Title: Groh: socialGaming (30.04.2013)

Date: Tue Apr 30 12:00:47 CEST 2013

Duration: 86:26 min

Pages: 43

Genres of Digital Games

Types of Digital Games

	Hardcore	Casual	Pervasive	Serious
Simulation				
On-line				
Social				
Mobile				
Location-based				

adapted from (1)

Genres of Digital Games

Genres of Digital Games

- extensive review of genres: [Järvinen, 2008; in (1)]: „*ludological genre frameworks*"

- genre ↔ intended game play

- Caillois: {*ludus, paida*} × {*agôn, alea, mimicry, ilinx*}: not ideal for digital games

- [Crawford, 1984]: {*skill-and-action games, strategy games*}

- more modern: [Rollings and Adams, 2003; in(1)], [Bates, 2004 ; in(1)] and [Novak, 2012 ; in(1)]:
  - {*action games,*
  - *adventure games,*
  - *strategy games,*
  - *simulations,*
  - *role-playing games,*
  - *puzzles*}

Genres of Digital Games

critique:

- not "timeless", formal criteria missing

- tree-based classifications (taxonomies): too rigid (e.g. in terms of mixed genres), graph based (with more relations than subsumption (is-a) or meronymy) required

- mostly driven from existing games (extensional), not intensional

Genres of Digital Games

- **better:** genre classifications based on **game mechanics**: "*genre is defined by a shared collection of core mechanisms*" [Costikyan, 2005; in (1)];
  - genres by game mechanics: similar to ludological genre frameworks;
  - genres == sets of game mechanics
  - additive: new mechanics can be added w.o. changing older parts
  - new genres easy: new combinations / sets

- genre: derived from single **pioneer** game and its mechanics and following similar games [Costikyan, 2005; in (1)]

Genres of Digital Games

[Järvinen, 2008; in (1)]: **Rapid analysis method (RAM):** 40 types of **game mechanics**:

„accelerating / decelerating, aiming & shooting, allocating, arranging, attacking / defending, bidding, browsing, building, buying / selling, catching, choosing, composing, conquering, contracting, controlling, conversing, discarding, enclosing, expressing, herding, information-seeking, jumping, maneuvering, motion, moving, operating, performing, placing, point-to-point movement, powering, sequencing, sprinting / slowing, story-telling, submitting, substituting, taking, trading, transforming, up-grading / down-grading, voting"
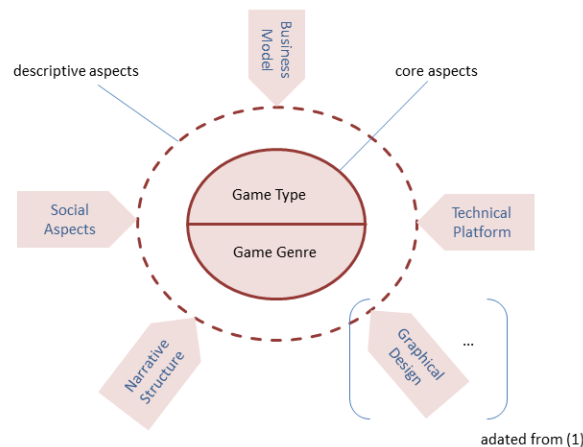
Genres of Digital Games

examples:

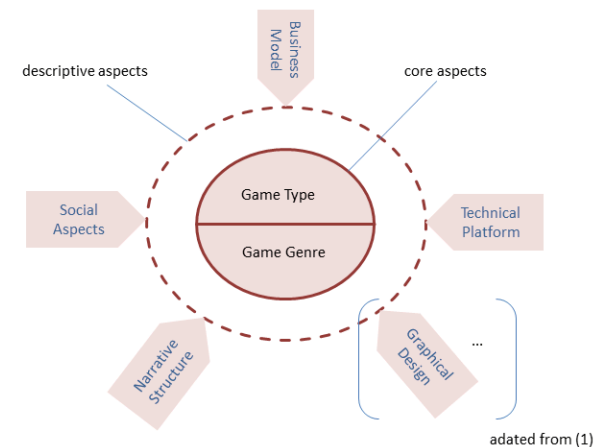"Command and Conquer" (1995) , „StarCraft II" 2010:
classic real-time strategy games:

attacking / defending, building (a combination of placing and arranging), conquering, information-seeking, operating, point-to-point movement

