

Computer Games 2011/2012 Introduction

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"Games are a prosthesis for imagination" (Will Wright)







- Business of Games
- Age ratings
- Game Taxonomy



Gaming Business

AAA Games

- Considered as premium game projects
- Big budget, broad market, high quality
- Large teams, exhaustively tested, etc.



AAA Games - Examples

- Assassins Creed
 - Ubisoft, Ubisoft Montreal
 - Action adventure
 - http://assassinscreed.us.ubi.com
- Need for Speed: Hot Pursuit
 - EA, Criterion
 - Racing
 - http://hotpursuit.needforspeed.com/



Gaming Business

Indie Games

- Independent video games
- Created without (financial) support of publishers
- Typically relies on digital distribution



Indie Games - Examples

- World of Goo (2D Boy)
 - http://www.worldofgoo.com/
 - on site, Steam, Wii Ware, Mac Games Store, ...
- Braid (Number None)
 - http://www.braid-game.com/
 - Xbox, Steam, ...
- Flower (thatgamecompany)
 - http://thatgamecompany.com/games/flower/



Gaming Business Models

Gaming-Businessmodelle gestern, heute, morgen

-		Kunden	Entwicklungskosten	Kosten Kundenerwerb	Umsatz	Trend
	Konsole	200 Mio.	10+ Mio \$	Werbung	100 Mio. \$	•
f	Facebook	600 Mio.	100.000+\$	1,20 \$	100+ Mio. \$	Ы
	Internet	1,6 Mrd.	100.000+\$	1,40 \$	100+ Mio. \$	Ы
	Mobile	4,5 Mrd.	10.000+\$	< 0,1 \$	10 Mio.+ \$	Ы
	_			Quelle: eigen	e Darstellung nach Bigp	oint Zahlen



src. GamesMarkt 04/11

Gaming Business

Roles in the Games Development Process

Game Studio

creates the game

- Publisher
 - production & QA
- Distributor
 - digital, on media



Game Studio - Examples

- Harmonix
- Naughty Dog
- Bungie
- EA Sports
- People Can Fly



Publisher - Examples

- Electronic Arts
- Capcom
- Konami
- MTV Games



Distributor - Example

- EA Distribution
- Valve
- Sony
- Microsoft
- GOG



Distribution Media



Digital distribution

- Typically means "online" distribution
- Digital media based distribution
- Blue-Ray, DVD, UMD, cartridge, etc.

Hybrid methods

- DVD with online registration
- Codes, cards, etc.



Distribution - Steam

- Created & maintained by Valve
- STEAM[™]

- Supports indie games to AAA
- Includes community features
- Manages DRM (one online client)



Distribution - Xbox Marketplace

 Focus on indie, arcade and classic games



- Supports on demand downloads
- Based on virtual money (MS Points)
- Includes community features
- Manages DRM (one Xbox)



Distribution - PSN

- Focus on "smaller" games – indie, arcade, minis, PSP, etc.
- Supports on demand downloads
- Includes community features
- Manages DRM (one online, 3 installations)







Distribution - GOG

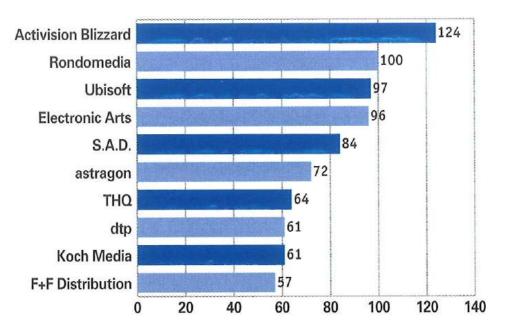
- Provides "old" games
- Working digital copies
- DRM free
- No community features
 - besides rating, collaborative filtering & comments





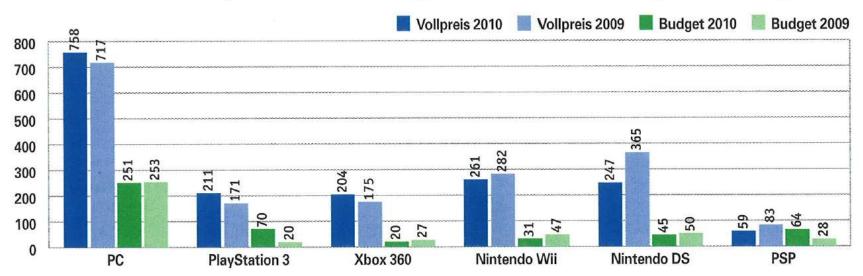


Die aktivsten Publisher (Vollpreistitel 2010)

