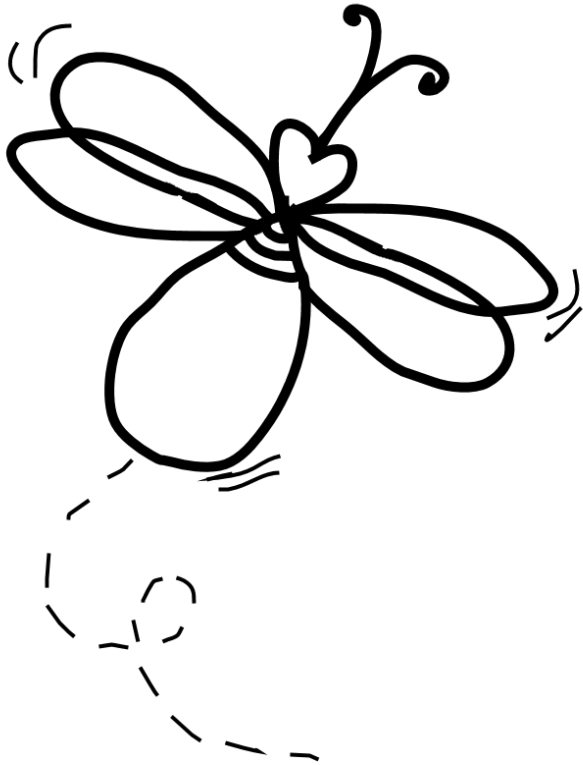# ○ NTNU | Norwegian University of Science and Technology

TDT71 Game Development

Course introduction

Professor Alf Inge Wang

Agenda

- ✓ 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
- **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
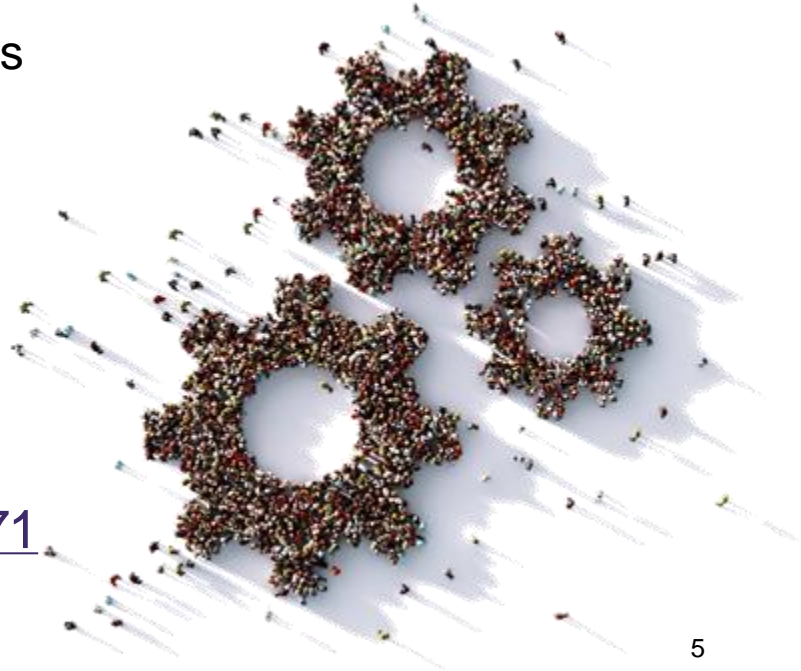
Organisational information

- **Lecturer:**
  - Alf Inge Wang, 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

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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)

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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. 9th 14:00-16:00 on Zoom

