Course programme

Course code: IFI8110.DT	**Research Trends in Human-Computer Interaction**		
ECTS credits: 4	Classroom hours: 20	Spring 2017	Exam
Course objectives:	The course introduces the students to activity theory as a theoretical approach in human-computer interaction (HCI), interaction design, and related fields. Students will familiarize themselves with basic concepts and principles of activity theory and learn how the theory has informed HCI research. Students are expected to develop an ability to critically assess potential advantages and limitations of using activity theory in conceptual analyses, empirical studies, and design explorations in HCI.		
Brief description of course content:	The course will be given in English. It will comprise five 4-hour classroom sessions; in addition, the students will be required to carry out individual work. CLASSROOM SESSIONS: Classroom session will combine lectures, seminars, and workshops. The first session will start with a course introduction and continue with a lecture on the basic concepts and principles of activity theory. During the second session analytical tools based on activity theory will be discussed, and some of them will be practically tried out by the students. The third session will focus on empirical studies and theoretical analyses informed by activity theory. The theme of the fourth session will be activity-centric computing. Finally, the third session will focus on the relationship between activity theory and other post-cognitivist theories in HCI; it will be concluded with a general discussion. INDEPENDENT WORK: Writing individual course papers (3000-5000 words). Studying course literature and working on individual and/or group assignments between classroom sessions.		

Learning outcomes:	After completing the course students should:
	
	    Possess systematic knowledge about the basic concepts and principles of activity theory.
	    Know the main existing applications of activity theory in HCI and related areas.
	    Be able to apply at least one analytical tool for design and evaluation, informed by activity theory.
	    Be able to critically assess advantages and limitations of using		

	activity. theory to address concrete issues in HCI and related areas.
Assessment Methods:	Exam. The final grade is based on the course paper (instructions will be provided to the students during the course).
Lecturer(s):	Professor Victor Kaptelinin
Course title in Estonian:	Inimese-arvuti interaktsiooni uurimissuunad
Prerequisite course(s):	
Compulsory literature:	BOOK: Kaptelinin, V. and Nardi, B. 2006/ 2009. Acting with Technology: Activity Theory and Interaction Design. Cambridge, Mass: The MIT Press. PAPERS: Bardram, J. E., Jeuris, S., and Houben, S. 2015. Activity-based computing: computational management of activities reflecting human intention. AI Magazine, 36(2), 63-72. Bødker, S. and Klokmose, C.N. 2012. Preparing students for (Inter-) action with Activity Theory. The International Journal of Design, 6, 3. http://www.ijdesign.org/ojs/index.php/IJDesign/article/view/972 Kaptelinin, V. and Bannon, L. 2012. Interaction design beyond the product: Creating technology-enhanced activity spaces. Human–Computer Interaction, 27 (3), 277-309. Kaptelinin, V. and Nardi, B. 2012. Affordances in HCI: Toward a mediated action perspective. Proceedings of CHI 2012, 967-976. Sjölie, D. 2012. Presence and general principles of brain function. Interaction with Computers, 24 (4), 193-202. SUPPLEMENTARY NON-COMPULSORY LITERATURE: Activity theory (http://www.interaction-design.org/encyclopedia/activity_theory.html) Baumer, E. P. S. and Tomlinson, B. 2011. Comparing activity theory with distributed cognition for video analysis: Beyond "kicking the tires". Proceedings of CHI 2011, 133-142. Clemmensen, T., Kaptelinin, V., and Nardi, B. 2016. Making HCI

	theory work: An analysis of the use of activity theory in HCI research. Behaviour & Information Technology, 35 (8), 608-627. Cultural-historical activity theory (http://www.helsinki.fi/cradle/chat.htm) Matthews, T., Rattenbury, T., & Carter, S. 2007. Defining, designing and evaluating peripheral displays: An analysis using activity theory. Human-Computer Interaction, 22(1-2), 221-261. Sjölie, D. 2012. Presence and general principles of brain function. Interaction with Computers, 24 (4): 193-202.
Replacement literature:	n/a
Participation and exam requirements:	All doctoral students who are interested in human-computer interaction, interaction design or related fields are eligible to subscribe to the course.
Requirement for independent work:	Studying the required literature, timely submission of the course paper
Grading criteria:	Evaluation criteria for grading course papers: use of relevant literature, argumentation, creativity, critical reflection, presentation quality. A – The course paper (*CP*) is excellent on most of the criteria stated above and very good on the others. B – The CP is very good on most of the criteria and at least satisfactory on the others. C – The CP is good on most of the criteria and at least satisfactory on the others. D – The CP is satisfactory on most of the criteria and at least satisfactory on the others, E – The CP is satisfactory on most of the criteria.
Information about the course: (Topics by contact session, deadlines of independent works and exams/assessments times)	CLASSROOM SESSION TOPICS: 2017-03-27: Course introduction. Activity theory: Basic concepts and applications. 2017-03-28: Analytical tools based on activity theory. 2017-03-29: Empirical studies and theoretical analyses informed by activity theory. 2017-03-30: Activity-centric computing.

	2017-03-31: Activity theory and other post-cognitivist theories in HCI. Concluding discussion.
	The deadline for submitting course papers is April 21, 2017.

Teaching Unit in charge:	School of Digital Technologies
Course programme is prepared by:	Victor Kaptelinin
Date:	2017-01-27

The course program is registered in the academic unit:

Date:	27.01.2017
Name of academic coordinator:	Viktoria Humal