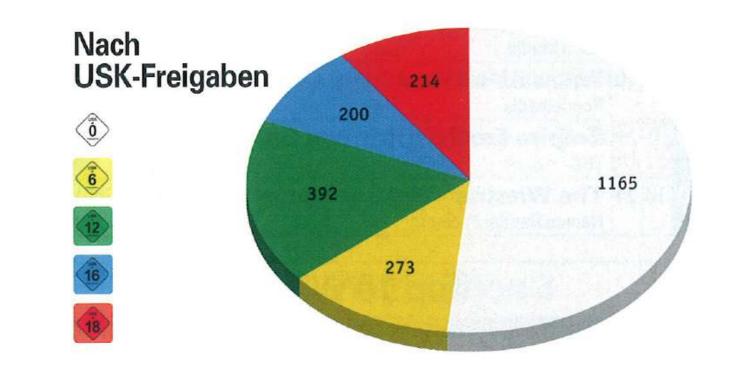




Vollpreis- und Budgetreleases im Vorjahresvergleich



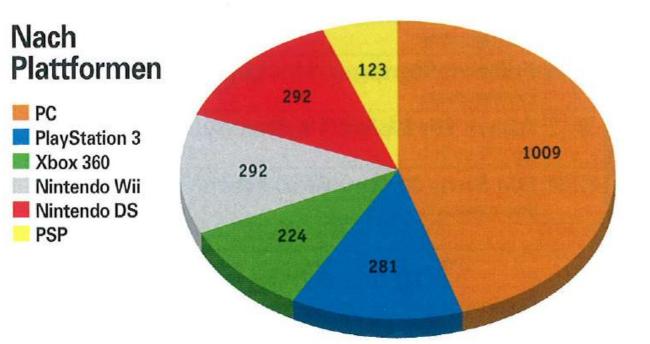






src. GamesMarkt 01/11



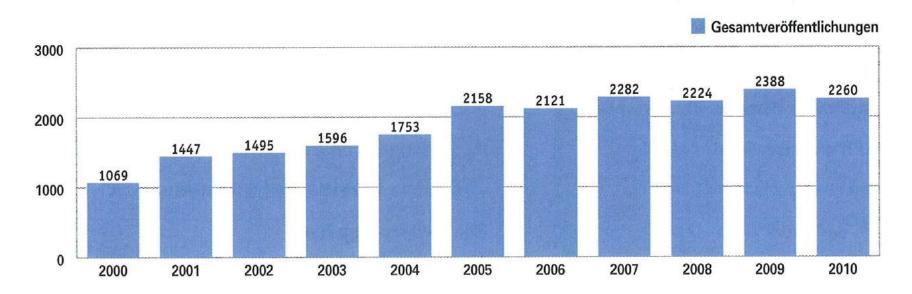




src. GamesMarkt 01/11



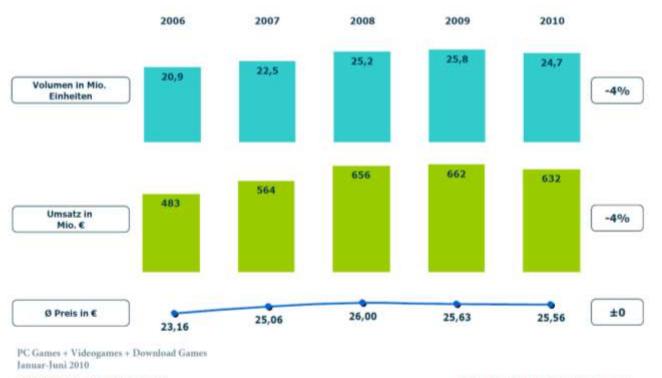
Gesamtzahl Releases 2000–2010











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BIU





BIU Marktentwicklung nach Plattformen

		2009	2010	10 vs 09
	Volumen in Mio. Einheiten	25,8	24,7	-4%
GAMES TOTAL	Umsatz in Mio. €	662	632	-4%
	Ø Preis in €	25,63	25,56	0%
	Volumen in Mio. Einheiten	12,2	11,5	-6%
PC	Umsatz in Mio. €	202	197	-2%
	Ø Preis in €	16,60	17,20	4%
	Volumen in Mio. Einheiten	8,6	9,2	7%
Konsole	Umsatz in Mio. €	323	334	3%
	Ø Preis in €	37,66	36,39	-3%
	Volumen in Mio. Einheiten	5,1	4,1	-19%
Handheid	Umsatz in Mio. €	136	102	-25%