---

Summary

- *"A **game** is to somebody an engaging activity in which players believe to have active participation and where they agree on a system of rules that assigns social status to their quantified performance. The activity constrains players' immediate future to a set of probable scenarios, all of which they are willing to tolerate"* [Frasca, 2007; in (1)]

- four **types** of games: {**hardcore, casual, pervasive, serious**},
  - described as vectors $\in [0,1]^4$ of **meta-types**
    {**simulation, on-line, social, mobile, location-based**}

- **genres** of games: either described via
  - ludological genre frameworks or
  - as subsets of a large number of / a taxonomy of game-mechanics
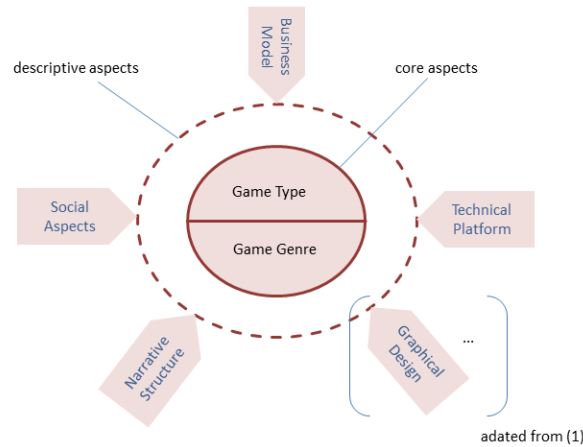

Narrative Structures

- we had: **core** of classification framework: type × genre

- Juul stresses: {*Games of Emergence, Games of Progression*} ↔ **narrative structure** → narrative structure is our **first descriptive aspect** of games

adated from (1)

- we had: **core** of classification framework: type × genre

- Juul stresses: {*Games of Emergence, Games of Progression*} ⟷ **narrative structure** → narrative structure is our **first descriptive aspect** of games

descriptive aspects   core aspects

Business Model

Social Aspects

Game Type

Game Genre

Technical Platform

Narrative Structure

Graphical Design

...

adated from (1)

---

narrative structure: more fine grained classification:

○ **classic Games of Emergence**:
example: Tetris

○ **Games of Emergence with sequential play**:
- **open-ended** games: CastleVille (2011): temporary goals, storylets; SimCity (1989): players create their own temporary goals and storylets.
- Some games frame emergent play with story at start and end of game: give different levels narrative frame: example: Angry Birds (2011)

○ **Games of Progression with emergent play**:
examples: Grand Theft Auto (2001-2012): open game world, sequential list of challenges

○ **classic Games of Progression**:
example: Far Cry (2010)

Perspective Domains of Digital Games
→ Descriptive Aspects:
Socio-Psychological Domain

Perspective Domains of Digital Games
→ Descriptive Aspects:
Socio-Psychological Domain

Socio-Psychological Domain

- *"You can learn more about a person in an hour of play than in a year of conversation"* [Plato].

- *"In our play we reveal what kind of people we are"* [Ovid].

- *"The opposite of play isn't work - it's depression"* [Sutton-Smith, 1997; in (1)]

- *"positive emotions we get from games are already spilling over into real."* [McGonigal, 2011a; in (1)] → societal challenges of the 21st century

- numerous researchers (see (1)): playing addresses emotions (mostly positive ones) directly: fun, eustress, frustration.

- also: games support motivation & flow experiences

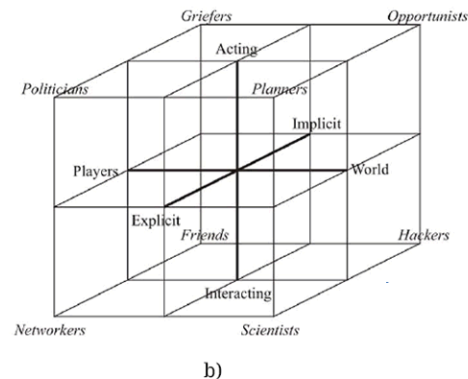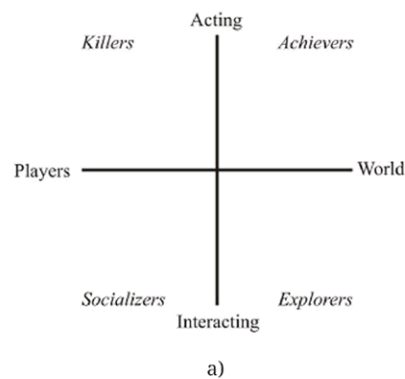## Socio-Psychological Domain: Players

player **representations**:

- ○ **Character** (alternative / extension of personality)
- ○ **Avatar** (direct representation, construct of the player)
- ○ **Persona**

Socio-Psychological Domain: Players

- [Bartle, 1996; in (1)] [Bartle, 2009; in (1)]: player types: (socio-psy. view):

Bartle's Player Types: (a) Original Player Interests Graph and (b) 3D Player Types Graph. Source: [Bartle, 2009; in (1)]

Socio-Psychological Domain: Players

- most players develop into socializers over time (Radoff, 2011; in (1))

- [Yee, 2006 (various); in (1)]: statistics based: **three motivational components** for MMOG player type definition:

  - ○ **Achievement**: desire for advancement, mastery of game mechanics, love of competition

  - ○ **Social**: socializing, building relationship, teamwork.

  - ○ **Immersion**: urge for discovery, love of role-playing, need for customization, motive of escapism.

- most players develop into socializers over time (Radoff, 2011; in (1)]

- [Yee, 2006 (various); in (1)]: statistics based: **three motivational components** for MMOG player type definition:

  - **Achievement**: desire for advancement, mastery of game mechanics, love of competition

  - **Social**: socializing, building relationship, teamwork.

  - **Immersion**: urge for discovery, love of role-playing, need for customization, motive of escapism.

Motivation

- **intrinsic** (pleasure in means/ activity itself) vs. **extrinsic** (goal ↔ utility)

- [Maslov, 1943 in (1)]→[Schell, 2010 in (1)]: most achievements of games:
  - Self Esteem level
  - Belonging Love level (social games)

Maslov's basic need hierarchy [Maslov, 1943; in (1)]

Motivation: types

- [Reiss, 2004; in (1)]: 16 motives:
  power, curiosity, independence, status, social contact, vengeance, honor, idealism, physical exercise, romance, family, order, eating, acceptance, tranquility, saving

- [Radoff, 2011; in (1)]: social → more powerful motivators: acceptance or status

↔ intrinsic motivation

↔ extrinsic motivation

Radoff's Player Motivations. [Radoff, 2011; in (1)]

- [Bartle, 1996; in (1)] [Bartle, 2009; in (1)]: player types: (socio-psy. view):

Bartle's Player Types: (a) Original Player Interests Graph and (b) 3D Player Types Graph. Source: [Bartle, 2009; in (1)]

