

# TDT71 Game Development

General information about the  
content, goal and agenda.



# About me...

- ✦ Position: Professor, Inventor/Co-founder Kahoot!/ PlayPulse/Maenage
- ✦ Email: [alfw@idi.ntnu.no](mailto:alfw@idi.ntnu.no) / P: 735 94485 / IT-020
- ✦ Research interests: Game-based Learning, ExerGames, Game development, Game Technology, Software Engineering
- ✦ Life: Church(band music), Cycling, Soccer, Games
- ✦ Family: a wife and 3 daughters



# Course information

- **Responsible:** Alf Inge Wang
- **Work load:** 3,75 SP
- **Syllabus:** Various articles from journals, proceedings and magazine.
- **Teaching approach:** 3 workshops where the students present the articles.
- **More info:** Look at [ntnu.no/wiki/display/tdt71](http://ntnu.no/wiki/display/tdt71)



# Course goal

- “The course is an introduction to:
  - Game history and concepts
  - Use of games to motivate/engage
  - Game development



# Course syllabus

## An overview

- Main topics:
  - Game history and concepts: 3 articles (87 pages)
  - Games, Engagement and Motivation: 3 articles (43 pages)
  - Game Development: 5 articles (48 pages)
- Number of pages: 178 pages in total
- Get the articles:
  - Download PDF from TDT71 from [ntnu.no/wiki/display/tdt71](https://ntnu.no/wiki/display/tdt71)



# Syllabus: Game history and concepts

- Mark Overmars, “*A Brief History of Computer Games*”, Web, January 30, 2012 (35 pages)
- Leigh Achterbosch, Robyn Pierce and Gregory Simmons, “*Massively Multiplayer Online Role-Playing Games: The Past, Present, and Future*”, ACM Computer Entertainment 5(4), March 2008. (33 pages)
- Carsten Magerkurth, Adrian David Cheok, Regan L. Mandryk, and Trond Nilsen, “*Pervasive Games: Bringing Computer Entertainment Back to the Real World*”, ACM Computers in Entertainment 3(3), 2005 (19 pages)



# Syllabus: Games, Engagement and Motivation (43 pages)

- Alf Inge Wang, *“The wear out effect of a game-based student response system”*, Computers & Education 82 (2015): 217-227. (11 pages).
- 5. Tom W. Malone, *“What makes things fun to learn? Heuristics for designing instructional computer games”*, 3rd ACM SIGSMALL Symposium, 1980. (8 pages)
- 6. Penelope Sweetser and Peta Wyeth, *“GameFlow: a model for evaluating player enjoyment in games”*, ACM Computers in Entertainment 3(3), 2005. (24 pages)



# Game development (48 pages)

- Jonathan Blow, "*Game Development: Harder Than You Think*", pp. 28-37, Queue 1(10), February 2004. (10 pages)
- Michael Zyda, "*From Visual Simulation to Virtual Reality to Games*", IEEE Computer, vol. 38, no. 9, pp. 25-32, Sept., 2005. (8 pages)
- David Callele, Eric Neufeld, Kevin Schneider, "*Requirements Engineering and the Creative Process in the Video Game Industry*", pp. 240-252, 13th IEEE International Conference on Requirements Engineering (RE'05), 2005. (13 pages)



# Syllabus: Game Development...

(48 pages)

- Apostolos Ampatzoglou, Alexander Chatzigeorgiou, “*Evaluation of object-oriented design patterns in game development*”, Information and Software Technology 49, 2007. (10 pages)
- 11. Penelope Sweetser and Janet Wiles, “*Scripting Versus Emergence: Issues for Game Developers and Players in Game Environment Design*”, International Journal of Intelligent Games and Simulations, 4(1), 2005. (9 pages)



# Organization

- Three workshops:
  - Tuesday 12th of September 16:00-18:00 R54
  - Tuesday 26th of September 16:00-18:00 R54
  - Tuesday 3rd of October 16:00-18:00 R54
- The students present the papers in the course in 10 minute presentations
- Group problem, discussions & quiz



# Your assignment

- ✦ Choose one of the papers from the syllabus to present
  - ✦ Max 10 minutes presentation
  - ✦ Create at least 5 multiple-choice questions for Kahoot! from the paper with four answers (one or more correct)
    - ✦ Send questions to [alfw@idi.ntnu.no](mailto:alfw@idi.ntnu.no)
  - ✦ Present your paper at one of the workshops!



# Summary



- Examination:
  - **Thursday 30th November or  
Friday 1st of December**
- Questions?