	Ø Preis in €	26,92	24,71	-8%

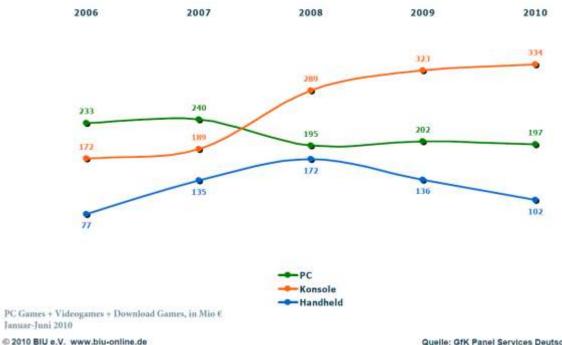
PC Games + Videogames + Download Games Januar-Juni 2010

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BIU Marktentwicklung im Jahresvergleich





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Anteil männlicher Spieler nimmt zu



PC Games + Videogames + Download Games, Angaben in % Januar bis Juni

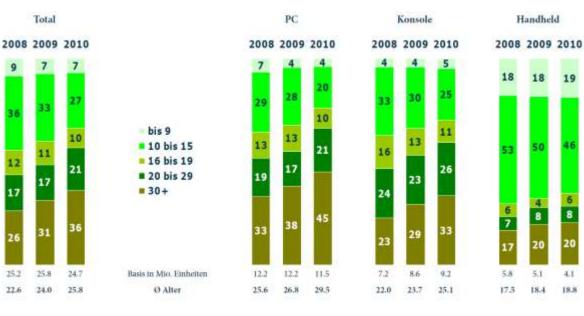
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Altersdurchschnitt steigt auf 25,8 Jahre



PC Games + Videogames + Download Games, Angaben in % Januar bis Juni

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Quelle: GfK Panel Services Deutschland

19

8

20

4.1

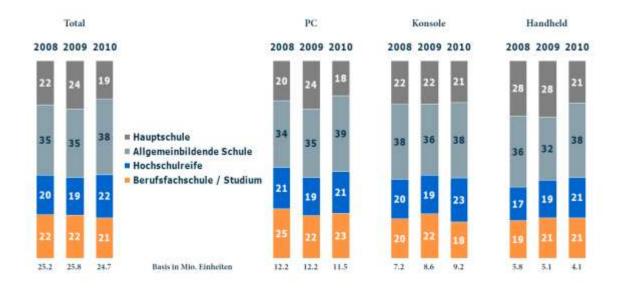
F8.8





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Bildungsniveau bleibt konstant hoch