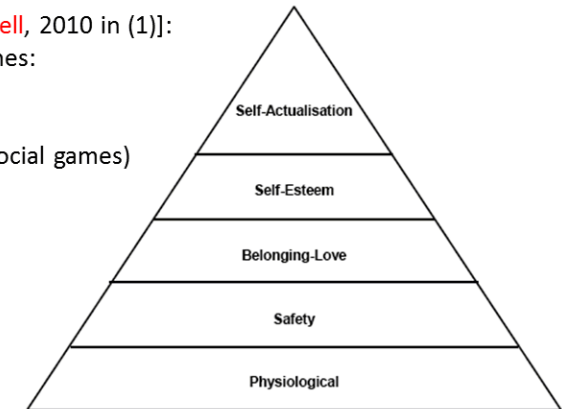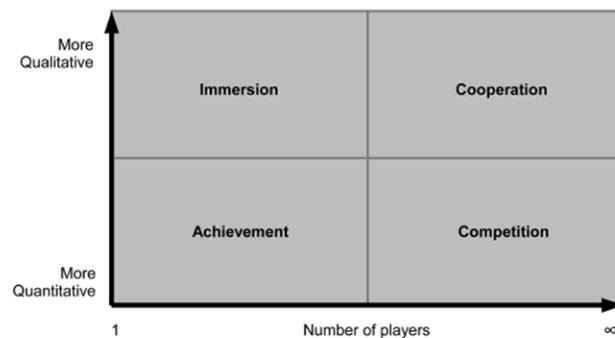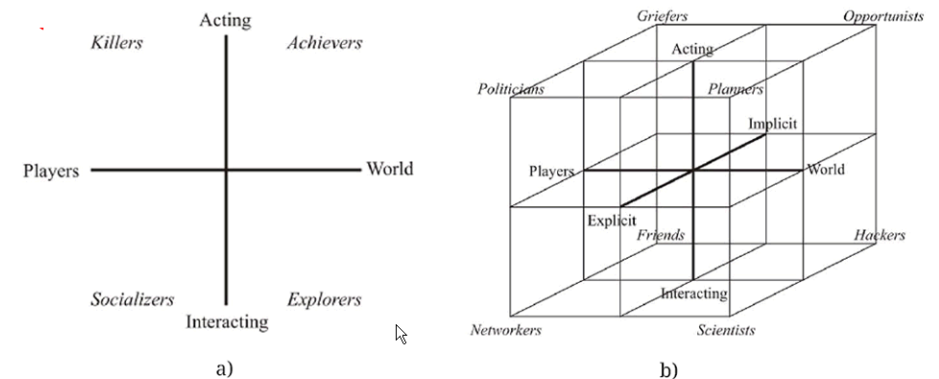## Socio-Psychological Domain: Motivation

Motivation: rewards

- also important **rewards**: [Wang & Sun, 2011; in (1)]: *"provide social meaning within and outside of games"*

- **forms of rewards***:*
  - *"score systems,*
  - *experience point reward systems,*
  - *item granting system rewards,*
  - *resources, achievement systems,*
  - *feedback messages,*
  - *plot animations and pictures,*
  - *unlocking mechanisms*."

Socio-Psychological Domain: Motivation

Motivation: rewards

- four **characteristics** of reward: [Wang and Sun, 2011; in (1)]]
  - **social value**,
  - **effect** on game-play,
  - **suitability** for **collection** and **review**,
  - **time required** to earn and/or receive the reward

- **utilization** of rewards: [Wang and Sun, 2011; in (1)]]
  - **Advancement**, (game progress)
  - **Review**, (sense of accomplishment)
  - **Sociality**, (interaction)
  - **Cooperate / Compete**, (share, hoard)

Socio-Psychological Domain: Emotions

Emotions

- ↔ Affective Computing [Picard, 1995; in (1)], Social Signal Processing [Vinciarelli 2011], Emotion Synthesis (Robotics)

- **Ekman's six key emotions** [Ekman, 1972; in(1)]:
  frustration (anger), fear, surprise, sadness, amusement (happiness)

- **Pluchik's wheel of emotions** [Plutchik, 2011; in (1)]: eight basic emotions:
  joy, trust, fear, surprise, sadness, disgust, anger, anticipation

---

Socio-Psychological Domain : Emotions
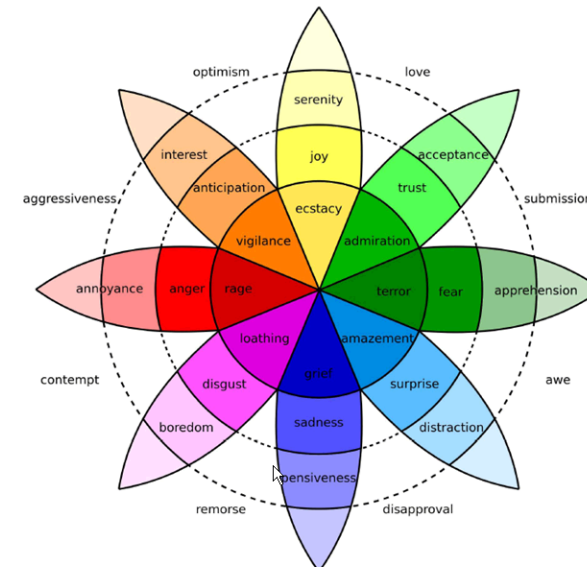
Plutchik's Wheel of Emotion. Source: [Plutchik, 2012; in (1)]

