Bruno Dupont
Maarten Denoo
Eva Grosemans
Steven Malliet
Rozane De Cock

Gam⊙ble

KU LEUVEN

LUCA SCHOOL OF ARTS

CONTEXTUALIZING DARK PATTERNS *WITH THE LUDEME THEORY*

A new path for media education?

1.

THE RELATIVE DARKNESS OF PATTERNS

INTRODUCTION

DARK PATTERNS

A dark game design pattern is a pattern used intentionally by a game creator to cause negative experiences for players which are against their best interests and likely to happen without their consent.

(Zagal et. al 2013)

➡ *Lootboxes, grinding, (false) impersonation,…*
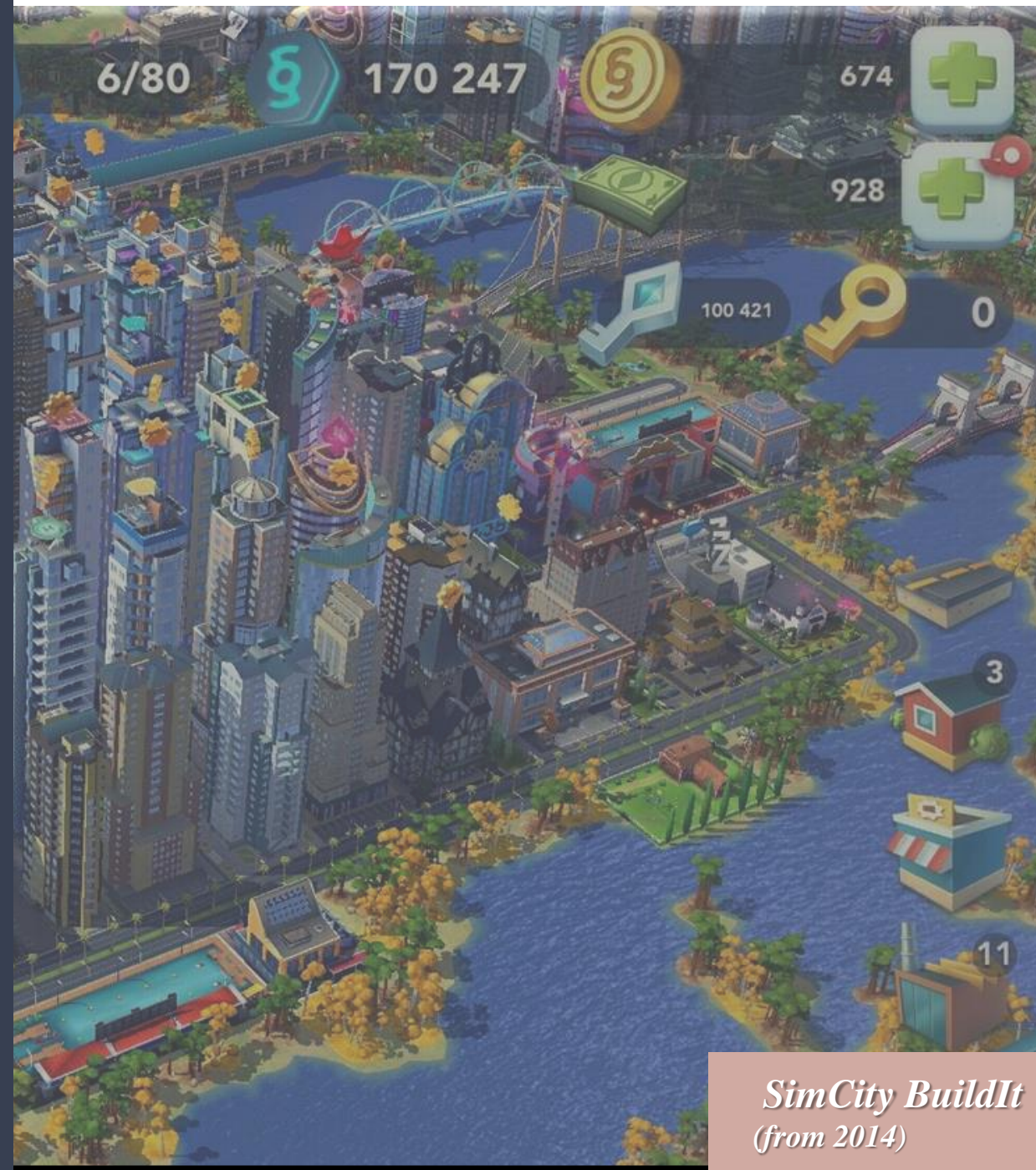
CRITICAL VOICES

