Social Gaming / Social Computing  SS 2013

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Organisational Aspects of the Module Social Gaming

- Lecture of module Social Gaming (IN0036) == lecture Social Computing (IN2241)
- Social Gaming lab-course: only for students of Games Engineering
- Lecture open to all students

- Module == 3h lecture + 3h lab-course / week
- 10 ECTS Credits = 18 h workload / week → approx. 9 h / week for lab course and lecture each
- 4th semester (summer term = 14 weeks); 2013: April 15th.- July 20th.
- Approx. 150 students
- Lab-course: approx. 37 groups of 4 students work together on each of 4 tasks of 3 weeks each.

- We will use the E-Learning Web-Platform Piazza
  https://piazza.com/tum.de/spring2013/in00362241/resources

- Lecture + lab-course websites:
  http://www11.in.tum.de/Veranstaltungen/SocialGaming2013(IN0036)
  http://www11.in.tum.de/Veranstaltungen/SocialGaming2013-LabCourse

- Lectures and lab course task introductions will be recorded and will be made available via Piazza
Contents of the Lecture

Emphasis on Social Computing

- Foundations of Social Computing, Social Media, Web2.0, (mobile, decentralized) Social Networking
- Models of social context
- Social games and leisure time related social computing applications on the Web
- Basics of Sociometry: Centrality, dense subnetworks, graph clustering,
- Profile mining
- Social Network Visualization (static and dynamic)
- Properties and models of real world networks
- Social relations in space and time
- Basics of Social Signal Processing
- Basics of Game Theory

Learning Targets of the Lecture

- Knowledge acquisition related to the lecture's content focuses → ability to read papers in the field, basics for own scientific work in the field (theses)
- Providing a basis for creatively transferring ideas from social computing to the development and improvement of new social game concepts
- Broadening the view on social games, getting to know relations to and fuzzy boundaries to other leisure time related (web-) applications

Contents of the Lab-Course

Emphasis on Social Gaming

- Social games with a purpose, serious gaming
- Mobile social games
- Sociometry applied to networks in MMOGs
- Social Signal Processing example, application to games

Learning Targets of the Lab Course

- Further developing programming skills
- Gain further practical experience with software development in small groups
- Apply concepts of Social Computing for Social Games
Composition of Teams for Lab-Course

- Teams of 4 are established by staff (randomized algorithm)
- New teams are established for each of the 4 tasks
- Each team member privately rates the performance and commitment of each team member (including herself) with marks on usual scale and communicates marks to staff via email

Exam and Grading Schema

- **Exam of module:**
  - written exam (closed book), 90 minutes;
  - topics: lecture only
  - exact modalities: separate sheet published on Piazza website

- **Lab Course:**
  - formally: „benotete Midterm-Leistung“
  - group handing in solutions for the 4 tasks → separate marks for each task for each group; total mark for lab-course = average of 4 marks
  - If lab-course mark L better than mark of written exam W: total mark of module = \( \frac{1}{2} (L+W) \)

Exam and Grading Schema

- **Criteria for lab course marks per task:**
  - creativity, correctness, completeness, extension
  - if some task is not handed in at all → only this task will receive 5.0; other tasks can still be handed in
  - if only parts of a task are handed in → deductions in mark
  - Normally all four group members receive the same mark. If the performance and commitment marks given by the other team-members strongly differ: marks for individual members may be upgraded or downgraded

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Alternative Company Tasks

- Idea: some of the 4 three week standard tasks can be replaced by tasks provided by companies from the game industry
- Companies design and support 3, 6, or 9 week company tasks
- Benefits for the students:
  - early contact with game industry
  - real problems in real companies
  - productive tools and approaches
- First standard task (weeks 1, 2, and 3) must be done by all students, standard tasks 2 (week 4,5,6), 3 (weeks 7,8,9), and 4 (week 10,11,12) may be replaced.

