Games, Cognition, and Emotion
Conference on Cognitive Studies of the Video Game Experience
University of Hamburg, 5-6 July 2013

About the Conference

The conference *Games, Cognition, and Emotion* focuses on the experience of playing video games from a cognitive perspective. Within the field of media studies (and film studies in particular) cognitive psychology has had a strong influence on the theoretical modeling of audience activity and specific aesthetic experiences, such as empathy, identification, and the emotions. The conference aims to bring together scholars from different disciplines to discuss how cognitive psychology can be used as a theoretical framework for describing player's cognitive, affective and bodily responses to playing video games, and how it can inform the analysis of video games as artifacts designed to elicit such responses.

Conference Venue
University of Hamburg
Room 221, ESA 1 West
Edmund-Siemers-Allee 1
20146 Hamburg, Germany

Public Transport Connection
S-Bahn station "Dammtor"
MetroBus station "Bf. Dammtor"
U-Bahn (metro) station "Stephansplatz (Oper/CCH)"
Website of the public transport operator: www.hvv.de

Accessibility
The conference venue is barrier-free accessible if you take the elevator to the 2nd floor.

Registration
Attending the conference is free, but registration is required. Please register by submitting your name, email and institutional affiliation at the conference website: www.cognitivegamestudies.com.

Accomodation
Conference speakers are accommodated at the **Hotel Wagner** (see below). Other conference participants please check one of the online hotel booking sites, e.g. HRS (www.hrs.com).

Organisational Links
City map
Tourist information
Flight
To and from the Airport
Train schedule

Conference Organizer
Felix Schröter
Institut for Media and Communication
University of Hamburg
Von-Melle-Park 6
20146 Hamburg, Germany
felix.schroeter@uni-hamburg.de

Körber-STIFTUNG Forum für Impulse

Research Center for Media & Communication

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IMK

Accomodation Details

Conference speakers are accommodated at the **Hotel Wagner** (❶ see below) which is located just about 100 m from the conference venue (❷). The accessibility of the hotel is very convenient and easy – i.e. the train station "Hamburg-Dammtor" (also stop for the high speed train ICE) is only on 200 m distance. The distance to Hamburg Airport is 8 km and there is good connection with public transportation. Free of charge public parking is possible right in front of the hotel. A 24-hours check-in service as well as baggage storage is available.
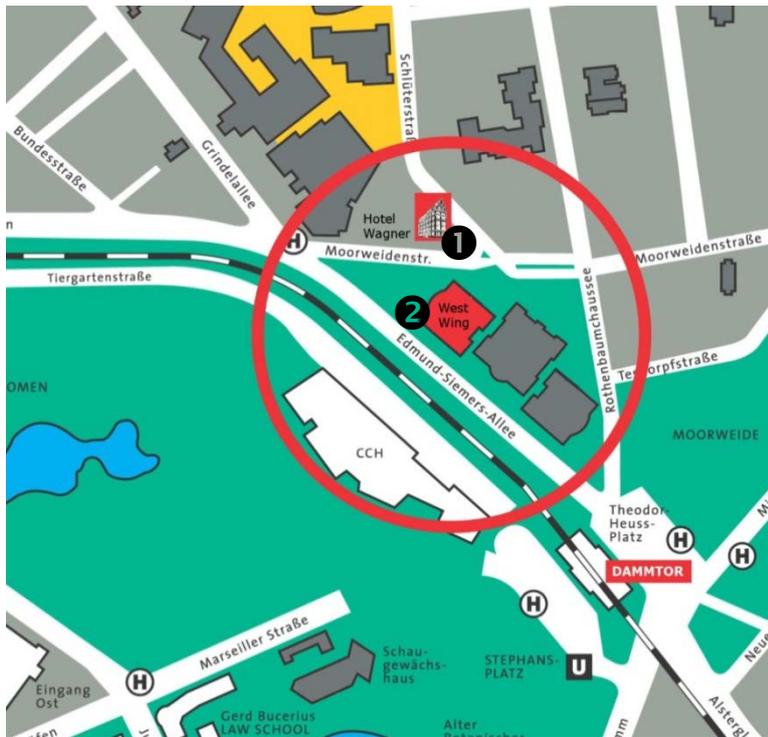
Hotel Wagner im Dammtorpalais
Moorweidenstr. 34
20146 Hamburg, Germany
info@hotel-wagner-hamburg.de
Phone +49 40 450 131 0

❶ Hotel Wagner

❷ ESA 1 West (conference venue)

Conference Venue

The conference venue is Room 221 in the West wing of Hamburg University's main building ("ESA 1 West"), which is located in the Edmund-Siemers-Allee 1, just across the train station "Hamburg-Dammtor". You can reach the station via public transport:

From Hamburg Airport: The S-Bahn (suburban rail network) line S1 operates every 10 minutes between Hamburg Airport and Hamburg's central railway station, "Hauptbahnhof", a journey of only 25 minutes. The "Hamburg Airport (Flughafen)" S-Bahn station is directly in front of the terminals and is easily reached by lift, escalator or stairs. From "Hauptbahnhof" take the S-Bahn lines S11, S21, or S31 to reach "Dammtor" within 2 minutes.

By MetroBus: From "Hauptbahnhof" take the bus lines 4 (in the direction of "Wildacker") or 5 (in the direction of "Burgwedel"). After 13 minutes exit at "Bf. Dammtor".

