# Procedural Content generation: Adaptive dungeon generator

Mikkel Stolborg
*Games and Technology*
*IT-University of Copenhagen*
*Copenhagen, Denmark*
*Email: msto@itu.dk*

Mats Stenhaug
*Games and Technology*
*IT-University of Copenhagen*
*Copenhagen, Denmark*
*Email: msten@itu.dk*

***Abstract*—In this project we create a dungeon generator which uses player input as base for the generation. As the player moves throughout a dungeon, the actions taken determines how the rest of the dungeon is generated.**

## 1. Introduction

We wanted to make a board game dungeon map creator in this project. Having rooms, doors, items and interactables being procedurally generated on the fly, as we journeyed

Figure 2. Initial dungeon layout. A center room with the player token and 4 doors leading out from it.

When the player walks through the first door (any of the initial 4 doors), the algorithm creates a new room in that direction. Since this is the first room that is generated, it will also contain an 0anable spot where, 0f you walk on it, an option will appear on the screen that will allow the

The number of doors created in a new room is a direct consequence of how adventurous the player is. There is always a chance for creating any number of doors, but the chance of more than one door is significantly increased based on the players adventureness.

**4.1.1. AdventurenessCalc scale value.** The adventureness-Calc value is an attempt to gather information about the players mindset real-time throughout the game. The value is calculated based on the rous
compared to how long the player has moved. The idea