Socio-Psychological Domain : Emotions

Emotions

- **detection** via Social Signal Processing [Vinciarelli 2011]: galvanic skin response (GSK), cardiovascular measures, and electromyography (EMG) [Mandryk et al., 2006; in (1)], computer vision, audio based methods (Schuller, TUM)

- [**Lazzaro**, 2007; in (1)]: five **functions** of player emotion In digital games:
  - support enjoyment
  - focus attention
  - help in decision making
  - affect player's performance
  - support learning

Socio-Psychological Domain: Involvement

Forms of Engagement

three **levels of intensity** of involvement (in digital games)

- **Involvement** [Lazzaro, 2007; in (1)]

- **Presence**: „*the perceptual illusion of nonmediation*" [Lombard & Ditton, 1997; in (1)]

- **Immersion**: „*illusory reality*" [Bartle, 2009; in (1)]

- **Flow**: "*the holistic sensation that people feel when they act with total involvement*" [Csikszentmihalyi, 1975; in (1)]

Socio-Psychological Domain : Involvement

Forms of Engagement: Flow

- **characteristics** of **Flow** [Nakamura and Csikszentmihalyi, 2002; in (1)]:
  - Intense and focused concentration
  - merging of action and awareness.
  - loss of reflective self-consciousness
  - sense of total control of one's actions
  - distortion of temporal experiencee
  - experience of the activity as intrinsically rewarding

- **conditions** for **Flow** [Nakamura and Csikszentmihalyi, 2002; in (1)]:
  - sense of engaging challenges at appropriate level (neither overmatching nor underutilizing) to skills & capacities.
  - clear proximal goals
  - immediate feedback

Socio-Psychological Domain : Involvement

Forms of Engagement: Flow
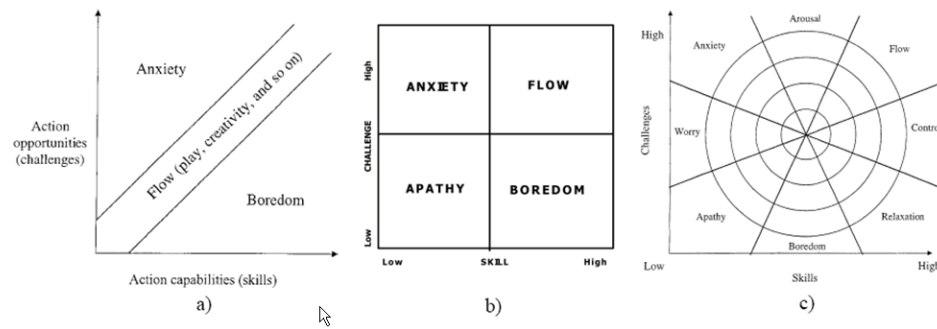
Different Models of Flow: (a) Original Three Channel Flow Model, (b) Four Channel Flow Model and (c) Eight Channel Flow Model. Sources: a) and c) [Nakamura and Csikszentmihalyi, 2002], b) [Novak *et al.*, 1997]. (all in (1))

Socio-Psychological Domain : Fun

Fun

[LeBlanc, 1999; in (1)]: **eight kinds of fun** (→ part of MDA framework ('Aesthetics') [Hunicke *et al.*, 2004; in (1)]:

- **Sensation:** *game as sense-pleasure*
- **Fantasy:** *game as make-believe*
- **Narrative:** *game as drama*
- **Challenge:** *game as obstacle course*
- **Fellowship:** *game as social framework*
- **Discovery:** *game as uncharted territory*
- **Expression:** *game as self-discovery*
- **Submission:** *game as pastime*

Socio-Psychological Domain: Fun

Fun

[Lazzaro, 2009; in (1)]: **four types of fun** :

- **Hard Fun** (Fiero): *personal feeling of triumph over adversity*. Frustration is a prerequisite for Fiero.
- **Easy Fun** (Curiosity): covers the *immersive aspects* of a game., experiences of wonder, awe, and mystery.
- **Serious Fun** (Relaxation): addresses the *visceral, behavior, and cognitive experiences* of players.
- **People Fun** (Amusement): *mechanisms for social experiences*.