By metro (U-Bahn): The closest metro station is "Stephansplatz (Oper/CCH)" which can be reached via U-Bahn line U1. From there follow "Dammtordamm" until you reach train station "Dammtor". Turn left into "Edmund-Siemers-Allee". After 100 m the conference venue is on your right.

Wireless Access and Audio-Visual Equipment

Wireless access: If you wish to access the wireless network at the conference venue there are two options: (1) access via eduroam, (2) access via guest login.

(1) Eduroam: If you wish to use the *eduroam* service, you need to make sure that your home university does support *eduroam* (see https://www.eduroam.org for details). You (or your network administrator) will have to configure your computer to enable *eduroam* access.

(2) Guest login: When checking-in at the conference you can also ask for a temporary guest access. We will provide you with a unique username and password which will be valid for the time of the conference. However, you will have to configure your computer to access the SSID „GUEST" (see http://www.rrz.uni-hamburg.de/fileadmin/internet_kommunikation/ssid_guest_user-manual_short_en.pdf for details).

Audio-visual equipment: Room 221 of ESA 1 West is equipped with a projector that can accommodate both PC and Mac laptops for Powerpoint/Keynote presentations (via VGA connector). If you are a Mac user please bring your own adapters (e.g. VGA–DVI, VGA–Lightning, etc.). Please note that there is no DVD player available for projecting clips from DVDs. If you have other audio-visual needs, please contact felix.schroeter@uni-hamburg.de.

Food and Beverage

Our continuous break service offers sparkling & still water, soda, juice, coffee and tea throughout the day. Snacks at coffee break will also be provided. However, the costs for dinner on Friday 5th and lunch on Saturday 6th must be met by the participants. Suggestions for places to eat will be provided at the conference. In addition, there is a small café on the ground floor of ESA 1 West which is closed on Saturday but offers and variety of drinks and snacks on Friday between 8am und 6pm.

Useful Phone Numbers

Felix Schröter	+49 (0) 176 21 64 62 54
(conference organizer)	+49 (0) 40 42838 4815 (office)

Emergency	Police	+49 110
	Ambulance	+49 112
	Fire Brigade	+49 112

Taxi	+49 (0) 40 211 211
	+49 (0) 40 66 66 66

 Please enjoy the conference!
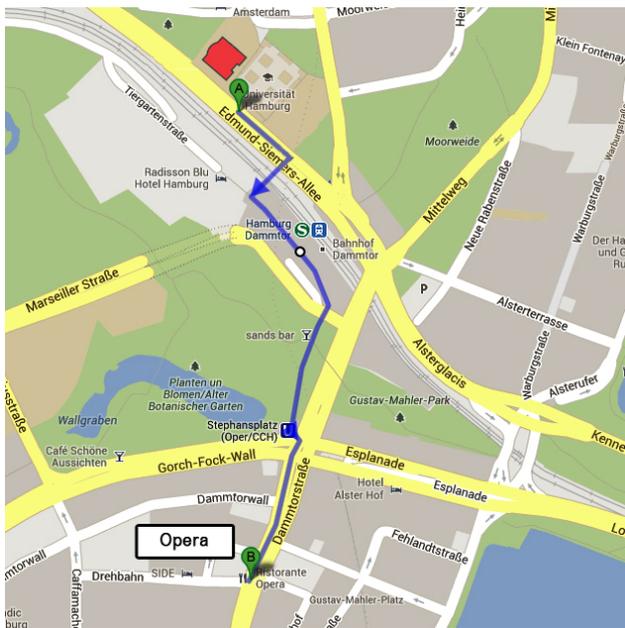
Games, Cognition, and Emotion

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DINNER ON FRIDAY, JULY 5

On Friday evening (at around 8 p.m.) there is a table reserved at the Italian restaurant "Opera" not far from Bahnhof Dammtor. (However, the costs for dinner must be met by the participants.)

Please feel free to join us!

Restaurant "Opera"
Dammtorstraße 7, 20354 Hamburg

www.ristorante-opera.com

Distance: 10 min

Cross "Edmund-Siemers-Allee" and follow the street until you reach Bahnhof Dammtor. Enter the station, exit it on the other side, then take the pedestrian bridge that takes you along "Dammtorstraße". Follow the street, crossing "Gorch-Fock-Wall". After a short walk the restaurant "Opera" in on your right.

PLACES TO EAT ON SATURDAY, JULY 6 (Lunch break, 12–13.30 p.m.)

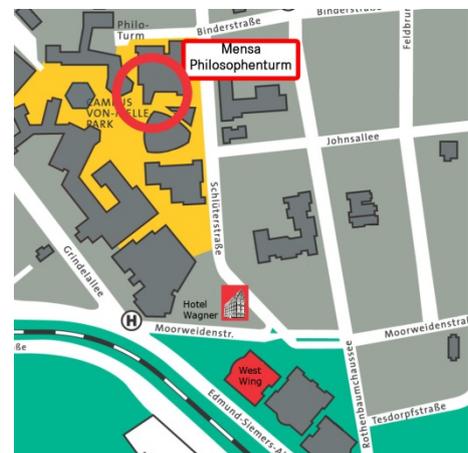**University Canteen "Mensa Philosophenturm"**
Von-Melle-Park 6, 20146 Hamburg

Open: 8.00 a.m. – 2.30 p.m.

