to modify the weightings to adjust for more or less material covered during the semester.

COMPONENT		PERCENT
Class participation	Individual	10%
Seminar presentation I	Individual	15%
Seminar presentation II	Individual	15%
Research paper presentation	Individual	10%
Research paper	Individual	50%
Total		100%

Grade Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme.

LETTER GRADE	PERCENT	LETTER GRADE	PERCENT
A+	90-100	B+	75-79
A	85-89	B	70-74
A-	80-84	B-	60-69
		F	0-59

ACADEMIC DISHONESTY

It is the student's responsibility to understand what constitutes academic dishonesty. Please refer to the University Senate Academic Integrity Policy at the following URL:

This policy describes the responsibilities, procedures, and guidelines for students and faculty should a case of academic dishonesty arise. Academic dishonesty is defined as to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. Please refer to the policy for a list of examples. The policy also provides faculty with procedures to follow in cases of academic dishonesty as well as general guidelines for penalties. For further information related to the policy, please refer to the Office of Academic Integrity at:

http://www.mcmaster.ca/academicintegrity

MISSED ACADEMIC WORK

Late assignments will not be accepted. No extensions are available except under extraordinary circumstances. Please discuss any extenuating situation with your instructor at the earliest possible opportunity.

POTENTIAL MODIFICATIONS TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

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http://www.copyright.mcmaster.ca/Access_Copyright_Agreement

STUDENT ACCESSIBILITY SERVICES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is:

http://sas.mcmaster.ca

RESEARCH USING HUMAN SUBJECTS

ONLY IF APPLICABLE

Research involving human participants is premised on a fundamental moral commitment to advancing human welfare, knowledge and understanding. As a research intensive institution, McMaster University shares this commitment in its promotion of responsible research. The fundamental imperative of research involving human participation is respect for human dignity and well-being. To this end, the University endorses the ethical principles cited in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans:

http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/

McMaster University has mandated its Research Ethics Boards to ensure that all research investigations involving human participants are in compliance with the Tri-Council Policy Statement. The University is committed, through its Research Ethics Boards, to assisting the research community in identifying and addressing ethical issues inherent in research, recognizing that all members of the University share a commitment to maintaining the highest possible standards in research involving humans.

If you are conducting original research, it is vital that you behave in an ethical manner. For example, everyone you speak to must be made aware of your reasons for eliciting their responses and consent to providing information. Furthermore, you must ensure everyone understands that participation is entirely voluntary. Please refer to the following website for more information about McMaster University's research ethics guidelines:

http://www.mcmaster.ca/ors/ethics

Organizations that you are working with are likely to prefer that some information be treated as confidential. Ensure that you clarify the status of all information that you receive from your

client. You **MUST** respect this request and cannot present this information in class or communicate it in any form, nor can you discuss it outside your group. Furthermore, you must continue to respect this confidentiality even after the course is over.

Class Schedule

Week	Date	Topic	Readings
1	Jan. 11	Introduction to m-commerce and social commerce	Yuan and Zhang (2003) Kourouthanassis and Giaglis (2012) Liang and Turban (2011)
2	Jan. 18	Wireless communication and the mobile revolution	Kalil (2009) OECD (2012), ISOC (2014)
3	Jan. 25	Mobile ecosystem	Kenney and Pon (2011) Basole (2011), Holzer and Ondrus (2011)
4	Feb. 1	Mobile commerce adoption and diffusion	Karaiskos et al. (2009) Mylonopoulos and Sideris (2006) Weber et al. (2011)
5	Feb. 8	Context-aware and location based services	Chen and Kotz (2000), Dey and Abowd (2001), Baldauf et al (2007), Lane et al (2010)
6	Feb. 15	Mobile data services (m-payment, m-health, m-learning, m-government etc.)	Dahlberg et al (2008), Shaikh and Karjaluoto (2014)
7		Study week (Feb. 20-24)	
8	Mar. 1.	Mobile enterprise, mobile work support and mobile supply chain management	Angeles (2005) Voelpel et al. (2006) Umar and Turel (2005), Dery (2012) Monares et al. (2011), Yuan et al. (2010)
9	Mar. 8	The use of smart phones and social media	Kaplan (2010), NGO (2008), Falaki et al. (2010), Eysenbach (2008)
10	Mar. 15	Social commerce and the role of Word of Mouth	Huang and Benyoucef (2013), Wang and Zhang (2012),Cheung and Thadanib (2012)
11	Mar. 22	Security and privacy issues in mobile commerce and social media	Casal (2004) Chen et al (2008) Kshetri, N. (2011) Fogel and Nehmad (2009), Stutzman et al. (2012)
12	Mar. 29	Future trends of mobile commerce and social networks	Junglas and Watson (2004) Lyytinen and Yoo (2002) Aral et al.(2013)
13	April 5	Research paper presentation	

Specific Topic Presentation Guidelines

Objective: To make a presentation that addresses a current issue on Each student will be required to make two presentations (one hour each) on two different fields one is on mobile commerce, the other is on social media.

Topic Selection: Following are the schedule of student presentation. Each topic will be presented by up to three students. Each student can select two topics from the list. You may select a subtopic based on the recommendation or your own interests. Please make sure your subtopics are not overlap with each other.

