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Social Gaming / Social Computing SS 2015

PD Dr. Georg Groh

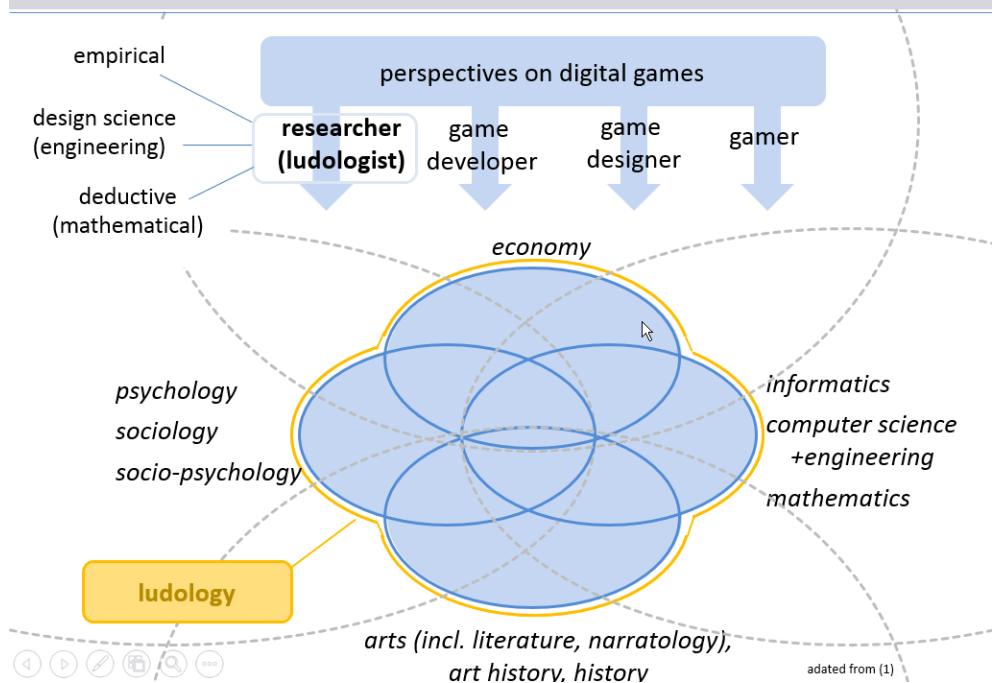


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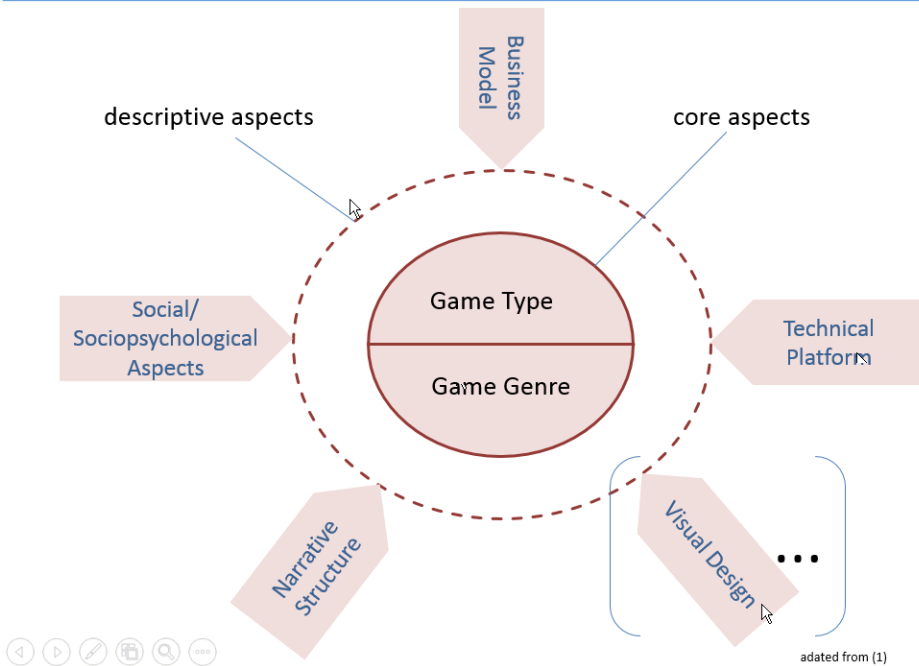
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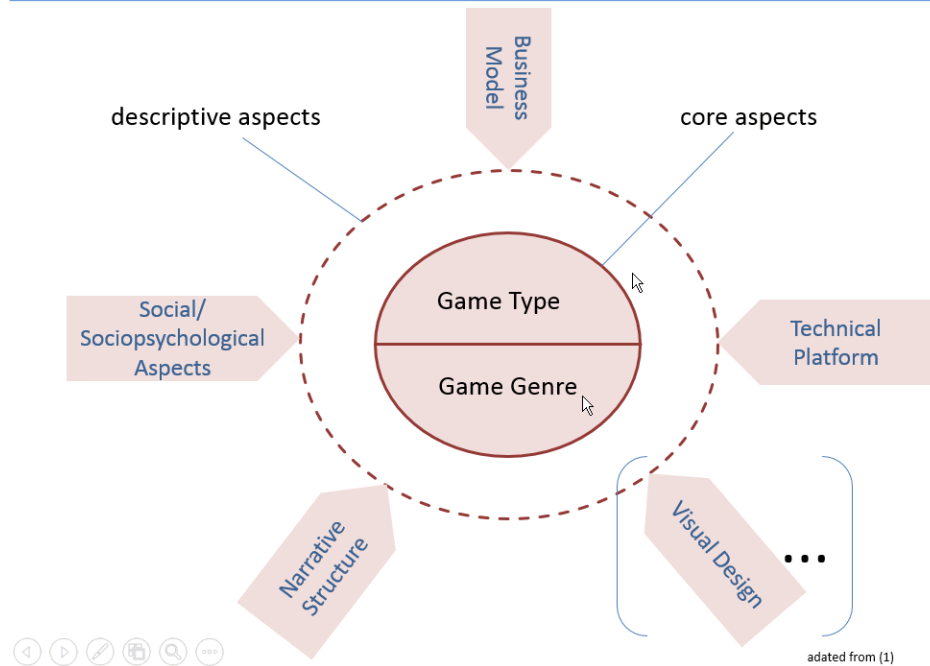
Perspectives on Digital Games



Classification Framework for Digital Games



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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."

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	AGÓN (Competition)	ALEA (Chance)	MIMICRY (Simulation)	ILINX (Vertigo) <small>also: German: Rausch, Engl: flush</small>
<p>"primary power of improvisation and joy"</p> <p>PAIDIA</p> <p>Tumult Agitation Immoderate laughter</p>	<p>Racing Wrestling Etc. } not regulated</p> <p>Athletics</p>	<p>Counting-out rhymes Heads or tails</p>	<p>Children's initiations Games of illusion Tag, Arms Masks, Disguises</p>	<p>Children "whirling" Horseback riding Swinging Waltzing</p>
<p>Kite-flying Solitaire Patience Crossword puzzles</p> <p>LUDUS</p> <p>"having taste of gratuitous difficulty"</p>	<p>Boxing, Billiards Fencing, Checkers Football, Chess</p> <p>Contests, Sports in general</p>	<p>Betting Roulette</p> <p>Simple, complex, and continuing lotteries*</p>	<p>Theater Spectacles in general</p>	<p>Volador Traveling carnivals Skiing Mountain climbing Tightrope walking</p>



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playing a game as the "voluntary effort to overcome unnecessary obstacles" [Suits, 1978, in (1)]:

1. attempt to achieve a specific **state of affairs** [**prelusory goal**],
2. using only means permitted by **rules** [**lusory means**],
3. where the rules prohibit use of more **efficient** in favor of less efficient means [**constitutive rules**], and
4. where the rules are **accepted** just because they make possible such activity [**lusory attitude**].

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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**.



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● „Play“ vs. „Game“



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



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

5. **Play as the imaginary:** applied to the **playful improvisation in a play world**; idealizes imagination, creativity and flexibility.
6. **Of the self:** individually desired **experiences** by the player, i.e. fun, relaxation, escape with an intrinsic satisfaction.
7. **Play as frivolous:** usually applied to the activities of the idle or the foolish, such as in 'playing around' ; can be understood as an invert to the classical 'work ethic'.



„play“ ↔ „game“:

- [Salen and Zimmerman, 2004; in (1)]: **3 categories of „play“**
 - **being playful**
(incl. playful state of mind → cp. Suits' lusory attitude; Sutton-Smith: informal social play, solitary play, or playful behaviors)
 - **ludic activities**
(incl. all non game behaviors of „playing“; cp. loosely Caillois' mimicry, andilinx)
 - **Game play:**
formalized interaction when players follow the rules of a game and experience its system through play.