PC Games + Videogames + Download Games, Angaben in % Januar bis Juni

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The Gamer

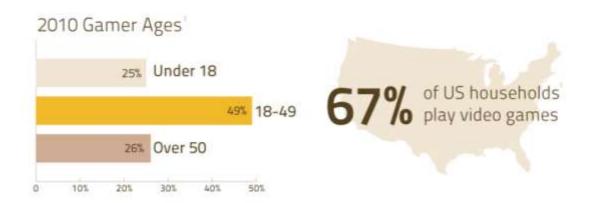
34YRS

The average age of a gamer

39YRS

The average age of most frequent game purchaser **12YRS**

Average number of years adult gamers have been playing computer/video games

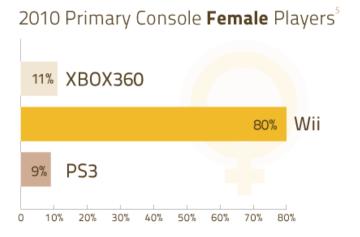


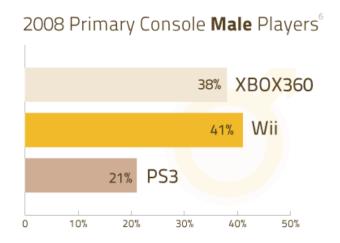




The 2010 average gamer spends 8 hours a week playing video games⁴









src. ESRB: http://www.esrb.org/about/video-game-industry-statistics.jsp





40% of all gamers are female

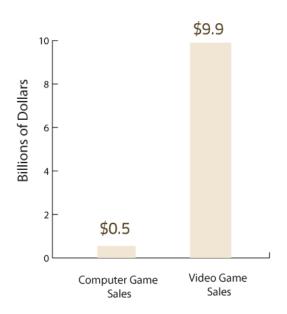


src. ESRB: http://www.esrb.org/about/video-game-industry-statistics.jsp

The Industry

According to data compiled by the NPD Group, a global market research company, and released by the Entertainment Software Association, the computer and video game industry sold 273 million units in 2009 leading to an astounding³









2009 Computer and Video Game Sales By ESRB Rating³

				48%	Everyone
	^{12%} Ev	eryone +10			
			^{23%} Teen		
	17%	Mature			
0%	10%	20%	30%	40%	50%

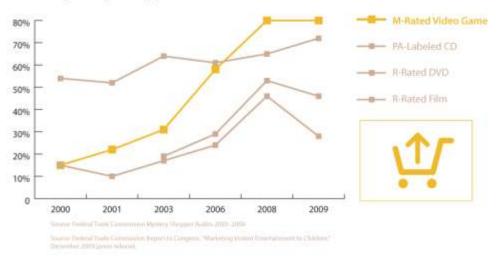


src. ESRB: http://www.esrb.org/about/video-game-industry-statistics.jsp

FTC Mystery Shops

The FTC also periodically conducts nationwide undercover shops of movie theaters and movie, music, and video game retailers. Their most recent survey found that 80% of individuals under the age of 17 were turned away when trying to purchase or rent M-rated games.

FTC Mystery Shopper Audits: 2000 - 2009





src. ESRB: http://www.esrb.org/about/video-game-industry-statistics.jsp

Business Model: Bigpoint

- Online Browser Games
 - Bigpoint.com biggest German gaming portal
 - In the top 3 gaming portals world wide
- Publisher
 - Development (bigpoint.com & selbst), licensing
- Content Provider
 - e.g. Sevengames
- Developer
 - own game studio





Business Model: Bigpoint

- More than 65 browser games
- More than 160 million gamers
- Selling virtual goods
 - Micropayment















(c) 2011 Bigpoint GmbH | Impressum | AGB | Status & Vorteilspakete | Support | Promocode aktivieren | Tulpgulden tauschen



Premium-Vorteile

E per mo

FARMERAMA bietet Dir ein Vorteilspaket an, das "Premium-Paket". Alle Premium-Pakete können monatlich abgeschlossen werden. Jeder Spieler kann die Dauer seines Premium-Pakets wählen:

- 6 Monate
- 12 Monate

Premium-Paket

- Gute Kunden Du bekommst jeden Tag doppelt so viele Aufträge!
- Dickes Auftragsbuch Speichere statt 10 bis zu 20 Aufträge im Bauernhaus!
- Großer Misthaufen Dein Misthaufen hat das doppelte Fassungsvermögen!

🗄 🛄 🚍 🛄 🖭 🗷 🚍 🔚

- Unendlicher Wassertank Dein Vorrat an Wasser wird nie ausgehen!
- · Mehr Ressourcen Beim Ernten profitierst Du von einer 5% höheren Chance, tolle Ressourcen zu bekommen.
- Große Nachbarschaft Du kannst nun bis zu 24 Freunde zu Deinen Nachbarn machen,
- · Wilde Wiese & Ziergarten Der Zugang zu beiden Flächen wird Dir freigeschaltet.
- · Wachturm Mit dem Zugang zum Wachturm kannst Du aktivieren, dass das Unkraut auf Deiner Farm sofort gejätet wird und Deine Bäume automatisch abgeerntet werden.



