# IDT71 Game Development

General information about the content, goal and agenda.

#### About me...

- Position: Professor, Inventor/Co-founder Kahoot!/PlayPulse
- Email: <u>alfw@idi.ntnu.no</u> / P: 735 94485 / <u>IT-020</u>
- Research interests: Game-based Learning, ExerGames, Game development, Game Technology, Software Engineering
- Life: Church(band music), Music Cycling, 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

### Course goal

- The course is an introduction to:
  - Games, history and players
  - Use of games to motivate/engage
  - Game development

### Course syllabus An overview

- Main topics:
  - Games, history and players: 4 articles (86 pages)
  - Engagement and Motivation: 4 articles (47 pages)
  - Game Development: 4 articles (42 pages)
- Number of pages: 175 pages in total
- Get the articles:
  - Download PDF from TDT71 from <a href="https://nthu.no/wiki/display/tdt71">nthu.no/wiki/display/tdt71</a>

## Syllabus: Games, history and players (86 pages)

- Mark Overmars, "A Brief History of Computer Games" (35p)
- Holin Lin and Chuen-Tsai Sun, "Massively Multiplayer
   Online Role- Playing Games (MMORPGs)" (7p)
- Carsten Magerkurth, Adrian David Cheok, Regan L.
   Mandryk, and Trond Nilsen, "Pervasive Games: Bringing Computer Entertainment Back to the Real World" (19p)
- Juho Tamari and Janne Tuunanen, "Player Types: A Metasynthesis" (25p)

# Syllabus: Engagement and Motivation (47 pages)

- Tom W. Malone, "What makes things fun to learn?
   Heuristics for designing instructional computer games"
   (8p)
- Penelope Sweetser and Peta Wyeth, "GameFlow: a model for evaluating player enjoyment in games" (not Section 4) (14p)
- Alf Inge Wang et al., "The effect of points and audio on concentration, engagement, enjoyment, learning, motivation and classroom dynamics using Kahoot!" (10p)
- Alf Inge Wang et. al, "Evaluation of the Game Exermon a Strength Exergame Inspired by Pokémon Go" (15p)

### Game development (48 pages)

- Penelope Sweetser and Janet Wiles, "Scripting Versus Emergence: Issues for Game Developers and Players in Game Environment Design" (9p)
- David Callele, Eric Neufeld, Kevin Schneider,
   "Requirements Engineering and the Creative Process in the Video Game Industry" (13p)
- Alf Inge Wang and Njål Nordmark, "Software Architectures and the Creative Processes in Game Development" (14p)
- Rabail Tahir and Alf Inge Wang, "Codifying Game-based Learning: The LEAGUE framework for evaluation" (6p)

### Organization: Three workshops

- Games, history and players
   Thursday 10th of September 14:15-16:00 Zoom
- Engagement and motivation
   Thursday 17th of September 14:15-16:00 Zoom
- Game development
  Thursday 24h of September 14:15-16:00 Zoom
- 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 <u>alfw@idi.ntnu.no</u>
  - Present your paper at one of the workshops!

## Summary



- Examination:
  - Thursday 26th or Friday 27th of November
- Questions?