Presentation Schedule			
Weeks		**Topic**	**Sub Topics**
3-6	Feb. 2, Feb. 9, Feb. 16	Specific topics on mobile commerce	• Context aware and location based services • Mobile payments and mobile data services • Security and privacy issues in mobile commerce
9-11	Mar. 9, Mar. 16, Mar. 23	Specific topics on social media	• Smartphones and social media • Social commerce and Word of mouth • Privacy and trust in social media

Presentation and paper sharing: For each subtopic, please prepare a PowerPoint presentation and provide a copy of most valuable papers (three to four) and a list of web sites for students to share. Your presentation should not be the same as your research paper.
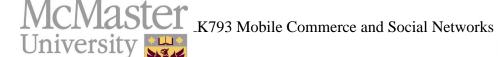
Research Paper Guidelines

Objective:

To write and present a research paper that addresses the issues of mobile commerce. Students are expected to work independently.

Topic Selection:

The topic of your research paper may be on any contemporary issue relating to mobile commerce technology, theory, and business applications. Following are suggested but not limited topics:

- Issues, challenges, and new trends of mobile commerce and social networks

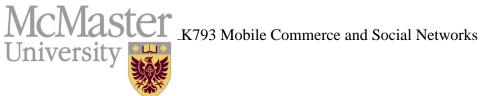- Mobile commerce applications in a special field

- Mobile communication technology and mobile ecosystem

- Mobile commerce business model and value chain analysis

- Security and privacy issues of mobile commerce and social networks

- Mobile commerce/ social commerce adoption and user behavior study

Guidelines:

1. Since many students will not have much experience within their selected topic, most of the material for the research paper will be gathered from literature surveys. The University library has many books and journals which may be of use, and your instructor may also help you in your search if you are short of material. Your best sources of information will likely be the World Wide Web and the electronic libraries available in the Innis Room.

2. Since the purpose of this research paper is to show that you have studied a particular area well, do not simply repeat information you find in your literature review. In particular, beware of the unbridled enthusiasm on many topics often appearing in the popular press. This may be a mask to cover a lack of facts. You should not consider yourself as a reporter, but as an analyst. Present your own views on the material gathered, since this develops your ability to think logically and creatively. Remember, marks are given for originality. You need to submit your research paper proposal including the title, the objective, the tasks, the methodology, and the potential value of your research.

3. Your final paper must be typed. It should be a minimum of 20 (maximum of 35) double spaced 8 x 11 typewritten pages, (not including references, figures, and appendices). However, you will not be penalized if you can put forward a good presentation in less than 20 pages.

4. Your paper should be written in a concise, crisp, academic style such as would be used in writing a research paper for conference or journal submission. Try to use diagrams and tables to get your point of view across and to "dress up" your paper's appearance.

5. Your paper should include the following sections:

- A cover page which includes the title, the course name and number, the date, and the author's' name.

- Abstract: The abstract should cover the most important points presented in your paper as well as any conclusions that should be derived from the report.

- Introduction: This section includes background material to bring the reader "up to speed" before launching into the main thrust of your report. It should also briefly discuss a general outline of the report which follows.

- Report body: The body of the report should be broken into reasonably sized sections on various aspects of the topic under consideration. Each section should be numbered and given an appropriate heading.

- Major findings and conclusions: This section should reflect the important results that the reader should have learned from the paper.

- References: You must show several references from more advanced literature (you may also reference the popular press, but it may tend towards uncritical enthusiasm). Guidelines for reference format are provided below.

- Appendices: If appropriate, appendices should be included after your reference section.

6. Jargon should not be used unless the words are carefully defined when they are first used in your report. In general, make sure you carefully define your topic, assuming that potential readers may have little or no background knowledge within the area.

7. References to gender should not appear in the paper, unless referring to an actual person. A minimal use of "he or she" is permitted instead of "he" or "she", but it is normally possible to eliminate such references entirely. For example, consider the following sentence: "The manager will normally rely on his secretary to perform her work as rapidly as possible, regardless of whether or not she has access to a word processor". A statement like this one will cost you marks in your paper, so consider the following statement as a replacement: "Managers will normally rely on their secretaries to work as rapidly as possible, regardless of whether they have access to word processors". There are other ways to achieve this effect, but this should demonstrate what is desired.

8. Sources for your material must be referenced. If you develop original material in your report, be sure to substantiate the grounds upon which you build your arguments, through references to other published material or personal communications. All of your reference material should be referred to by authors and year in square brackets, corresponding to the paper used in your reference list at the end of your paper. In your reference section, references should be listed in alphabetic order of the first author's last name.

9. Short footnotes may be used, provided that they are referenced on the same page with a special symbol such as a dagger or an asterisk. Longer footnotes should be included as appendices, to avoid breaking the continuity of the presentation.

10. Figures or tables should be numbered and should appear as soon as possible after they are referenced in the paper. However, if a large number of tables or figures are referenced in one place, it is best to move all the tables and/or figures to the end of the report.

11. Appendices should have titles and be numbered using Roman numerals.

12. All pages of the report, except the title page, should be numbered.

13. Equations should be numbered if they are referred to elsewhere in the report.

14. Grammar, spelling, sentence and paragraph structure are important. A good general reference which may be useful is the Harbrace College Handbook published by Longman Canada Limited. Other references which contain helpful sections on business report writing style are:

- Ewing, E.W., (1979). Writing For Results, New York: Wiley

- Himstreet, W.C., and W.M. Baty, (1977). Business Communications, Belmont, California: Wadsworth

- Smith, R.S., (1976) Written Communications for Data Processing, New York: Van Nostrand

- Weiss, A., (1977). Write What You Mean, New York: Amacom

15. PowerPoint presentation. You should prepare and submit (email me) your PowerPoint presentation document one day before the scheduled presentation time. You suppose to have 15 minutes presentation followed by 5 minutes discussion.