.**kerbau**

Farmerweiterungen

Premium-Vorteile

Viehzucht

Stadt

Forum

Support

Zurück

Spielregeln

src. Farmerama, http://www.farmerama.com

Demo: Die Siedler Online





Business Model: Gameloft

- Publisher and developer
 - mobile games
 - console games
- Develops for
 - Java, Brew, Symbian
 - WiiWare and DS
 - Microsoft's Xbox LIVE Arcade and PC
 - Apple's iPod, iTouch and iPhones





- 6 major studios
 - US, Canada, Romania, France, China and Japan
- 2,400 in-house developers
- 900 models of cell phones are supported
 - 4 billion game enabled handsets expected in 2012
- 122 million € sales in 2009
- Sales offices and partner in 80+ countries



Business Model: CryTek

"From AAA Retail to AAA Online"

- Product: Box vs. Service
- Gamers: Who will pay?
- Process: Gold Master vs. Open Beta+



AAA Online: Product Characteristics

- Communication is key issue
 - The community is always right
 - responsiveness
- Iterate forever (almost)
- Path to fun is critical
 - Instant fun vs. learning curve
- Virtual goods vs. boxed game



AAA Online: Gamers

- SHEEP (90-95 of 100)
 - Love shiny content, enjoy game horizontally
 - Do not dig deep into levels, features or difficulty
 - Make up the community both in demographic and size
- WOLVES (4-9 of 100)
 - Fans, dig vertically into game & appreciate depth
 - Enjoy online games in the same way as box buyers
 - Spend money to save time, not to dress up
- WHALE (0-1 of 100)
 - Wealthy, spends \$\$\$ per month to show off
 - Wants to get everything quick, spends also to speed up
 - Buys everything contributes most to avg. revenue / user (ARPU)





AAA Online: The Process



- Stricter time budgets vs. "It is never good enough"
 - Put features online
- Keep people entertained and maintain community
 - Frequent updates are expected (cp. TF2, Siedler Online)
- Iterate forever
 - create dev-test-deploy cycle on a monthly rhythm



Why should AAA Developers move to F2P?



According to C. Yerli: "Future of AAA on PC = AAA F2P on PC"

- Quality & quantity are crucial for long-life cycle success for AAA online gaming
- Apply experienced AAA team to achieve AAA quality content
- Invest in AAA 100% real-time technology with easy-to-use tools, quickly push out high quantity & AAA quality content



Where to go?



According to C. Yerli:

- Almost every AAA retail game can be transformed into a F2P game, in-game economics
- If not from scratch F2P, establish hybrid solutions now
- The minimum: Prepare your retail release for a follow up F2P release



CryTek's Commitment

• Warface (see video)







- Business of Games
- Age ratings
- Game Taxonomies



Entertainment Software Rating Board (ESRB)

- For interactive entertainment industry
 - North America
 - Non-profit, self-regulatory
- Goals
 - Assignment of ratings
 - Enforcement of adverting guidelines
 - Help in ensuring online privacy practices





ESRB Ratings Process (1)

- Ratings Process
 - in final stages of development
 - prior to a game being released
- Publishers submit
 - responses to ESRB questionnaire
 - supplementing with lyric sheets, scripts, etc.





ESRB Ratings Process (2)

- Submission is checked for completeness
 - involves ESRB staff members playing a beta or alpha version of the game
- Video footage is reviewed
 - by at least three specially trained game raters
 - full time job, adults, experience with children
- Each rater recommends
 - appropriate rating category
 - content descriptors



ESRB Ratings Process (3)

- Raters deliberate about rating
 - review of prior ratings of similar games
 - consensus on final rating
- ESRB staff members
 - check parity & consistency between ratings
 - issue certificate & rating report for publisher



ESRB Ratings Process (4)

- Publishers may appeal an ESRB rating
 - to an Appeals Board of publishers, retailers and other professionals
- Otherwise complete rating information is posted on the ESRB website
 - rating category, content descriptors, & rating summary
 - 30 days following the assignment of the rating



ESRB Ratings Process (5)

- Prior to release game is sent to ESRB
 - game packaging is reviewed to make sure the rating information is displayed accurately and in accordance with ESRB requirements.
 - play-test are conducted on the final version of a variety of games to verify that materials provided during the rating process were accurate and complete.