Prices: cheap

Distance: 5 min

Follow "Schlüterstraße" in the direction of Hamburg University's main campus. Cross the campus until you reach the 15 storey-building Philosophers' Tower. Find the canteen on the ground floor.

University Canteen "UNIPARK"
Schlüterstraße 28, 20146 Hamburg

Open: 10 a.m. – 6 p.m.

Prices: cheap – moderate

Distance: 5 min

Follow "Schlüterstraße" in the direction of Hamburg University's main campus. Stay on "Schlüterstraße" until the "Rechtshaus" appears to your right. Find the canteen on the ground floor next to the building's main entrance.
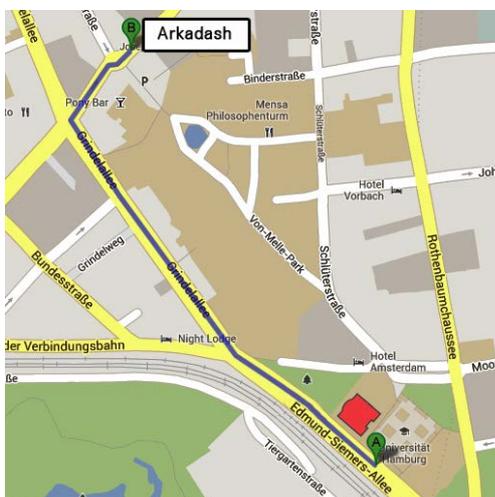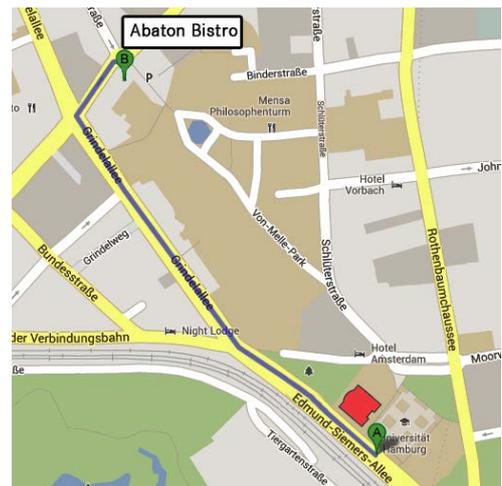
Bistro "Abaton Bistro"
Grindelhof 14a, 20146 Hamburg

Open: noon – midnight

Prices: moderate

Distance: 5–10 min

Stay west of Hamburg University's main campus following first "Edmund-Siemers-Allee", then "Grindelallee". After a 5 min walk turn right into "Grindelhof" and follow the street until you get to the crossroads. The "Abaton Bistro" is on your right.

Restaurant "Arkadash"
Grindelhof 17, 20146 Hamburg

Open: 10 a.m. – midnight

Prices: moderate

Distance: 5–10 min

Stay west of Hamburg University's main campus following first "Edmund-Siemers-Allee", then "Grindelallee". After a 5 min walk turn right into "Grindelhof" and follow the street until you get to the crossroads. The 'turkish-hanseatic' restaurant "Arkadash" is on your left.

Games, Cognition, and Emotion
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Friday, July 5, 2013

11.30   Registration

12.00   Welcome and Introduction

12.30   **Keynote Lecture** Torben Grodal, University of Copenhagen
Video Games, the PECMA Flow and the Conflict Between Control Pleasures and Pleasures of Abandonment

13.30   Break

13.45   Panel I: Games and Cognition

Andreas Gregersen, University of Copenhagen
Video Games, Canonical Agency, and Embodiment

Benny Liebold, Chemnitz University of Technology
States of Mind Are Not Merely Cognitive Phenomena. The Link Between Emotion and Focused Attention Allocation During Gameplay

Jan-Noël Thon, University of Tübingen
Narrative Comprehension and Video Games. Simulated Gameplay, Narrative Representation, and the Intersubjective Construction of 'Interactive' Storyworlds

15.30   Coffee Break

16.00   **Keynote Lecture** Bernard Perron, University of Montréal
The Thing Called Gameplay Emotion, And How It Is Bred in the Gamer's Affective Space

17.00   Break

17.15   Panel II: Games and Emotion I

Kathrin Fahlenbrach, University of Hamburg
Affective Spaces in Video Games

Jonathan Frome, University of Texas at Dallas
Sadness in 1600 Pixels. Emotion and Jason Rohrer's PASSAGE

Sebastian Möring, IT University of Copenhagen
THE MARRIAGE *– Love at Sight, Fear at Play*

10.00   **Panel III: Games and Emotion II**

Felix Schröter, University of Hamburg
My Avatar and Me. Toward a Cognitive Theory of Game Characters

Susanne Eichner, University of Film and TV Konrad Wolf Potsdam
Children's Characters in Video Games. Emotional Alignment and Emotional Triggers

Julia Kneer, Erasmus University Rotterdam
Being Killed by Rainbows. Displayed Violence, Difficulty, and Performance as Predictors for Postgame Emotions

12.00   Lunch

13.30   **Keynote Lecture** Christoph Klimmt, Hanover University of Music, Drama and Media
The Video Game Player's Self on a Fantastic Ride. Social Cognition as Subjective Process and Objective Variable

