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# Playable (Research) Concepts Workshop: Translating your topics into tiny games

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## ABSTRACT

In this workshop, the participants bring their own research topics and concepts to create small games with the game making tool – Construct 3. We invite the participants of Academic Mindtrek to think about and experiment with how, for instance, figures in their research papers would translate into interactive experiences. What if instead of pictures, tables and charts, research or articles would use small embedded interactive games? What would such games be like, and what are the ways in which games can communicate? We call these “playable concepts”.

## CCS CONCEPTS

• **Applied computing** → **Computer games**.

## KEYWORDS

minigames, game making tools, game workshop, playable concept, games as communication

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## 1 SHORT DESCRIPTION OF THE WORKSHOP

During the workshop, participants learn to create their own games using Construct 3. While doing so, they explore the process of translating research topics or concepts into games. The workshop combines hands-on game making with discussion; around the scope, limitations, and potential of Playable Concepts.

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Upon completing the workshop, each participant will have at least one small game of their own. The games created during this workshop will be stored and showcased through the Playable Concepts web archive for further research purposes.

The participants do not need any prior game making skills, but they must bring their own laptop. Software used in this workshop will be provided by the organisers.

## 2 CONSTRUCT 3

Construct is an HTML5-based 2D game editor, developed by Scirra Ltd [7]. Primarily aimed at non-programmers, Construct 3 allows quick game prototyping possibilities and iteration in a drag-and-drop fashion. We have selected Construct 3 as the game making tool for the Playable Concepts workshop since it is a beginner-friendly tool with fast onboarding and good export options. As part of the workshop, participants are taught the basics of game making with the Construct 3 web application and get to make their own game using the Playable Concepts asset library. The participants will get access to the full features of the tool for the duration of the workshop.

## 3 PLAYABLE CONCEPTS

We are living in an era of images, slowly evolving from a verbo-centric communication of discourses into viscourses [1]. Stenros and Kultima argue that the next step would be the era of ludources – the era of using gameful language to communicate meaning [8]. To follow this thought, we are asking the participants of the workshop to think what if instead of using pictures, tables and charts, their research papers used embedded interactive games to communicate concepts and findings?

This workshop contributes directly to the on-going research project “Playable Concepts” (PlayCo). The PlayCo project explores the possibilities of using small and minimalist digital games that explain one particular concept. Nealen, Saltsman, and Boxerman define minimalist games as a small set of rules, focusing on possibly only one core mechanic [6]. These playful explorations are deliberately abstract with a simple, easy to use controls but (possibly) deep systemic complexity. Followed by this notion, our primary aims are

to explore: 1) how, and what aspects of a game mechanic can convey a concept or meaning, 2) how to encourage that game making can be accessible for all, particularly through teaching game making to non-game-creators, 3) the domains of games as a form of expression. These topics are explored through a series of workshops organised for teachers, academics and educators, and case analyses of the games created inside the project.

By doing so, we are interested in finding out how games can be utilised as part of other material, such as a web-article containing text or online textbooks in a similar role that images, infographics or videos do. Playable concepts relates to such phenomena as minigames, notgames, newsgames [2], interactive infographics and similar.

Additionally, PlayCo runs workshops introducing future game creators to the game creation process. Through this, we hope to further explore the role of games as part of communicative and educational materials and encourage the use of, and production of, games among non-traditional game creators – such as teachers or researchers, outside of the domains of game development and software engineering. In the project, we are also building a library of templates to be modified by anyone for explaining new concepts, as HTML5 based (embeddable) games which can also be used as part of different educational or communicational materials.

#### 4 SCHEDULE AND STRUCTURE OF THE WORKSHOP

The estimated duration of this workshop is three (3) hours. The workshop starts with an introduction to Playable Concepts and tutorial of game making tool Construct 3. During the second part of the workshop, each participant gets to design their own game (using their own research topic or concept) with the help of a playful game design brainstorm framework [5], [4], [3], [9] instructed by the organizers. Finally, the games created during the workshop are exported for further use, showcased, and the workshop format itself is assessed and discussed.