ESRB Ratings Process -Result



ESRB Game Ratings

Search Results

Your search by title 'world of goo' returned 2 Game Ratings.

Title	Publisher	Rating	Content	Platforms
World of Goo	Microsoft	Everyone	Comic Mischief	Windows PC
World of Goo is point-and-click puzzle game in which players guide goo-like creatures toward level goals. Players can create support structures and bridges from the goo creatures to help navigate hazards. Some levels require setting the [More]				
World of Goo	2D Boy	Everyone	Comic Mischief	Macintosh, Windows PC, Wii
				1 - 2 of 2

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ESRB RATING SEARCH APP

FOR IPHONE AND ANDROID



ESRB Ratings Process -Criteria



Consideration of

- the most extreme content of the game
 - in terms of relevant rating criteria such as violence, language, sexuality, gambling, and alcohol, tobacco and drug reference or use
- the final product as a whole
 - demonstrating the game's context (such as setting, storyline and objectives) and relative frequency of extreme content.



ESRB Ratings Process -Ratings

- eC (= early Childhood)
- E (= Everyone)
- E10+ (= Everyone 10+)
- T (= Teen; 13+)
- M (= Mature; 17+)
- AO (= Adults Only; 18+)
- RP (= Rating Pending)





ESRB Content Descriptors

- Alcohol Reference Reference to and/or images of alcoholic beverages
- Animated Blood Discolored and/or unrealistic depictions of blood
- Blood Depictions of blood
- Blood and Gore Depictions of blood or the mutilation of body parts
- **Cartoon Violence** Violent actions involving cartoon-like situations and characters.
- Comic Mischief Depictions or dialogue involving slapstick or suggestive humor
- **Crude Humor** Depictions or dialogue involving vulgar antics, including "bathroom" humor
- **Drug Reference** Reference to and/or images of illegal drugs
- **Fantasy Violence** Violent actions of a fantasy nature, involving human or non-human characters in situations easily distinguishable from real life
- Intense Violence Graphic and realistic-looking depictions of physical conflict. May involve extreme and/or realistic blood, gore, weapons and depictions of human injury and death
- Language Mild to moderate use of profanity
- Lyrics Mild references to profanity, sexuality, violence, alcohol or drug use in music
- Mature Humor Depictions or dialogue involving "adult" humor, including sexual references
- Nudity Graphic or prolonged depictions of nudity
- **Partial Nudity** Brief and/or mild depictions of nudity



ESRB Content Descriptors

- **Real Gambling** Player can gamble, including betting or wagering real cash or currency
- Sexual Content Non-explicit depictions of sexual behavior, possibly including partial nudity
- Sexual Themes References to sex or sexuality
- Sexual Violence Depictions of rape or other violent sexual acts
- Simulated Gambling Player can gamble without betting or wagering real cash or currency
- Strong Language Explicit and/or frequent use of profanity
- **Strong Lyrics** Explicit and/or frequent references to profanity, sex, violence, alcohol or drug use in music
- **Strong Sexual Content** Explicit and/or frequent depictions of sexual behavior, possibly including nudity
- Suggestive Themes Mild provocative references or materials
- Tobacco Reference Reference to and/or images of tobacco products
- Use of Drugs The consumption or use of illegal drugs
- Use of Alcohol The consumption of alcoholic beverages
- Use of Tobacco The consumption of tobacco products
- **Violence** Scenes involving aggressive conflict. May contain bloodless dismemberment
- Violent References References to violent acts



Pan European Game Information (PEGI)

- European "ESRB"
- Fully supported by the European Union
- Focus on protection of minors
 - Does not rate challenge or educational value





PEGI Ratings















Unterhaltungssoftware Selbstkontrolle (USK)



German institution

- based on the law on protection of minors
- very strict in Germany (e.g. mail order)
- Games w. USK rating are sold in AT & CH
 - Although PEGI is used there
 - Just one version with German translation





USK & BPjM



- Games considered "jugendgefährdend"
 - Are not rated by the USK but by the "Bundesprüfstelle für jugendgefährdende Medien"
 - Get on a list of media harmful for minors
 - Cannot be advertised in stores and media or sold to minors

Criteria

"... vor allem unsittliche, verrohend wirkende, zu Gewalttätigkeit, Verbrechen oder Rassenhass anreizende Medien sowie Medien, in denen (1) Gewalthandlungen, insbesondere Mord- und Metzelszenen selbstzweckhaft und detailliert dargestellt werden oder (2) Selbstjustiz als einzig bewährtes Mittel zur Durchsetzung der vermeintlichen Gerechtigkeit nahe gelegt wird."