14.30   Break

14.45   **Panel IV: Games and Effects**

Leonard Reinecke, Johannes Gutenberg University Mainz
Intrinsic Motivation and the Video Game Experience. On the Complex Interaction of the Use of Video Games and Psychological Well-Being

Daniel Pietschmann, Chemnitz University of Technology
Spatial Mapping of Input and Output Spaces in Video Games

16.00 Coffee Break

16.30 Closing Discussion

Book of Abstracts

Torben Grodal, University of Copenhagen
grodal@hum.ku.dk

Keynote Lecture: Video Games, the PECMA Flow and the Conflict Between Control Pleasures and Pleasures of Abandonment

The lecture will first provide a short sketch of the brain in relation to narratives and games, based on the PECMA flow model. It will describe how art and entertainment may be described in relation to the brain flow from perception to motor action, and focus on five different functions: perception, association-memory, emotions, cognition/motor planning, and arousal reduction features. Entertainment and narrative may be divided in four different prototypes: those that focus on perception, those that focus on associations, those that focus on cognitive and motor control, and those that focus on giving up control (sad narratives, comic narratives and playfulness). It will discuss how games are strongly related to the third group that is based on cognitive-motor control, supported by dopaminergic seeking functions, whereas games to a large degree rule out emotions based on passive effects. It will discuss the paradox that although video games are described as a form of playfulness, it is in several dimensions distinct from playfulness, due to the importance of control.

In continuation of this, it will discuss why games predominantly are linked to 'control' genres such as action-adventure, horror, and activities based on low order control like ANGRY BIRDS, whereas genres based on giving up control such as comic entertainment, sad melodramas or love stories are much less suited for being made into games. It will describe how games are based on a link between frontal brain areas and the peripheral muscles, whereas sad and comic entertainment activate central muscle groups, and stories of love, attachment and playfulness integrate experiences linked to reduction of body delimitation that is the opposite of motor control.

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Torben Grodal is Professor of Film Studies at the University of Copenhagen. His books include *Moving Pictures: A New Theory of Film Genres, Feelings and Cognition* (1997) and *Embodied Visions: Evolution, Emotion, Culture and Film* (2009).

Andreas Gregersen, University of Copenhagen
agr@hum.ku.dk

Video Games, Canonical Agency, and Embodiment

Video games are generally accepted as interactive media. There are several ways to conceptualise interactivity, but instead of attempting a full definition, I will focus on laying out a conceptualization of the embodied intentional agency of the player, since this is a plausible necessary if not sufficient component in any conceptualization of interactivity. A rudimentary sketch of interactivity, mostly relevant for digital games employing avatars in virtual environments, would go as follows: Embodied players are coupled to body representations through mapping of actions. Drawing on philosophy of action and cognitive linguistics I will sketch a canonical agent role for embodied agents such as players and their avatars: An intentional agent acting upon a patient by way of an instrument. This canonical agent role is then used as a stepstone to develop a formalist/functionalist framework for analyzing video games. I will show how canonical agency plays a major role in the formal structures of several video game genres and, in addition, I will analyze the phenomenology of this canonical agent role as it might be experienced from the viewpoint of embodied players. For the second part of the framework, the concepts of ownership of actions and body representations will be employed and contextualized with reference to particular genres.

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Andreas Gregersen is Assistant Professor at the Department of Media, Cognition and Communication at the University of Copenhagen. Current research interests include cognitive theory, narratology, genre theory, film structure, digital media and computer game structure and representations of violence across media; he is currently working on some of the theoretical-methodological problems related to researching interactive media and to researching sequential data such as film. He teaches communication theory and digital media at the Cognition & Communication programme, and from 2009-2012 he coordinated the programme.

Benny Liebold, Chemnitz University of Technology
benny.liebold@phil.tu-chemnitz.de

States of Mind Are Not Merely Cognitive Phenomena: The Link Between Emotion and Focused Attention Allocation During Gameplay

In order to explain the experience of playing digital games, researchers suggested several concepts of states of mind, such as flow, presence and immersion. Despite the fact that these concepts show a distinct amount of overlap, they are all based on the premise that the player continuously focuses her attention at certain elements of the gameplay situation—I will therefore refer to these phenomena as states of focused attention.

Typically, these states of focused attention are conceptualized on a continuum between high-order and automated cognitive processes. Some approaches mention an additional emotional component which is characterized as a state induced by intense emotional reactions towards gameplay situations. However, we know from psychological research that cognition and emotion are not autonomous and separated components of our cognitive system—they are highly intertwined. The root of this problem is, at least to some extent, the typical definition of the term emotion: Emotions are not only the intense and conscious feelings associated with certain events—instead emotional processing (i.e. emotionally moderated and mediated cognition) is a fundamental element of our cognitive system.

In this talk I argue that emotional processing is at the core of states of focused attention and can be regarded as a mechanism for continued attention allocation to digital games. This perspective on emotions is to some extent supported by neuroscientific research on the interaction between emotionally relevant nuclei and sensory cortices. For example, amygdala activity is believed to feed back into sensory cortices, thereby selecting emotionally relevant stimuli for deeper processing. This approach sheds new light on the relevance of related work linking structural elements of gameplay settings to the player's emotional reactions: If we identify elements eliciting emotional reactions, we will at least partially be able to explain why players are focusing their attention on digital games.

