

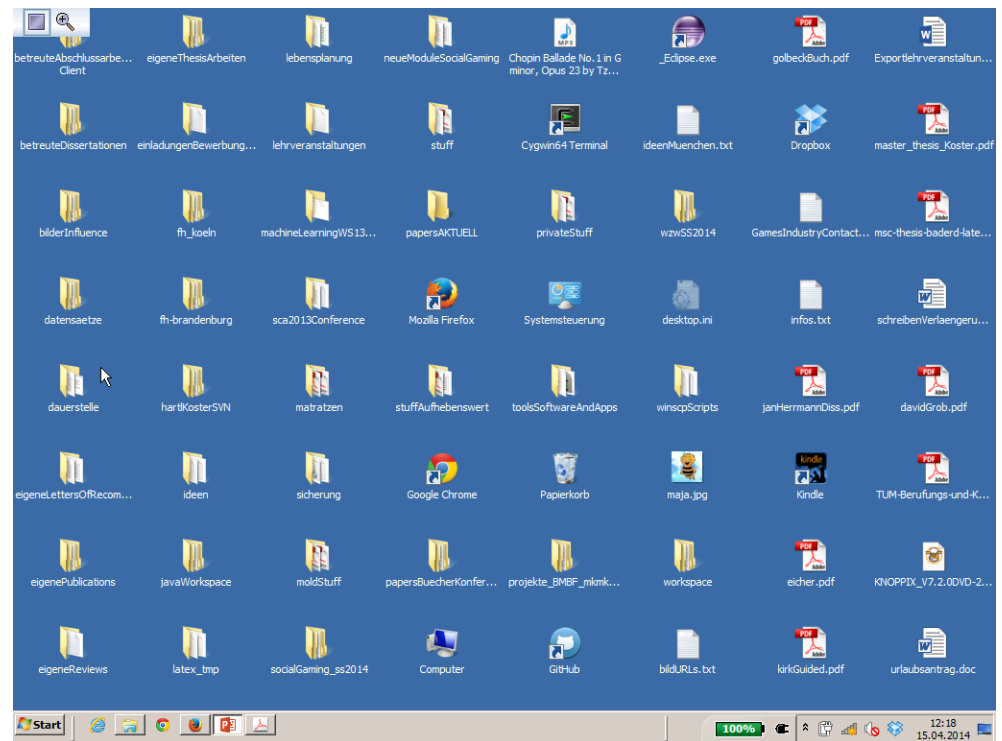
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## Concepts and Definitions for „Play“ and „Games“

Dutch cultural historian Johan **Huizinga** [Huizinga, 1939; in (1)] :

(higher form of) **play** is:

1. *“a **free** activity*
2. *standing quite consciously **outside “ordinary” life** as being **“not serious”**, but at the same time absorbing the player intensely and utterly*
3. *is an activity connected with **no material interest**, and **no profit** can be gained by it.*
4. *proceeds within its own proper **boundaries of time and space***
5. *according to **fixed rules** and in an orderly manner.*
6. *promotes the **formation of social groupings** which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.”*

## Concepts and Definitions for „Play“ and „Games“

Writer and philosopher Roger **Caillois** [Caillois, 1961; in (1)] :

**play is activity** characterized as:

1. **free** as in a voluntary activity,
2. **separate** in time and space and defined in advance,
3. **uncertain** in course and results beforehand,
4. **unproductive** in a materialistic way,
5. **governed by rules** just applicable to the play, and
6. **make-believe** of a second reality or free unreality.

## Concepts and Definitions for „Play“ and „Games“

Ludologist Brian **Sutton-Smith** [Sutton Smith , 1997; in (1)]:

1. **Play as progress:** covers **children's play** or the play of animals, explicitly **excludes play of adults**, understood primarily as **development and not entertainment**.
2. **Play as fate:** usually applied for all types of **gambling games** and other games of pure chance.
3. **Play as power:** representation of a **conflict** as in sports, athletics or contests in general.
4. **Play as identity:** traditional and community celebrations such as festivals or rituals: means to confirm, maintain or advance the **power and identity of communities of participating players**.



## Concepts and Definitions for „Play“ and „Games“

### • „Play“ vs. „Game“



- **Social aspects** in aforementioned general classification frameworks often **implicitly contained**:
  - formation of social groupings (Huizinga)
  - community identity (Sutton-Smith)
  - ....



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## Cncpts. and Defs: Vrtl. Play & Dig. Games: Academic Prspctv.

### „play“ ↔ „game“:

- [Salen and Zimmerman, 2004; in (1)]: **definition of game**:
  - A game is a **system**
  - in which **players engage** in
  - an **artificial**
  - **conflict**,
  - defined by **rules**,
  - that results in a **quantifiable outcome**.

