

T-110.7190 Spring 2008
Future Internet Architectures
Seminar

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Today's schedule

- Introductions (20 min)
 - *Who we are, why we are here*
- Introduction to the seminar (15 min)
 - *Goals*
 - *Working methods and grading*
- Paper assignments and schedule (10 min)
- Grad Student topics (30 min)
- Everything else (the rest of the time, as needed)

Introductions

- Goal: to learn *who* we are and *why* we are here
- Method:
 - Discussion in pairs, groups of 4, and groups of 8
 - Summary discussion
- Questions to answer:
 - *Who* am I?
 - *Why* am I here, what are my goals?
 - *What* do I want to learn?

Step I: Pair discussion

- Pair with a person next to you
- Tell your pair in *one* minute
 - Who you are (if you don't know each other)
 - **Why** do you want to take this course?
 - What do you **plan to learn**

Step 2: Groups of four (4 min)

- Form a group of 4 with a pair next to you
- Summarize, in one minute, to the other pair
 - *Who* you are
 - *What* are your expectations for this course
 - What do you **plan to learn**

Step 3: Groups of eight (4 min)

- Join with another group next to you
- Summarize, in one minute, to the other group
 - *Who* you are (just names)
 - *What* are your expectations
 - The most important things you **plan to learn**
- Together, decide what are the dominant (most often expressed) *expectations* within the group
- Prepare to present the expectations
 - Select one person to present them

Step 4: Expectations (5 min)

Introduction to the seminar

- Goals
- Content
 - Recent architectural and protocol work
 - Introduction to work on *architectural principles*
- Working methods and grading

Goals

- Foster understanding of the future architecture for a global inter-network
- Foster understanding in architectural design and assumptions underlying different designs
- Critical approach
- For grad students: learn to write papers

Content

- Papers on architectural design and principles thereof
 - *Everyone* reads the papers at home
 - Introduction by an undergraduate (15-20 min)
 - Followed with discussion (20-30 min)
- Papers produced by graduate students
 - Topics decided with Mikko and Pekka
 - Written, with supervision from Mikko/Pekka
 - Presented at full day workshop

What is Architecture?

“An architect, in the original sense, is not concerned with the creation of building materials—making glass with better thermal qualities or girders with higher yield strength. An architect is concerned with **how** the range of building materials can be **put together** in desirable ways to achieve a building **suited to its purpose**. It is the **design process** that assembles the parts into a useful, pleasing and cost-effective (some times) whole that is called ‘architecture’.” Dave Clark

Architecture

- Only makes sense in the context of a set of objectives
- Design principles, e.g.
 - end-to-end principle
 - trust-to-trust principle
- Architectural design patterns, e.g.
 - layering
 - modularity

Working methods and grading

- Weekly seminar meetings on Wednesdays
 - Brief introduction to the papers + **discussion!!**
- Full day workshop, tentatively 23.4?
- Emphasis on *Research*
 - Your own critical thinking
 - Discussion!!!

Passing requirements for undergraduate students

- Two paper introductions, 15-20 min each
 - send the slides to xxx@tml.tkk.fi
 - latest on the **Friday** before the presentation
 - each day late = -0.7 grades
- 70% participation to the weekly meetings
 - read the papers before the meeting
 - prepare to ask questions and discuss
- Participation to the full day seminar
- Grading based on presentations + activity

Passing requirements for graduate students

- 60% participation to the weekly meetings
 - a brief write up of missed papers, sent to the assistants
- Writing a paper on own topic, 8-12 pages
 - May be a literature survey (grade 1-4)
 - May represent original work (grade 2-5)
- Presenting the paper in full day seminar
- Grading based on paper (70%) + presentation

Grading summary

- Undergraduate
 - Minimum participation: pass/fail
 - Quality of presentations: 1-5
 - Activity during meetings ± 1 grades
- Graduates
 - Minimum participation + writeups pass/fail
 - Quality of paper: 70% of 1-5
 - Quality of presentation: 30% of 1-5

Instructions for the weekly presentations

- 15-20 minutes (at most 10 slides)
 - If you haven't made presentations in English before hand, practice in front of a mirror and measure the time spent
- Focus on
 - what is *important* in the paper
 - what is difficult in the paper
- Own thoughts and provocative questions a plus

Format of papers

- About 8-12 pages
- May be a literature survey or original work
- Intermediate versions as plain text or PDF
- Final version in LaTeX and PDF
 - Use TML course specific LaTeX template
 - A link will be provided by the assistants
- Will be published in TML technical report
- Submission to elsewhere encouraged

Topics for grad students

Everything else

- Questions?
- Comments?
- Disagreements?