Is *darkness*

➡️ **Objective**?
➡️ **Given** *in advance?*
➡️ **Applicable** *everywhere, everytime, to everyone?*

(Deterding et al. 2020 among others)

SimCity BuildIt
(from 2014)

2.

LUDEMES INSTEAD OF *PATTERNS*

CENTERING ON PLAYER EXPERIENCE

DARK PATTERNS ARE ABSTRACT

"game design patterns are semiformal interdependent descriptions of commonly reoccurring parts of the design of a game that concern gameplay" (Björk & Hopalaien 2005), without presumptions on the specific appearance of this structure in a given game.

Deadly Traps

Deadly Traps are game events that kill Avatars and Units if they are within the area of effect of the trap.

Typical examples of deadly traps include pits, falling blocks, lava, fire, acid, steam, machinery, crushing presses, fast-moving vehicles, and collapsing bridges, but many more are possible.

> **Example:** Platform games such as *Super Mario Sunshine* and *The Legend of Zelda: Wind Waker* are filled with a wide variety of *Deadly Traps*.

> **Example:** The tracks in *Super Monkey Ball* are hovering high above the ground, effectively surrounding the tracks with a *Deadly Trap*.

USING THE PATTERN   *Deadly Traps* can be divided into three categories: those that are visible and whose effects are clear, those that can be found by noticing differences from the surrounding environment of the trap, and those that cannot be noticed before they are activated. The first type, exemplified by game elements such as crushers, flame dischargers, and so on that follow a certain pattern in activation, allows the players to choose to try to bypass or deactivate the trap, typically requiring *Timing* or *Rhythm-Based Actions*. The second type, exemplified by (badly) camouflaged pits, may instantly kill the player character and thus require the player to be observant of *Outstanding Features* in the environment. The last type, exemplified by traps activated by counterweights when picking up objects, creates *Surprises* but also promotes *Memorizing* to remember the location of the trap. The last two categories do not have to instantly kill the player character, but can give the player a *Time Limit* within which to react, thus increasing *Tension*.

Deadly Traps can be used to limit the players' accessible area, either by acting as a barrier to an area or by setting the entire *Inaccessible Area* as a *Deadly Trap*, for example, a lake of acid. When accessible routes are hidden among *Deadly Traps* and players cannot distinguish between the two, they force players into making Leap of Faith actions. Shrinking Game Worlds can take the form of *Deadly Traps*, which seal off game areas, e.g., collapsing bridges or cave-ins. Less commonly, *Deadly Traps* can be used to open up game areas, e.g., a fallen rock exposes a tunnel. This can be used to enforce the *Narrative Structure* of the game and to create or open up *Inaccessible Areas*.

Deadly Traps can be used to help *Guard* goals and can make it possible to achieve *Eliminate* goals without directly attacking opponents.

CONSEQUENCES   *Deadly Traps* introduce *Consumer* game elements into the *Game World* that threaten players with *Penalties* of *Damage* or loss of *Lives* or *Units* if the players activate them. Common objects of *Evade* goals, *Deadly Traps* give players restricted *Movement* within their immediate surrounding and can force players into *Maneuvering*. *Deadly Traps* are typically *Ultra-Powerful Events*.

Depending on whether the trap is known to the player, *Deadly Traps* can cause *Tension* or *Surprises*, especially in *Exploration* or *Reconnaissance* goals. *Deadly Traps* can also be used to limit the *Game World* in an intuitive way. *Deadly Traps* are examples of *Ultra-Powerful Events* when they are impossible to *Evade* by the players who have activated them.