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Benny Liebold is Junior Lecturer at the Institute for Media Research, Chair of Media Psychology, Chemnitz University of Technology and Research Associate at the graduate program *Crossworlds - Connecting Virtual and Real Social Worlds* of the German Science Foundation, Chemnitz University of Technology. He is currently working on his dissertation thesis *Adaptive Facial Expression of Emotion in Virtual Agents and Their Effects on User Evaluation.* His research interests include emotions and media, virtual agents, media psychology (experience and behavior in context of media usage) and computer game studies.

Jan-Noël Thon, University of Tübingen
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Narrative Comprehension and Video Games. Simulated Gameplay, Narrative Representation, and the Intersubjective Construction of 'Interactive' Storyworlds

Located within a larger project on transmedial narratology, the paper examines how contemporary ('narrative') video games may represent not only game spaces in which the gameplay takes place but also storyworlds in which these game spaces are located. Building on research from philosophy and cognitive narratology, I will argue that storyworlds are best understood as intersubjective communicative constructs that recipients construct on the basis of (more or less) narrative representations, guided by mental dispositions (including perceptual and cognitive capacities) as well as communicative rules (including medial and generic conventions), and oriented by hypotheses about authorial intentions.

Video games' interactive nature, however, makes this process of storyworld construction comparatively complex: on the one hand, the 'local' representation of simulated gameplay may cue players to construct mental representations of something resembling a storyworld, but most players will recognize that the resulting mental representations may differ significantly from player to player and from playing session to playing session. On the other hand, certain parts of video games—cut-scenes and scripted events, in particular, but also game spaces and certain 'common' elements of the simulated gameplay—are 'stable' enough to contribute reliably to the detailed representation of an 'intersubjective' storyworld.

Against this background, I propose not only that there is an intersubjectively 'stable' core of representations generated by contemporary video games, but also that recipients will apply medium-specific 'charity' when attempting to intersubjectively construct a storyworld on the basis of a combination of narrative strategies of representation and interactive simulation: in coping with the inconsistencies that commonly occur between the simulated gameplay and more prototypically narrative elements of video games, players refer to their knowledge of video game-specific medial conventions, which allows them to ignore certain 'unstable' or 'inconsistent' aspects of the representation.

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Jan-Noël Thon is a Research Associate at the Department of Media Studies of the University of Tübingen, Germany. He received a Ph.D. scholarship from the German National Academic Foundation from January 2009 to December 2011 and was Research Associate to Marie-Laure Ryan during her GFK Fellowship at the Johannes Gutenberg-University Mainz from September 2010 to September 2011. His research interests include transmedial narratology, transmedial character theory, comics studies, film theory, game studies, and convergent media culture.

Keynote Lecture: Games and Emotion

Bernard Perron, University of Montréal
perron.bernard@videotron.ca

Keynote Lecture: The Thing Called Gameplay Emotion, And How It Is Bred in the Gamer's Affective Space

Readers and spectators have long been responding emotionally to works of art. However, the explicit interactive nature of the video game has undoubtedly come to elicit new kinds of emotion for the gamer. Referring to the causes, characteristics and basic components of a typical emotion (the appraisal structure and action tendency, previously emphasized elsewhere, but also the notions of temporality, partiality, instability, intensity and concerns for oneself and/or for others), this talk will aim to better define these 'gameplay emotions'. As film techniques can for instance cue and enhance the viewer's visceral and emotional experience to movies, we have to recognize and examine how the interaction between game features (such as controls, rules, mechanics, dynamics and systems) are as much designed to stir up the gamer's actions and shape his affective space. But as this talk will also wish to underline, we cannot forget to study the relation between the emotions called forth by the gameplay and the ones kindled by the artifact and the fiction and narrative. Although they are known to be really touching games, there is undeniably a world of difference between playing thatgamecompany's JOURNEY (2012) and Telltale's THE WALKING DEAD (2012). Other games like SHADOW OF THE COLOSSUS (Team Ico, 2005), HEAVY RAIN (Quantic Dream, 2010) and RESIDENT EVIL 6 (Capcom, 2012) will be analyzed in order to exemplify the proposed theorization.

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Bernard Perron is Professor of Cinema Studies at the University of Montréal. He is the author of *Silent Hill: The Terror Engine* (2012), co-editor of *The Video Game Theory Reader 1* (2003) and *2* (2009), as well as editor of *Horror Video Games: Essays on the Fusion of Fear and Play* (2009). His research and writings concentrate on editing in early cinema; on narration, cognition, and the ludic dimension of narrative cinema; and on interactive cinema and video games.

Kathrin Fahlenbrach, University of Hamburg
kathrin.fahlenbrach@uni-hamburg.de

Affective Spaces in Video Games

The multimodal design of spaces in video games relevantly guides the affective experience of the players. It implies not only cues for cognitive orientation and disorientation, but also emotion cues performed by visual, acoustic, and senso-motoric devices. Thereby complex emotion scripts are addressed in players' minds and bodies that are given the gestalt of embodied metaphors. As will be argued in the paper, players are moving, acting, and sometimes interacting with other players in metaphorical spaces that are densely designed to make them experience genre specific game emotions.

The paper will discuss relevant affective functions of spaces for game-play in different genres and present a cognitive approach to analyze their metaphoric and multimodal design.