„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:
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[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”)
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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)]



Frasca [Frasca, 2007; in(1)]: **properties of games**

- **social** („by default social endeavours“) („single gaming: always framed through social concepts“)
- games are **play activities** and **objects**
- **games have rules**
- player performance is **measured** and **valued** correlating to a certain **social status**
- players **believe** to **actively participate** in games (←→Juul's required 'player effort') (cp. games of pure luck).
- game consequences are **not optional**
- „Any activity can be a game but not every activity is a game“



● **Juul** [Juul 2010; in (1)]:

- **hardcore** player
- **casual** player

● **Salen and Zimmerman** [Salen and Zimmerman, 2004 in (1)]: different **lusory attitudes**:

- **Standard** Player: follows rules
- **Dedicated** Player: follows rules but unusual strategies
- **Unsportsmanlike** Player: follows rules but violates spirit of lusory attitude
- **Cheating** Player: violates rules to win
- **Spoil-Sport** Player: violates rules, doesn't care at all



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)



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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



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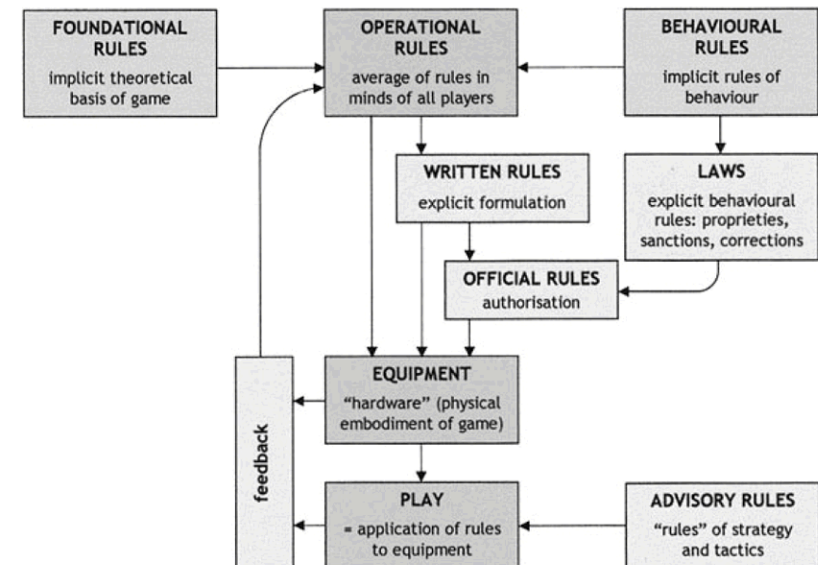
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Components: Game Designer's Perspective: Rules



Parlett's Typology of Rules. Source: [Parlett, 2005; in (1)]

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.”



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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



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Järvinen [Järvinen, 2008 in (1)]:

- **social interaction** of players:
 - **inside game:** social context accessible
 - **outside („off-“)game:** social context inaccessible
- **game mechanics:** „A game mechanic makes a particular set of rules available to the player in the form of prescribed *casual relations between game elements and their consequence to particular game state(s)*“



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- **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



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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**



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



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
 -



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



Casual Games

- Juul [Juul, 2010; in (1)]: **five design principles:**
 - **Fiction:** almost all: *“fictions with positive valence”*.
 - **Usability:** are easy to use, friendly interfaces, *“presuppose little knowledge of game conventions”*
 - **Interruptibility:** allow players to *“play in short bursts”*
 - **Difficulty and punishment:** *“often become very difficult during the playing of a game”* but typically only have *“lenient punishments for failing”*.
 - **Juiciness:** *“excessive positive feedback for every successful action”*



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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

Pervasive Games

- [Montola et al, 2009; in (1)]: „game that has one or more salient **features that expand the contractual magic circle of play** spatially, temporally, or socially” ↔ cyberphysical systems
- [Montola et al., 2009, in (1)]. **other terms:**
“adaptronic games, alternate reality games, ambient games, appropriative games, augmented reality games, big games, brink games, context aware games, crossmedia games, geogames, hybrid games, immersive games, invasive games, location-based games, locative games, massive games, mixed reality games, mobile games, pervasive games, reality games, supergames, total games, transreality games etc.”

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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.
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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