Safe Havens cannot be combined with *Deadly Traps*, since the presence of the trap would make the location unsafe.

RELATIONS

Instantiates: *Timing, Rhythm-Based Actions, Time Limits, Surprises, Movement Limitations, Tension, Leaps of Faith, Memorizing, Ultra-Powerful Events, Damage*

Modulates: *Rescue, Evade, Exploration, Reconnaissance, Inaccessible Areas, Lives, Units, Maneuvering, Game World, Movement, Eliminate, Guard*

Instantiated by: *Shrinking Game World*

Modulated by: *Damage, Outstanding Features, Penalties, Consumers*

Potentially Conflicting with: *Safe Havens*

"PUSHABLE BLOCKS" IN THE *ZELDA* SERIES

Hurel 2018; 2020

THREE PARTS OF A *LUDEME*

"basic video game unit"
"being and doing, formalization and use, game and player
videoludic equivalent of Saussure's morpheme
constitued of

LUDEME →

- **picture = "grapheme**
- **sound = acousteme**
- **mechanical properties or mechanemes"**
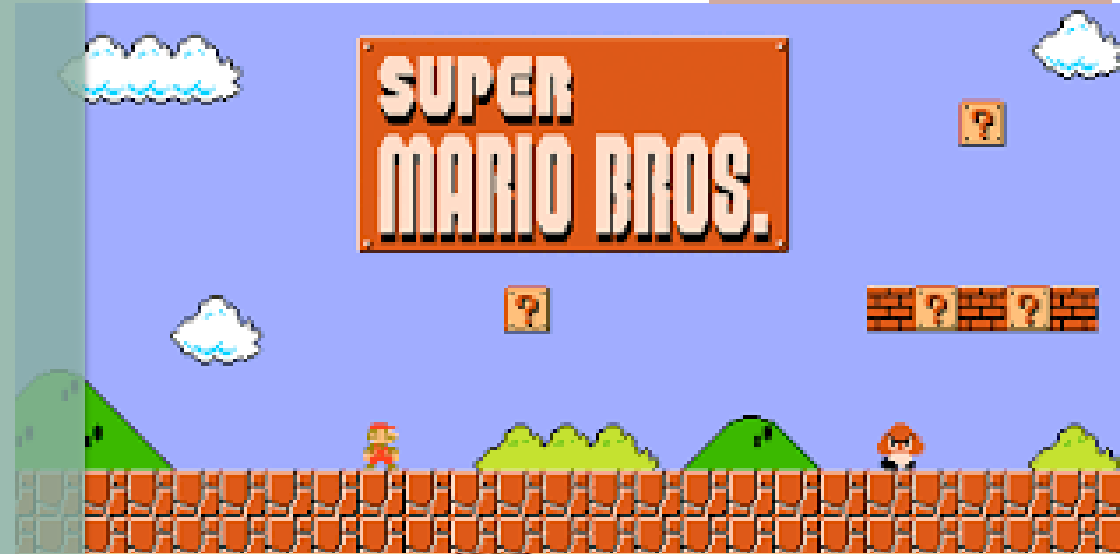
(Hansen 2019)

3.

A LEXIC OF LUDEMES

VARIATION AND EVOLUTION ACROSS VIDEO GAMES

RECALLING LUDEMES FROM THE LEXIC

LEXIC →

private mental ludemes collection
enables rapid action
borrowed and cited
rely on experience

REMAKES ARE TRENDY

Crazy Taxi (smartphone remake, 2017)

Contemporary game industry
      smartphone games
      remakes and modernizations

⬇

      nostalgia factor
      video game culture

The Sims Mobile, 2018

4.