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Kathrin Fahlenbrach is Professor of Film and Media Studies at the University of Hamburg, Germany. One of her main research topics lies in emotion, embodiment and cognitive metaphors in moving images. She is author of the book *Audiovisual Metaphors. Embodied and Affective Aesthetics in Film and Television* (original title: *Audiovisuelle Metaphern. Zur Körper- und Affektästhetik in Film und Fernsehen*, Marburg: Schüren-Verlag 2010).

Jonathan Frome, University of Texas at Dallas
jonathan.frome@gmail.com

Sadness in 1600 Pixels. Emotion and Jason Rohrer's PASSAGE

Previously, I have defended a somatic model of videogame emotion based on Wittgenstein's notion of 'seeing-as'. The core idea of this model is that any particular element of a videogame can create different types of emotions based on the cognitive framework through which it is perceived. In this talk, I will explain my model by analyzing Jason Rohrer's independent, open-source videogame, PASSAGE. This 'art-game' has unusual elements that elicit a variety of emotions from the player, including sadness, but it manages to do this without any significant reliance on character or narrative. The game succeeds in this goal by drastically limiting common types of player engagement to encourage uncommon emotional responses.

Note: Although familiarity with this game is not at all necessary for my talk, I encourage participants to play the game in advance. The game is very short (gameplay stops after 5 minutes), free, open-source, and available for PC, Mac, and Linux. Download it at http://hcsoftware.sourceforge.net/passage/

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Jonathan Frome is a Senior Lecturer at the School of Interdisciplinary Studies at the University of Texas at Dallas where he has also been Assistant Professor of Film and Digital Media in the School of Arts and Humanities (2008-2012). He holds a doctoral degree in Communication Arts (Film Studies) since 2006. In his Ph.D. thesis *Why Films Make Us Cry but Videogames Don't* he addressed questions about how traditional and new media elicit emotions and why different media tend to elicit different kinds of emotions. His research interests include media psychology, film and video game aesthetics, documentary and animated film, Asian film, and video/media production.

Panel II: Games and Emotion I

Sebastian Möring, IT University of Copenhagen
smam@itu.dk

THE MARRIAGE – *Love at sight, fear at play*

In this paper I intend to demonstrate how the emotions of love and fear are being represented and/or are present in the semiotically abstract game THE MARRIAGE (Humble 2006) in order to contribute to questions of presentation and representation of emotions in games. The thesis to be argued is that the representation of love in the game is only possible through its phenomenological absence (Sartre 2003) and the presence of its emotional opposite, fear, on the level of the gameplay experience. I suggest taking two perspectives on the game which have methodological implications for the argument to be made. The first perspective requires seeing the game as representing something else, the implicit seeing-as of a simulation. The second perspective requires to see the game as such, as an autonomous game object (Aarseth 2011). Following the first perspective I will show that a metaphorically structured concept of love (Möring forthcoming) is represented on the game's semiotic layer as well as the game's structural layer since the player's essential task in the game is to create situations of closeness between the game tokens against and simultaneously through the structure of the game in order to ensure the game's continuation. Following the second perspective I will argue that the necessity of the game's continuation is manifest in the game's agonistic structure which on an experiential level is present as fear in terms of the fear of failing (Möring forthcoming). From this perspective the player has to avoid situations of distance in the game. I will thus argue that love is being represented by the game according to the first perspective but fear is present in the game and more essential to the game object following the second perspective. Consequently, the presence of fear becomes a requirement for the representation of love.

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Möring, Sebastian. forthcoming. "Simulated Metaphors of Love. How the Game The Marriage Applies Metaphors to Simulate a Love Relationship." In The Game Love Reader. Playing with Affection (working Title), edited by Jessica Enevold and Esther MacCullum-Stewart. Publisher pending.
———. forthcoming. "Distance and Fear: Defining the Play Space." In Ludotopia (working Title), edited by Espen Aarseth and Stephan Günzel, in revision process for a book under negotiation for a book proposal on space and computer games.
Sartre, Jean-Paul. 2003. Being and nothingness: an essay on phenomenological ontology. London: Routledge.

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Sebastian Möring has been a Ph.D. student at the Center for Computer Games Research at the IT University of Copenhagen since October 2010. His research interests include the logic and structure of computer games. For his Ph.D. project he currently works on computer games as metaphors. Sebastian holds a Master of Arts in media studies from the University of Potsdam and the University of Applied Sciences Potsdam, Germany, where he attended the master program of European Media Studies. His master thesis investigated the Heideggerian fear structure as a fundamental characteristic of competitive games. Prior to being a Ph.D. fellow he was a Research Assistant at the Digital Games Research Center (DIGAREC) at the University of Potsdam.

Felix Schröter, University of Hamburg
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My Avatar and Me. Toward a Cognitive Theory of Game Characters

Research on fictional characters has been of high importance for cognitive film studies since its dawn in the 1980s. Cognitive theory has been successfully applied to the modeling of character reception in literature and film (Eder 2008), for explaining emotional responses to film characters (Plantinga/Smith 1999), and for the analysis of narrative structures and character constellations (e.g. Grodal 1997). In contrast, video game characters have been largely neglected by cognitive theorists. In this paper I argue that cognitive theory can (1) help us understand how we experience video game characters and respond to them on a wide range of cognitive, affective and bodily levels, and (2) provide a theoretical framework for developing a conceptual model for the analysis of video game characters.

