AI Designing Games
With (or Without) Us

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Who am I?
Institute of Digital Games – game.edu.mt

Game Artificial Intelligence, Affective Computing, Computational Creativity, HCI
Game Technology

User/Player Modeling
Content Generation
Games for Artificial Intelligence
Games are hard and interesting problems
Games are content-intensive
Richest (?) HCI
Games realise AI’s long-standing goals.
Artificial Intelligence for Games
“The creation of new game content automatically, through algorithmic means”

What is Procedural Content Generation?
Computational Creativity in and for Games!
“Computational Creativity is a recent area of creativity research that brings together academics and practitioners from diverse disciplines, genres and modalities, to explore the potential of computers to be autonomously creative or to collaborate as co-creators with humans.”

-- PROSECCO Network of Excellence
“The study of Computational Creativity within and for digital games”

Within: Games as an ideal canvas for studying CC

For: Games benefit as products from artifacts of CC
Liapis, Yannakakis, Togelius: "Computational Game Creativity," in *Proceedings of the Fifth International Conference on Computational Creativity*, 2014.
Alice, are you angry at Trip?
MARRY ME?
Yavalath (#2)
(game Yavalath
(players White Black)
(board (tiling hex) (shape hex) (size 5))
(end
  (All win (in-a-row 4))
  (All lose (and (in-a-row 3) (not (in-a-row 4)))))
)

Procedural FPS Level Generation

Orchestration above all!
Orchestrating Level and Weapon Design
Acknowledgements
Welcome to the Artificial Intelligence and Games book. This book aims to be the first comprehensive textbook on the application and use of artificial intelligence (AI) in, and for, games. Our hope is that the book will be used by educators and students of graduate or advanced undergraduate courses on game AI as well as game AI practitioners at large.

**Final Public Draft**

The final draft of the book is available [here](https://gameaibook.org)!
Artificial Intelligence and Games 2018

International Summer School | 28th May - 1st June 2018, Chania, Greece

Thank you!
school/gameaibook.org