EXPLOITING VIDEO GAME LEXIC

A FEW EXAMPLES FROM *SIMCITY BUILDIT*
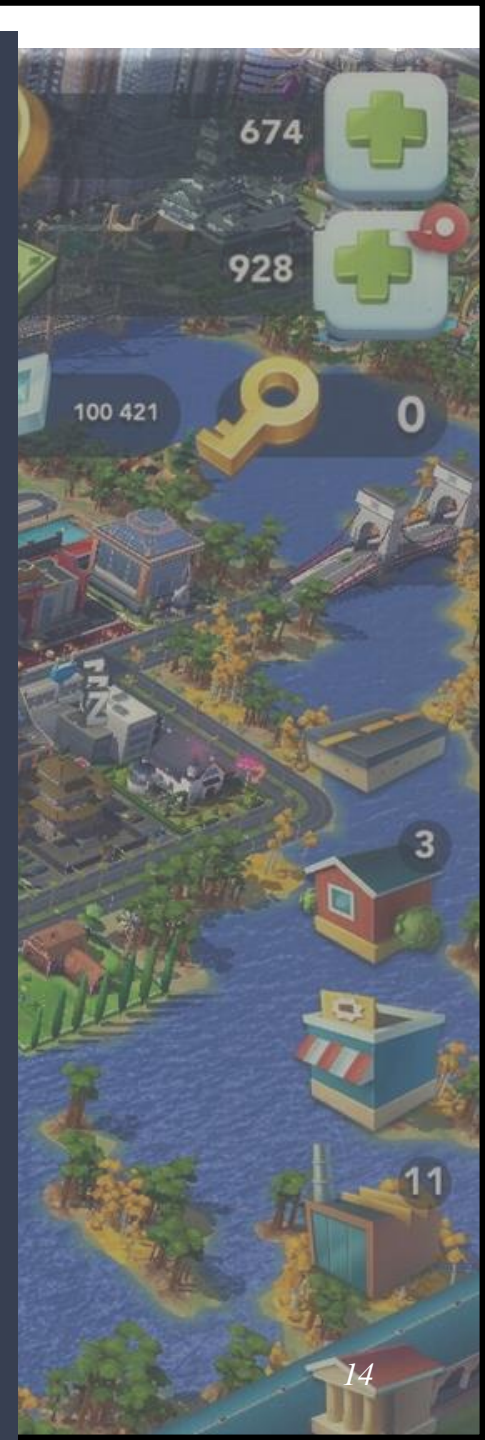
Boutique de matériaux

933

3

100%

10/30

0   0   6

26min. 15s.

11   4

SIMCITY BUILDIT, PAY TO SKIP?

