



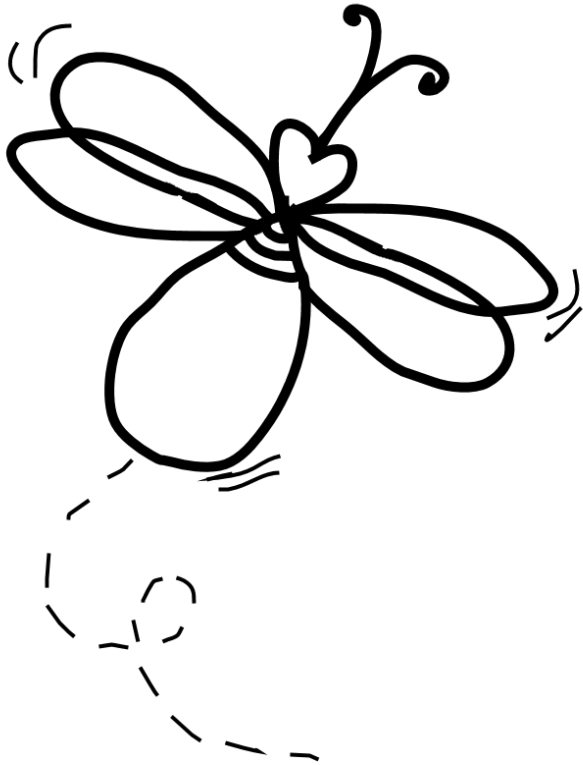
Norwegian University of  
Science and Technology

# TDT71 Game Development

Course introduction

Professor Alf Inge Wang





# Agenda

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- ✓ About me...
- ✓ Course information
- ✓ Course goal
- ✓ Syllabus
- ✓ Organization
- ✓ Assignment



# About me...

- **Name:** Alf Inge Wang
- **Office:** 304, PTS2, NTNU
- **Phone:** 73594485
- **Email:** [alfw@idi.ntnu.no](mailto:alfw@idi.ntnu.no)
- **Position:** Professor in Game Technology
- **Private interests:** Family life (1 wife + 3 daughters), Church, Band, Video Games, Jogging, Biking



# My background

- **Short summary:**

- 1983: Discovered how to program!
- 1993: Bachelor Degree: Micro Electronics
- 1995: Master Degree: Software Engineering
- 1996: Researcher SINTEF/NTNU.
- 2001: PhD Degree: Software Engineering
- 2001-2003: Post doc.
- 2003-2012: Associate professor
- 2012- ... Professor in Game Technology
- 2012-... Inventor/Co-founder Kahoot! (kahoot.com)
- 2017-... Co-founder PlayPulse (playpulse.no)
- 2020-... Inventor/Co-founder BitPet (bitpet.io)

- **Research:** Game-based Learning, Game Technology, Mobile Computing, Education, ExerGames, Software Engineering, Software Architecture



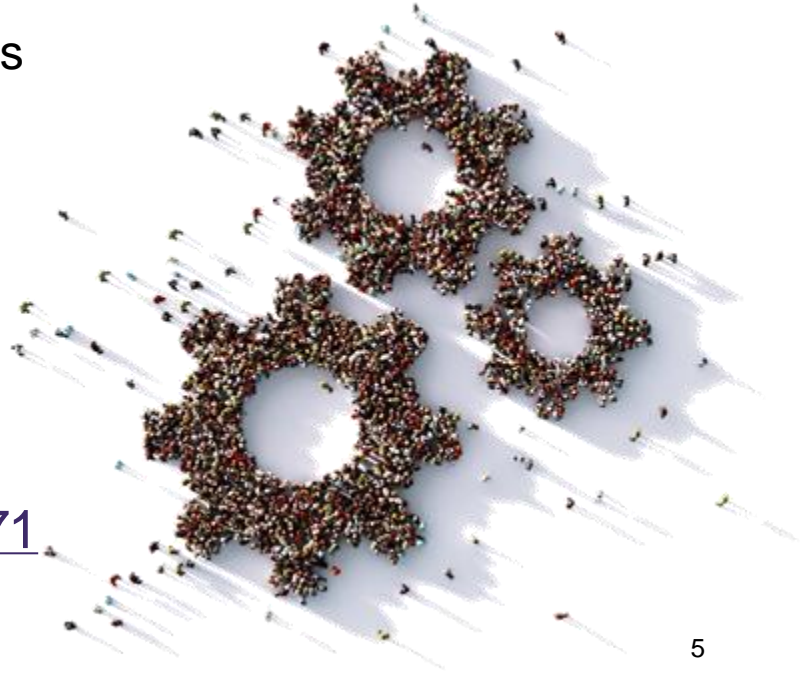
**Kahoot!**

 **playpulse**

**BitPet®**

# Organisational information

- **Lecturer:**
  - Alf Inge Wang, [alfw@idi.ntnu.no](mailto:alfw@idi.ntnu.no), 7359 4485, IT-020
- **Teaching approach:**
  - Students present the articles in workshops
- **Workshops:**
  - Monday 14:00-16:00 (Zoom)
  - 9/16/23 of September
- **Workload:** 3,75 SP
- **Syllabus:** Research articles
- **Grade:** Essay
- **More info:** <http://ntnu.no/wiki/display/tdt71>