USK & BPjM: Examples

- Return to Castle Wolfenstein
 - was on the "Index"
 - censored version for Germany
 - also because of the "Verbotsgesetz 1947"
- Gears of War
 - was not published in Germany
- Quake, Doom, etc.







- Business of Games
- Age ratings
- Game Taxonomies



Game Taxonomies: Scientific Discussion



Classification of games on 4 levels

Platform

– hardware: PC, Wii, PS3, etc.

• Milieu

- visual genre: fantasy, scifi, horror, etc.



Game Taxonomies: Scientific Discussion



Mode

- "How the game world is experienced ..."
- single-player, multi-player, MMO
- rails, tunnel, or open world
- competitive or coop

Genre

- Problems with definition and classification
- Understanding as "category"?



Simulation

- sports, flying, driving, dynamics of cities, communities, etc.
- "laws of physics" vs. "laws of play"
 cp. Gran Turismo & Super Mario Cart



Strategy

- Real time vs. turn based
- Integrity is complicated
 - Many games require strategic play (Sim City, Battlefield, Blur, etc.)



Action

- First Person vs. Third Person
 - From camera perspective (film)
- Player performs a desired action by selecting the correct inputs
 - In contrast to selecting desired actions and the computer will determine the performance





Role-playing

- Playing a role in a predefined world
- Transforming the role of a character within the game



Conclusion on Apperley (2006)



- Game genres are not very well defined
- They are not mutually exclusive
- People do not agree on a taxonomy



A Game Taxonomy (Crawford, 1982)



Skill-and-Action Games

- Combat Games
- Maze Games
- Sports Games
- Paddle Games
- Race Games
- Misc. Games

Strategy Games

- Adventures
- D&D Games
- Wargames
- Games of Chance
- Educational Games
- Interpersonal Games



Conclusion on Crawford (1982)



- Crawford considers Donkey Kong
 - Classified as "misc. game"
 - Like a race game with intelligent obstacles
- Paddle games are a dedicated class
 - Nowadays we'd add this to "arcade games"
- Many current categories are missing
 - First person shooters, online games, arcade, casual games, AAA games, etc.



Wisdom of the crowds?

- 84 genres
- Wikipedia
- merged de+en

AAA game Action game Action role-playing game Action-adventure game Adventure game Arcade game Art game Artillery game Beat 'em up Belt scroll Bishojo game Browser game **Business simulation game** Casual game **Cinematic platformer** City-building game Collectible card game Combat flight simulator Console game Construction and management simulation Core game Danmaku Dating sim Dota (genre) Dungeon crawl Escape the room **Fighting game**

First-person shooter God game Government simulation game Grand Theft Auto clone Graphic adventure game Interactive movie Japanese adventure Jump and run Life simulation game Light gun shooter Massively multiplayer online game Massively multiplayer online role-playing game Maze Minigame Mobile game MUD Music video game Non-game Nonviolent video game Otome game Platform game Programming game Puzzle video game Racing video game Rail shooter

Railroad game Real-time strategy Real-time tactics Retro game Rhythm game Roguelike Role-playing video game Shoot 'em up Shooter game Sim racing Simulation video game Social simulation game Space flight simulator game Sports game Stealth game Strategy video game Survival horror Tactical role-playing game Tactical shooter **Text Tiles** Third-person shooter Tower defense Traditional game Turn-based strategy Turn-based tactics Vehicle simulation game Vehicular combat game Wargame



Meta Sites

Metacritics

- Action
- Action Adventure
- Adventure
- Driving, Racing
- Music
- Puzzle
- RPG
- Shooter
- Sports
- Strategy



Gamerankings

- Action
- Action Adventure
- Adventure
- Driving
- Misc.
- Role-playing
- Simulations
- Sports
- Strategy