Socio-Psychological Domain: Social Play

Social Play

key elements of social play [Isbister, 2009; in (1)]:

- **Emotional contagion:** [Hatfield et al., 1994; in (1)]: *tendency to automatically* mimic *and* synchronize *expressions, vocalizations, postures, and movements with those of* another person's *and, consequently, to* converge emotionally. Also applicable to HCI and NPCs [Reeves and Nass, 1996 in (1)], [Nass et al, 1996 in (1)]

- **Performance:** humans perform better when they are watched by other humans [Cottrell, 1972; in (1)]. Also applicable in HCI [Rickenberg and Reeves, 2000; in (1)].
  ↔ Hawthorne effect [Landsberger, 1958; in (1)]: change in human behavior just by the fact that the people know that they are being observed.

Socio-Psychological Domain: Social Play

Social Play

key elements of social play [Isbister, 2009; in (1)] (contd.):

- ○ **Learning:** Humans learn a lot from observing other humans performing a task [Bandura, 1977 in (1)].

- ○ **Relationship building:** *"Most game-play exists within exists within a social context"* [Isbister, 2009, p. 51]: social play: → trust, friendship, power relationships, alliances, alternative social roles and identities

---

Communities and Social Networks in Digital Games

Communities and Social Networks in Digital Games

Studies of Communities and Social Networks in Digital Games

- ● long history of Virtual Community research (see e.g. [Klastrup, 2003; in (1)]

- ● example in games: MMO(RP)G (WoW etc.): cooperation in game may be necessary; models of emotion expression etc.

- ● Social Media, Social Games: → large datasets to study human social behavior

- ● in-game vs out-game social relations → related [Jakobsson and Taylor, 2003; in (1)]
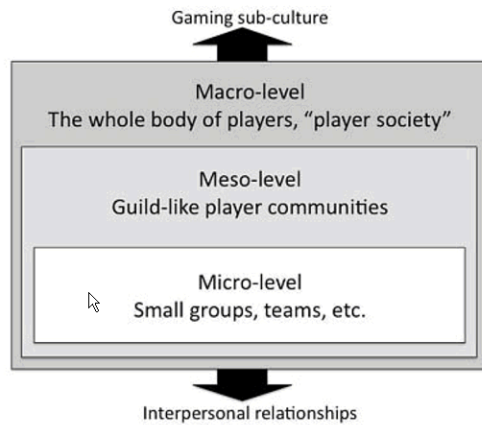

Communities and Social Networks in Digital Games

Studies of Communities and Social Networks in Digital Games: **research methods**

[Warmelink and Siitonen, 2011; in (1)]: MMORPG research: **four groups** of methods:

- ○ **ethnography / participant observation**: direct or indirect interviews, gathering of field data (e.g. chat logs), use of external sources such as manuals or player forums., video taping, focus groups (qualitative research)

- ○ **surveys** in and outside of the virtual worlds; → qualitative or quantitative results.

- ○ **data analytics**: data collection (crawling) and quantitative analysis (data mining, machine learning)

- ○ **social network analysis** → later in lecture in detail; example gold farming detection [Keegan *et al.*, 2010].

Studies of Communities and Social Networks in Digital Games
Ecosystem of Player Communities

[Warmelink and Siitonen, 2011; in (1)]

Studies of Communities and Social Networks in Digital Games
study topics:

○ **self-organisation** of players: short-term or long-time groups such as guilds [Nardi and Harris, 2006; in (1)], [Williams et al., 2006; in (1)], their context [Steinkuehler and Williams, 2006; in (1)].
  sub-topics:
  − social structuring: e.g. management, leadership, typology
  − rationales of social structures
  − culture and social norms
  − use of information and communication technology.

○ **demographics and psychographics**

○ **relationships between players and their avatars or characters** [Bainbridge, 2010; in (1)].

○ **learning** : e.g. in serious games

Studies of Communities and Social Networks in Digital Games
study topics (contd.):

○ **anti-social and misbehaving** conduct [Kirman et al., 2010; in (1)] [Achterbosch et al., 2008; in (1)].

○ **prediction of social interaction** [Putzke *et al.*, 2010; in (1)]

○ **communities that form around games** [Kirman, 2010; in (1)] [Wei et al., 2010; in (1)].

○ **technological aspects** [Achterbosch *et al.*, 2008; in (1)].

Descriptive Aspects:
Social Play