- **Hunicke** [Hunicke et al, 2004 in (1)]: games: *“systems that **build behavior via interaction**”*

- **Dormans** [Dormans, 2012; in (1)]: **game play**: *“**emergent property** of the game as defined by its rules”*

[Salen and Zimmerman, 2004; in (1)]:

**digital games** (games involving computers) **as systems:**

- as **emergent** systems
- as systems of **uncertainty**
- as **information theory** systems
- as systems of **information** (imperfect, perfect); information economy of a digital game: value created by information through its relationship to other pieces of information.
- as **cybernetic** systems: (input → state → output; feedback-loop; “agent”)
- as **game theory** systems
- as systems of **conflict**



**Social aspects** of digital games:

- [Salen and Zimmerman, 2004; in (1)]: “When games are framed as **Social Play** the relationships between elements in the game system are considered to be **social relationships**”
- [Salen and Zimmerman, 2004; in (1)]: “games are **emergent social systems** in which simple play behaviors and social interactions can result in **incredibly complicated experiences of play**”
- [Salen and Zimmerman, 2004; in (1)]: “In **transformative social play** players **extend, transform, and manipulate existing social relationships** through play itself”



Ludologist  
Jasper Juul:  
**Game vs. Non-Game**



Figure 3.2: Juul's Classic Game Model. Source: [Juul, 2005 in (1)]



**Salen and Zimmerman** [Salen and Zimmerman, 2004 in (1)]:

○ general **characteristics** of game **rules**:

- Rules **limit** player actions
- Rules are **explicit** and unambiguous
- Rules are **shared** by all players
- Rules are **fixed**
- Rules are **binding**
- Rules are **repeatable**

○ **three types** of rules:

- **Constitutive** Rules: core logic; in code; handle internal events
- **Operational** Rules: external events (e.g. user i/o: audio, video)
- **Implicit** Rules: also depend on external context (e.g. platform)



## Components: Game Researcher's Perspective

Juul [Juul, 2005 in (1)]: **rules: chain of dependencies:**

- „rules specify limitations and affordances“
- rules **map**: player's actions A → game states S : state machine
- state machine: **graph** or **tree**: ‚game tree‘, ‚game graph‘
- **utility** function on states → player **challenges** → **skills**
- → **enjoyable experience**



## Components: Game Researcher's Perspective

Järvinen [Järvinen, 2007 in (1)]: **nine game elements:**

- **Systemic** elements:
  - **components**: resources for play
  - **environment**: space for play
- **Compound** elements:
  - **ruleset** (including utility function, goal-set)
  - game **mechanics**: player's action patterns toward goals
  - **theme**: subject matter of game
  - **interface**: e.g. UI
  - **information**: players need to know, coupled with game states
- **Behavioral** elements:
  - **players**
  - ‚outside‘ **contexts**: e.g. spatiotemporal environment of game-playing



## Components: Game Researcher's Perspective

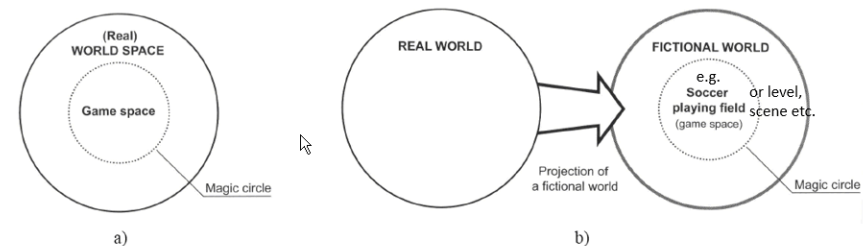
● [Hunicke et al, 2004 in (1)]: **MDA** framework (**Mechanics, Dynamics, Aesthetics**):

- **Mechanics** “are the various actions, behaviors and control mechanisms afforded to the player within a game context. Together with the game's content (levels, assets, and so on) the mechanics support overall gameplay dynamics.”
- **Dynamics** “run-time behavior of the mechanics acting on player inputs and each others' outputs over time.”
- **Aesthetics** facilitate “the desirable emotional responses evoked in the play, when she [the player] interacts with the game system.”



## Components: Game Designer's Persp.: Game Worlds

- Important component: **game spaces** (e.g. Pacman maze, stages, levels, places in WOW, Second Life etc.) (= “virtual worlds”, “game worlds”)
- **blurring of boundaries** (→ **magic circle**): real ↔ imaginary world: negotiated by players, determined by context → adds **social dimension**

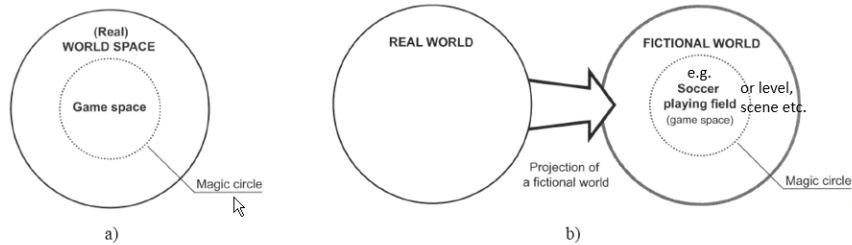


Juul's Magic Circle (a) in the Real World and (b) in Fictional Worlds. Source: [Juul, 2005; in (1)]