- Workshop 2: Engagement and Motivation
  - Sept 16th 14:00-16:00 on Zoom

- Workshop 3: Game Development
 - Sept 23rd 14:00-16:00 on Zoom
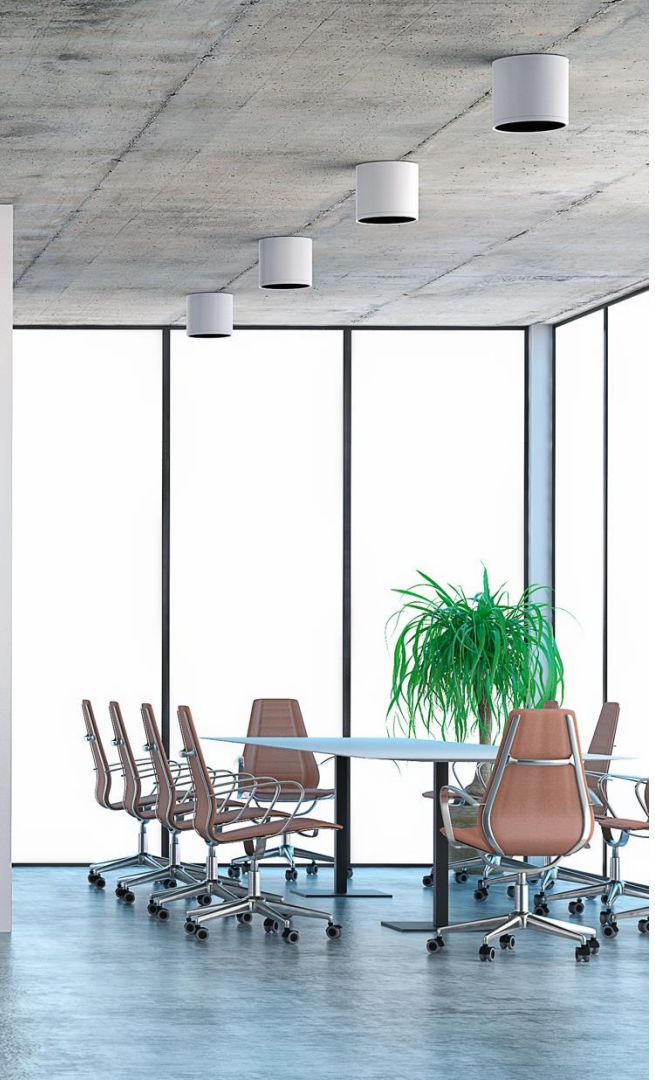
Your assignment

- 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

- On video game of choice
- Discuss game in context of articles in the syllabus
- Must relate game to at least:
  - Two articles from Game Development
  - Two articles from Engagement & Motivation
  - Two articles from Games, History and Players
- Do not explain/describe papers in the syllabus
- Main focus on papers in context of game, not the game
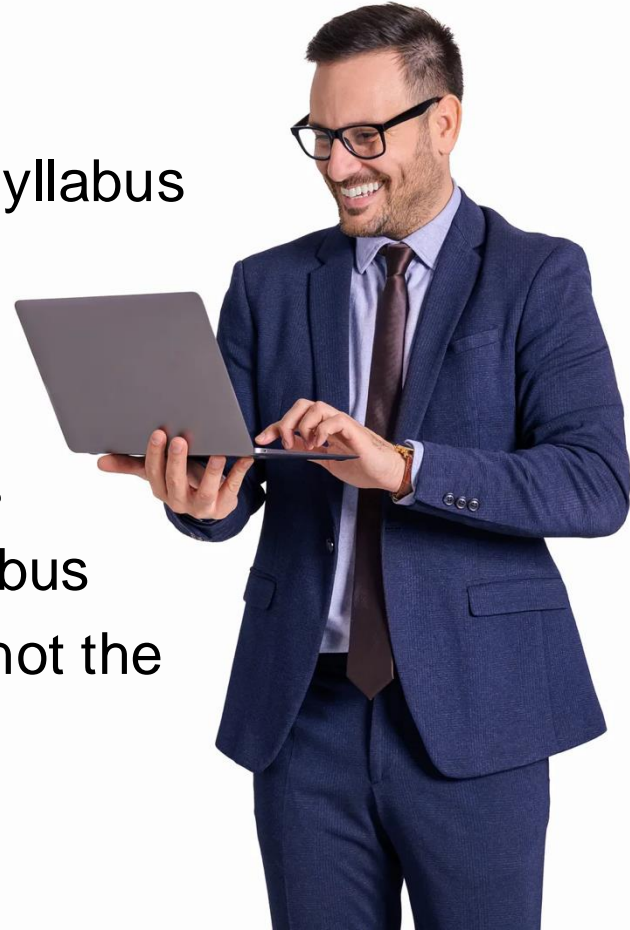
The Essay (2)

- Length: Max 2000 words excluding references, figures and tables.

- References: Use either [2] or (Schultz, 2022)

- Submission: Send email to alfw@idi.ntnu.no

- Deadline: November 29th (end of the day)

- Language: Norwegian or English

- Grading: A-F