# Course goal

- Introduction to:
  - Games, History and Players
  - Use of Games to Motivate & Engage
  - Game Development



# Syllabus overview

- Main topics:
  - Games, History and Players: 4 articles (82p)
  - Engagement & Motivation: 4 articles (47p)
  - Game Development: 4 articles (42p)
- Total number of pages: 171p
- Get articles:
  - Download from <http://ntnu.no/wiki/display/tdt71>



# Syllabus: Games, History and Players

- Mark Overmars, *“A Brief History of Computer Games”* (35p)
- Holin Lin and Chuen-Tsai Sun, *“Massively Multiplayer Online Role- Playing Games (MMORPGs)”* (7p)
- Hao Wang and Chuen-Tsai Sun, *“Game Reward Systems: Gaming Experiences and Social Meanings”* (15 pages)
- Juho Tamari and Janne Tuunanen, *“Player Types: A Meta-synthesis”* (25p)





# Syllabus: Engagement and Motivation

- 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)



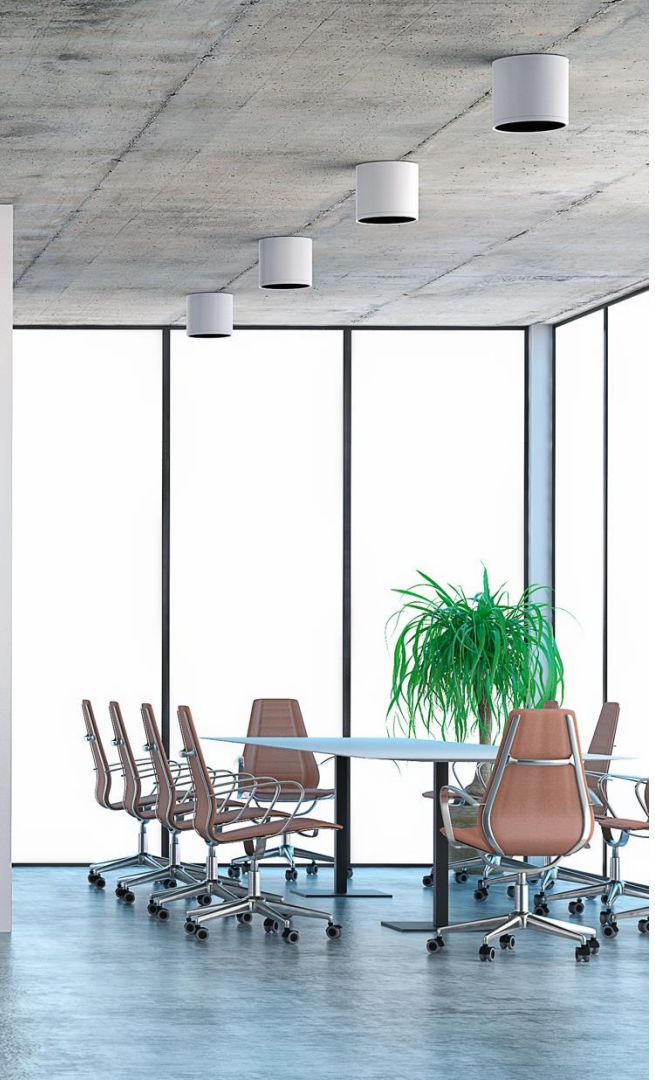
# Syllabus: Game Development

- 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)



# Workshops

- Workshop 1: Games, History and Players
  - Sept. 9<sup>th</sup> 14:00-16:00 on Zoom
- Workshop 2: Engagement and Motivation
  - Sept 16<sup>th</sup> 14:00-16:00 on Zoom
- Workshop 3: Game Development
  - Sept 23<sup>rd</sup> 14:00-16:00 on Zoom



# Your assignment

- Choose one of the papers from the syllabus to present (in pair)
  - Sign up for paper on the wiki-page for the course
  - Max 10min presentation
  - Present your paper at one of the workshops
  - Participate on the workshops!





# The Essay

- Choose a video game
- Discuss and analyze the game using at least six articles from the syllabus.
- Do not explain/describe papers in the syllabus.
- Purpose: To demonstrate understanding of the syllabus by analyzing a game.



# The Essay (2)

- Length: Max 2000 words excluding references, figures and tables.
- References: Use either [2] or (Schultz, 2022)
- Submission: Send email to [alfw@idi.ntnu.no](mailto:alfw@idi.ntnu.no)
- Deadline: November 29<sup>th</sup> (end of the day)
- Language: Norwegian or English
- Grading: A-F