#### 5 TAKEAWAYS FOR THE PARTICIPANTS

Each participant will create one small HTML5 game on a word, phenomenon or concept of their choice illustrating a small part of their own domain of expertise. They will also learn the main functionalities of the game making tool Construct 3 and how to publish the games they've made for further use. The games will be exported in cp3 file format, where participants can use the games after the workshop as they wish. During the workshop, the topic of playable concepts and embeddable games will also be discussed together with the participants. The results of the discussion and games

shall be archived in the **Playable Concepts** project for further research purposes.

#### Preliminary Schedule

Playable (Research) Concepts Workshop	3 hours
<b>Session 1 - Introduction</b>	50 min
<ul style="list-style-type: none"> <li>• Introduction of “Playable Concepts” research</li> <li>• Introduction of workshop organizers and instructors</li> <li>• A showcase of 1-3 sample games created during “Playable Concepts”</li> </ul>	
<b>Software instruction: Construct 3 tutorial</b>	
<ul style="list-style-type: none"> <li>• 1 sample game making walk-through</li> </ul>	
<b>Break</b>	10 min
<b>Session 2 - Game Making</b>	80 min
<b>Game Design: Brainstorming</b>	
<ul style="list-style-type: none"> <li>• Game design brainstorming session and tools</li> <li>• Participants translate a topic or concept into a game design</li> </ul>	
<b>Game Development: Using Construct 3</b>	
<ul style="list-style-type: none"> <li>• Design and make a game of that research topic or concept</li> <li>• Single level, one core game mechanic, 1-5 minutes gameplay time</li> </ul>	
<b>Optional Break</b>	10 min
<b>Session 3</b>	30 min
<b>Showcase of created games</b>	
<ul style="list-style-type: none"> <li>• Participants play each other's games</li> </ul>	
<b>Discussion and Wrap-up:</b>	
<ul style="list-style-type: none"> <li>• How was it to create a game around your own research topic or concept?</li> <li>• Are the playable concept games able to convey the research topic or concept?</li> <li>• Would it be possible to implement it within your current research materials?</li> <li>• What is the potential of games as figures or embedded material?</li> <li>• What kind of concepts would they be able to illustrate?</li> </ul>	

## 6 ORGANISERS

- Annakaisa Kultima, PhD, Aalto University
- Christina Lasssheikki, MA, Aalto University
- Solip Park, MA/MET, Aalto University/  
Carnegie Mellon University

**Annakaisa Kultima** is a postdoctoral researcher at Aalto University School of Arts, Design and Architecture. She has been teaching and studying game design and development since 2006 in several universities in Finland and Sweden as well as toured as a visiting lecturer around the world including universities in US, China, Denmark, South Korea and Japan. Her research is concentrating on game development cultures, creativity, game industry trends, and game jams. Kultima's PhD dissertation "Game Design Praxiology" examined the multitude of issues of understanding 'games as created' including game jam cultures. Kultima is also an active member of the game ecosystem in Finland and internationally: she is working as a judge in several game competitions, running and participating game jams as well as curating exhibitions on games. She is also a member of the founding team of The Finnish Museum of Games and the head of non-profit organisation Finnish Game Jam advocating the game making hobby and indie cultures in Finland.

**Christina Lasssheikki** is a research assistant at the Department of Media, Aalto University School of Arts, Design and Architecture. She has an MA in Art Education and is currently studying towards an MA in Game Design and Production at Aalto University. Her first MA thesis deals with learning at game jams. Christina has run workshops on game making, gamification and game jams to various audiences. Her previous projects include educational gamification of visual communication teaching for the Aalto Drawing platform, and educational escape room and location-based game development for Aalto Online Learning.

**Solip Park** is a Research Assistant at the Playable Concepts project at Aalto University. She worked as one of the founding members of Nexon Computer Museum, South Korea – the first permanent museum in East Asia dedicated to the history of digital games and personal computers. Solip has a MET (Master of Entertainment Technology) at Carnegie Mellon University, and currently completing her MA in Nordic Visual Studies and Art Education at Aalto University.

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