In order to develop a heuristic model of game character reception I draw on existing research on characters in other media as well as studies that apply cognitive psychology to video games in general (Grodal 2003, Frome, 2006, Arsenault/Perron 2008). It is argued that game characters can be experienced in at least three different 'modes': as fictional beings with certain 'diegetic' properties, as game pieces with certain ludic properties, and as representations of other players (referring to their function as avatars in the social space of a multiplayer game). In addition, different levels of information processing can be distinguished for each mode, ranging from the primary perception of images and sound to higher cognitions like the construction of mental models or aesthetic reflections on the character's presentation.

The proposed model does not only help to better understand different emotional responses to game characters but can also inform the development of a heuristic model of game character analysis. The last part of the paper discusses how such an analytical model could look like and how it can be applied to specific research questions.

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Felix Schröter is a Research Associate at the Media and Communication Institute of the University of Hamburg. He holds a Master's degree in media studies and is member of the Graduate School Media and Communication within the Research Center for Media and Communication at the University of Hamburg. From October 2010 until July 2011 he worked as a Junior Researcher on projects at the Hans Bredow Institute (Hamburg), especially on a project on the reception of moving images in converging media environments. His research interests include transmedial character theory, game studies, cognitive film studies and theories of media reception. His Ph.D. project is concerned with the reception and analysis of video game characters.

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Children's Characters in Video Games. Emotional Alignment and Emotional Triggers

Films are considered as the favorite site of emotions (cf. Münsterberg), films make you cry and laugh, they make you fear for the protagonists and hope for a happy ending. Also television formats such as the soap opera or the telenovela can be considered as emotion machines, offering their spectators a save area to experience otherwise menacing conditions and emotions. Films as television have developed conventionalized formal-aesthetic and narrative methods that evoke and trigger emotions from its audience. Close-ups on facial expressions are typically used to display the emotion of a character thus helping the audience to experience emotional closeness (cf. Eder) with them. One often employed emotional trigger is the use of children's characters to 'catch' the audience. The loss of a child, or the direct threat of loss in form of kidnapping or a natural catastrophe (e.g. *Airforce One*, *Flightplan*) is a common dramaturgical pinch to keep the audience at it.

Video games on the other hand are considered to facilitate first-person emotions (in contrast to witness emotions), thus relating to the interaction of the player and her agency to perform well (or bad). While first-person emotions might dominate during gameplay, the narrative embedment and the quest structure of a game allows forms of witness emotions. For instance, the use of children's characters in the horror genre (e.g. the grey children in SILENT HILL) can be considered as a conventionalized strategy to cause alienating or shocking effects. BIOSHOCK, on the other hand, serves as an example how children-like characters (the Little Sisters) function in a more sophisticated way to evoke not only first-person emotions but also witness emotions.

My aim is to elaborate on the dramaturgical functions of children's characters in video games by drawing on the examples of HEAVY RAIN (Quantic Dream, 2010) and THE WALKING DEAD (Telltale Games, 2012). While the two examples demonstrated the variety of possibilities of emotional character alignment in video games, they concurrently point to the fact that the medium matures with its audience: While the alienating shock effect of children-like characters in SILENT HILL induce tension and fear across all audiences, the parental sentiments in HEAVY RAIN address specifically a more mature audience.

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Susanne **Eichn**er is a Research Associate at the Department of Media Studies at the University of Film and Television "Konrad Wolf", Potsdam. In her Ph.D. project she conceptualizes agency as a mode of reception across different media. Her research focus is on reception aesthetics, popular serial culture, video games, and the integration of an industrial and institutional focus. She is editor of the anthology *Transnationale Serienkultur. Theorie, Ästhetik, Narration und Rezeption neuer Fernsehserien* (Wiesbaden 2013; together with Lothar Mikos and Rainer Winter) and co-author of *Die »Herr der Ringe«-Trilogie. Attraktion und Faszination eines populärkulturellen Phänomens* (UVK Verlags GmbH 2007).

Panel III: Games and Emotion II

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Being Killed by Rainbows: Displayed Violence, Difficulty,and Performance as Predictors for Postgame Emotions

Violent video games are still discussed to have an impact on human aggression including negative emotions after game-play. Especially first-person shooters are supposed to increase anger and frustration due to their violent content such as killing the avatars of other players. Recent research discusses further factors which might be related to emotional outcomes and cannot be ignored when deciding whether violent computer games do have negative effects or not. For instance, Adachi and Willoughby (2011) describe difficulty as one important variable which could influence the findings. Difficulty can be modified within the game but is still related to the expertise of the player resulting in a different game performance. The actual study aimed at investigating the impact of displayed violence, difficulty, and performance on post-game emotions. As video game stimulus, the first-person shooter TEAM FORTRESS 2 was modified to alter the difficulty and the displayed violence of the game. Participants (N = 90) played in one of four different conditions, with either high or low difficulty and high or low displayed violence. Performance in the game was assessed as predictor for post-game emotions. Emotions after playing the game were measured with the M-DAS questionnaire.