Interaction with Lab Course Tutors

- Time plan for company tasks:
  - Introduction: Tuesday, April 16, 2013 (week 01) 18:00-20:00, Interimshörsaal 2
  - Deadline for applications: Sunday, April 21, 2013 (week 01), 24:00
  - Selection of groups: until Monday, April 22, 2013 (week 02), 20:00
  - Information about acceptance: Monday, April 22, 2013 (week 02), 20:00 via email
  - From Monday, May 6 (week 04): company tasks start.

- Company tasks are introduced in first lab course meeting, Tuesday, April 16, 18:00-20:00 (Interimshörsaal 2)
- Requirements and form of application for company tasks:
  - State 4 members of group,
  - provide 4 short CVs,
  - 4 transcripts of records,
  - and a (max) one page statement describing the motivation of your group for the task.
  - state which of

- via discussion board on Piazza only (⇒ important(!) also students help students on the board (!))
- Each day of the week, one of the tutors is responsible for answering questions on the board.
- If a problem is posted on day x, the respective tutor is responsible for the problem/issue until it is solved
- Tutors contact PhD student responsible for current task if necessary. For organizational issues: tutors contact Groh.
Standard Task 1: Social Games with a Purpose

- GWAP for ontology engineering / engineering of soft ontologies
- Dataset of tag triples tagging works of art (from Artigo / LMU)
- Purpose: designate concept descriptions as sets of tags:
  - manually (via GWAP / crowdsourcing)
  - via clustering
  - compare both

Standard Task 2: Location-Based Mobile Social Game

- Combine spatio-temporal context and short term social context (co-location events) into location-based mobile social game
- Platform: Android (Java), Devices: privately owned mobile devices or Eclipse simulator only, devices can be borrowed in very limited numbers from chair.
- Ideas:
  - Scotland Yard
  - Personal Mobile Geocaching
  - Location Based Dating
  - Urban Quiz-taxi

Standard Task 3: Social Networks and Word of Mouth

- Task 1: Identify Gold-Farmers using self implemented Social Network Analysis techniques following the approach of a scientific paper; Given: real world dataset
- Task 2: Simulate and visualize word of mouth propagation on real world social network dataset using simple percolation theory and disease spreading models on networks
Standard Task 4: Social Signal Processing

- Task 1: Process interaction geometry to characterize short term social context. (Implement GMM classifier in Java, compare with other classifiers (WEKA) both on example dataset)

- Task 2: Implement face recognition with Eigenfaces (PCA) in order to detect foto co-presence as short term social context

- Task 3: Design game using Social Signal Processing techniques

Hardware & Computers

- For Task 3: Android smartphones can be borrowed for those groups that do not have an android smartphone and want to test their solutions on the actual device

- It is extremely helpful and very much desired that students state until the end of task 1 (end of week 03) whether they privately possess an Android device

- If other hardware (e.g. the Beagle boards) is intended to be used: contact Groh

- It is assumed that each student has a private laptop. Students without laptop that want an account on one of the desktop computers: contact Groh

Time Plan Lecture

- Tuesdays 12:00 – 14:00 (weekly), Interimshörsaal 2

- Thursdays 11:00 – 13:00 (every two weeks, starting in week 2), Interimshörsaal 2

Time Plan Lab Course

- Task 1:  
  Introduction: Tuesday, April 16, 2013 (week 01) 18:00-20:00, Interimshörsaal 2  
  Solution deadline: Tuesday, May 14, 24:00

- Task 2:  
  Introduction: Tuesday, May 07, 2013 (week 04), 18:00-20:00, Interimshörsaal 2  
  Solution deadline: Tuesday, June 04, 24:00

- Task 3:  
  Introduction: Tuesday, May 28, 2013 (week 07), 18:00-20:00, Interimshörsaal 2  
  Solution deadline: Tuesday, June 25, 24:00

- Task 4:  
  Introduction: Tuesday, June 18, 2013 (week 10), 18:00-20:00, Interimshörsaal 2  
  Solution deadline: Tuesday, July 09, 24:00
TO DOs for Students during standard task 1 (weeks 1,2,3)

- until Friday, May 1, 24:00:
  Please state [here](#) whether you own an Android device!

- until Sunday, April 21, 24:00:
  [Apply](#) for industry tasks for the lab course.