SimCity BuildIt, 2018

SimCity 3000, 1999

Expenditures   Income

Adjust: Yr. To Date   Year End
December 1908   Expense   Estimate

Ordinances

Neighbor Deals

Loans

Education

Public Health

Fire

2711

30
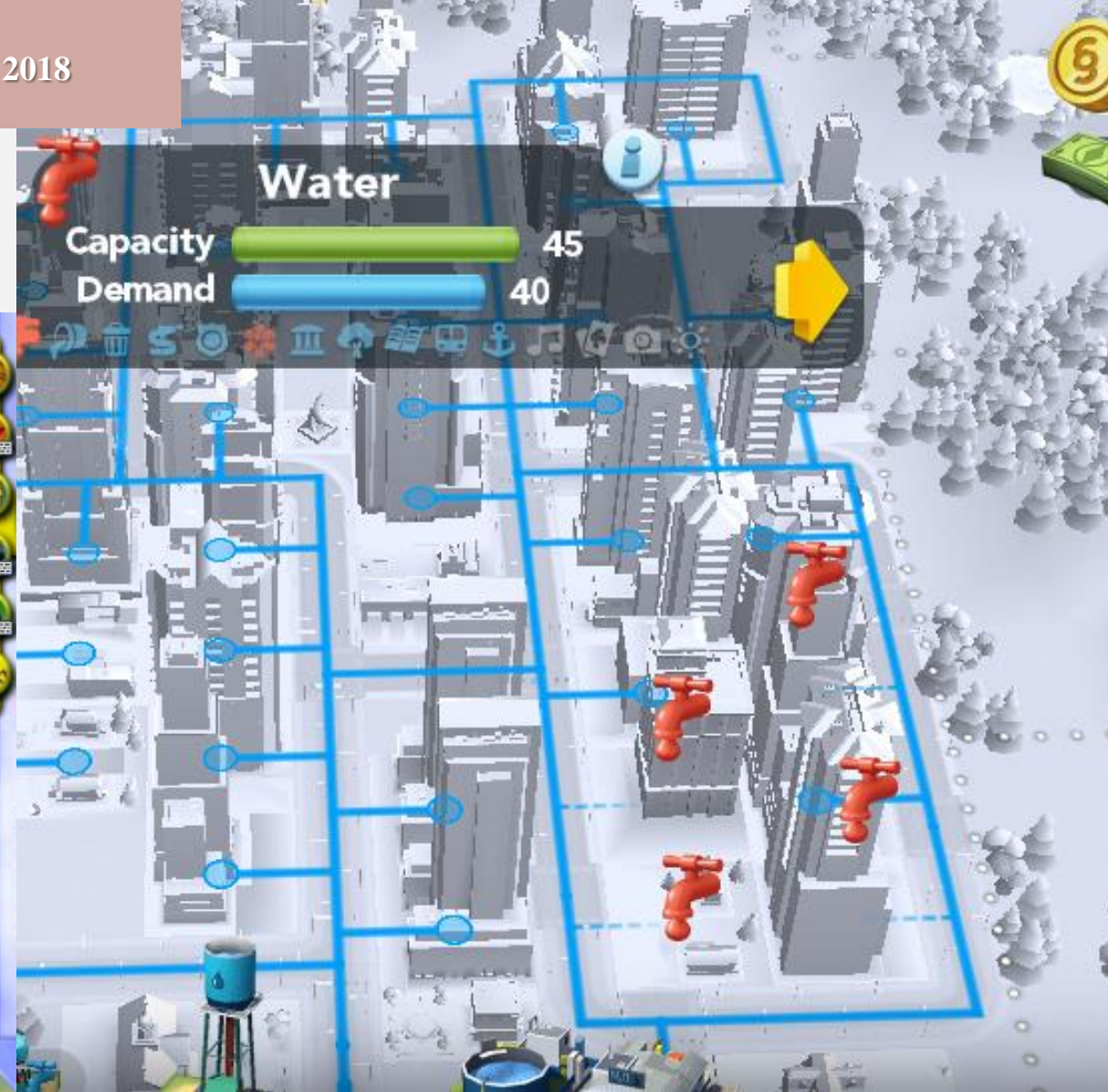
Simoleon-ludeme ➡ coin + tinkle + in-game expenses
SimCash-ludeme ➡ banknote + tinkle + real expenses

5.

WHAT LUDEMES CAN AND CANNOT DO FOR MEDIA EDUCATION

QUESTIONS TO PONDER

MEDIA LITERACY

Diverse literacy levels among the players
  Awareness of game design
  Willingness to expose oneself to game sequences

Player agency
  Value prior experiences as tools for analyzing new games

Reinforcing ludeme theory
Empirically test learning from ludemes

THANK YOU

✉ *Bruno.dupont@kuleuven.be*

BIBLIOGRAPHY

Björk, S., & Holopaien, J. (2005). *Patterns in game design*. Charles River.

darkpatterns.game

Deterding, C.S. (2020), Stenros, J., & Montola, M. (Accepted: 2020) Against "Dark Game Design Patterns". *Abstract Proceedings of the 2020 DiGRA International Conference*, Finland (cancelled).

Hansen, D. (2019). *Morphologie du médium vidéoludique : Le ludème envisagé comme unité minimale fonctionnelle du jeu vidéo*. (Unpublished master's thesis). University of Liège.

Holopaien, J. (2011). *Foundations of gameplay*. (Unpublished doctoral thesis). Blekinge Institute of Technology.

Hurel, P.-Y. (2020). *L'expérience de création de jeux vidéo en amateur - Travailler son goût pour l'incertitude*. (Unpublished master's thesis). University of Liège.

Lewis, C. (2014). *Irresistible Apps: Motivational Design Patterns for Apps, Games, and Web-based Communities*. Apress.

Zagal, J. P., Björk, S., & Lewis, C. (2013, 16 May). Dark patterns in the design of games. Paper presentation at Foundations of Digital Games, Chania, Greece.