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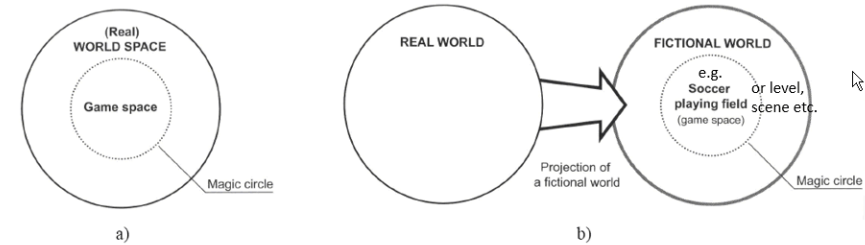


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## Meta-Types of Digital Games

- **Meta-types** of games (that involve social interaction of some sort):

- **Simulation**
- **Social games**
- **Online games**
- **Mobile games**
  - **Location-based games**



- these are
  - **overlapping**
  - **probably not complete**



## Meta-Types of Digital Games

### Simulation

- **generally**: "to simulate is to model a (source) system" (possibly non-real) "through a different system which maintains to somebody some of the behaviors of the original system" [Frasca, 2003b; in (1)].
- closely related to **game mechanics, game physics**

### Social Games

- requires **social interaction** (cooperative vs. competitive)
- social interaction: **inside / outside of game**
- generates / uses **social context**



## Meta-Types of Digital Games

### Online Games

- require connectivity
- e.g. Web-based (browser) games

### Mobile Games

- mobility → more, more interesting, more real-world **contexts**
- games that **incorporate context**, measured via sensors (e.g. in a smartphone) in a mobile scenario
- **forms of context** (overlapping): spatio-temporal, social, physical, medical, personal etc.
- games making use of **spatial context**: **location-based games**
- **important**: distinguish:  
**truly mobile == use mobile context ≠ only accessed via mobile UI**



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## Types of Digital Games: Hardcore Games

### Hardcore Games

- **meta types**: simulation (primarily), on-line, social
- intensive player **immersion**
- **sub-types**:
  - (ego-shooters), MMO ego-shooters,
  - MMOGs, MMORPGs, MUDs... (see [Klastrup, 2003, p. 57-91; in (1)])
  - (vintage classic games)
  - ...
- **often**:
  - realistic physics,
  - high end (often 3D) graphics,
  - detailed game worlds
  - ....



## Types of Digital Games: Casual Games

### Casual Games

- Juul [Juul, 2010; in (1)]: **characteristics:**
  - **Instant play**, easy to learn
  - **Quick play**, do not require much time to play to get pleasure
  - **Common play**, address a vast majority of player types
- **meta-types:** online (primary), social (primary), mobile
- **constant development** e.g. via user feedback possible and good practice



## Types of Digital Games: Casual Games

### Casual Games: varieties:

- **browser games**
  - Web applications
  - example: games by Zynga
- **social network games:**
  - played on social networking platforms
  - example: Farmville
- **downloadable casual games:**
  - specific distribution channel, often assoc. with brands
  - example: Moorhuhn
- **mimetic games:**
  - “exergames”, take game-play out of virtual game space to the player’s ‘real world’ space, mostly via ‘physical’ UIs
  - examples: Wii Sports, Guitar Hero, Kinect games



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## Types of Digital Games: Pervasive Games

### Pervasive Games

- [Kampmann Walther, 2005; in (1)]: „[...] *augmented and/or embedded game worlds [...] on the threshold between tangible and immaterial space*”
- [Kampmann Walther, 2005; in (1)]: „may further include adaptronics, wearable, mobile, or embedded software/hardware in order to facilitate a ‘**natural**’ environment for gameplay that ensures the explicitness of computational procedures in a post-screen setting
- related: **pervasive + ubiquitous computing**
- **meta-types:** mobile + location-based (primary), social (secondary)





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## Types of Digital Games: Pervasive Games

### Pervasive Games: sub-types: [Magerkurth et al, 2005; in (1)]:

- **Smart toys**:  
e.g. Tamagotchi-like toys, Ravensburger tiptoi
- **Affective gaming**:  
integrate a player’s emotional state, measured via sensors
- **Augmented tabletop games**:  
e.g. via tangible pawns
- **Location-aware games**:  
e.g. Geocaching
- **Augmented reality games**:  
e.g. via head-mounted displays, projected images on real-world surfaces, or hand-held devices.
- general (pervasive) trend: Gamification



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## Types of Digital Games: Serious Games & GWAPs

### Serious Games

- **games with ,useful’ side effects** for users: [Susi et al., 2007; in (1)]:
  - **education**: e-learning, edutainment, game-based learning, digital game-based learning (related, overlapping)
  - **training**: : e.g. military or financial simulations
  - **information**: political games, corporate games, and healthcare games (inform, create awareness)
- **„Games with a Purpose” (GWAP)**:
  - side-effects not immediately useful for users
  - closely related but **not** necessarily with game orientation: „human-based computation“, „crowdsourcing“
  - **examples**: Artigo (soft ontology / folksonomy generation), Captcha-solving
- **meta types**: social, simulation