Results indicated that displayed violence did not have any influence on emotions. In contrast, difficulty was found to be a significant predictor for emotions. The high-difficulty version caused higher frustration while the low-difficulty version of the game caused higher enjoyment. In addition, the measurements for game performance were found to be significant predictors for emotional outcomes. While the number of enemies killed predicted mostly positive emotions (e.g., fun) but had no influence on negative emotions (e.g., shame), the opposite pattern for the number of own deaths was found. This indicates that active success in games is an important factor for positive emotional reactions and that passive failure leads to a negative emotional outcome. Results are discussed in terms of their implications for video games (still?) being accused to lead to mostly negative if not aggressive emotions.

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Julia Kneer has recently been appointed Assistant Professor in the Department of Media and Communication at Erasmus University Rotterdam. Before moving to Rotterdam, she worked as a postdoc researcher and lecturer at the University of Cologne, Department of Social and Media. She studied Psychology at Saarland University from 1996 to 2001 and received her Ph.D. in Social Psychology in May 2006. Her research focus lies on video games, especially how video games and players are perceived, as well as generation differences, and effects of video game. Further research interests include health communication, heavy metal music, music in movies, and social cognition.

Keynote Lecture: Games and Effects

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Keynote Lecture: The Video Game Player's Self on a Fantastic Ride. Social Cognition as Subjective Process and Objective Variable

The diverse perspectives of media studies and social (cognitive) psychology on the experience of video game play root, of course, in their divergent methodological histories. Media and film studies adhere to strong backgrounds in understanding and elaboration of detailed, rich individual reflections, for instance, of single game episodes or personal-subjective memories of one given player confronted with one given game. Social psychology (and, in its tradition, media psychology and communication science alike), in contrast, refer to objective, measurable phenomena and try to reduce the information processing that occurs in players to relatively few variables that can be measured, explained statistically, and demonstrated as cause or effect of other gaming-related variables.

Attempts to bridge these entirely different perspectives on the same research object have been made outside of game studies. The case of understanding cognition and emotion in gamers offers a new opportunity to practice such trans-disciplinary harmonization. The keynote will reflect on the journey that a player's self-perception or subjective identity goes through when s/he becomes involved in a great video game. From literature studies, the concept of identification has been taken to explicate this journey. Shifts in self-perception are both highly subjective (as they are bound to personal knowledge and biography) and can be measured objectively. What happens to a player's sense of self can thus be taken as a useful topic for harmonizing diverse disciplinary perspectives in game studies and explicate a theoretical 'truth' in the midst between what is a generalizable principle of psychological game effects and what is a unique, personal, entirely subjective play experience.

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Christoph Klimmt is Professor for Mass Communication at the Hanover University of Music, Drama and Media. His works include *Playing Computer Games as Action: Dimensions and Determinants of the Experience of Interactive Entertainment* (2006) as well as research on use and effects of video games and other media.

Panel IV: Games and Effects

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Intrinsic Motivation and the Video Game Experience. On the Complex Interaction of the Use of Video Games and Psychological Well-Being

Current research has demonstrated the ability of video games to satisfy a set of intrinsic needs that are crucial for psychological well-being and vitality. Video games provide ample opportunities to satisfy our need for competence by mastering the numerous challenges within the game environment. Games make us feel self-determined and autonomous while we explore the game-world and control the progress of the narrative though our own actions and choices. Furthermore, video games provide us with opportunities for social interaction with other players, help us feel connected, and satisfy our need for relatedness. The satisfaction of the need for competence, autonomy, and relatedness is a strong predictor for selective exposure to games and a key driver of game enjoyment, characterizing intrinsic need satisfaction as a crucial motivation to engage in game play. Beyond providing a better understanding of the motivations to play and the appeal of games, this needs-based approach can broaden our perspective on video games by demonstrating their potential to foster well-being and vitality. However, in contrast to the negative cognitive and emotional effects of video game play, such as increased aggression or video game addiction, that have received broad attention in media psychology, systematic research on the positive effects of games on psychological well-being is still in its infancy. The presentation will provide an overview of existing research both on the role of on intrinsic need satisfaction for the appeal of video games as well as the effects video game play on psychological well-being. The presentation will conclude with a preliminary discussion of potential moderator and mediator processes that may foster or hinder the positive well-being potential of games and aim at initiating discussion on an agenda for future research on the complex interplay of video games and well-being.

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Leonard Reinecke is an Assistant Professor at the Department of Communication at Johannes Gutenberg University Mainz. His research focuses on the uses and effects of entertaining media and online communication. His recent work addresses the role of intrinsic need satisfaction in media enjoyment and the effects of the use of entertaining media on recovery processes, vitality, and well-being.

Panel IV: Games and Effects

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Spatial Mapping of Input and Output Spaces in Video Games

Contemporary video games allow for intense experiences with their possibilities to provide visually authentic, life-like 3D environments and interaction with the game world itself and other players. Additionally, stereoscopic representation can be used to further enhance this experience. Since the release of the Nintendo Wii in 2005 and later Sony Move as well as Microsoft Kinect (both 2010), modern console games use motion control in addition to the classic gamepad. Both the use of these natural user interfaces (NUIs) and stereoscopic representation determine the user experience (UX) with the system. The rise in popularity of these technologies has led to high expectations regarding an added value in entertainment, immersion, and excitement—especially of 3D games—as both technologies are employed to establish a better sense of spatiality in games and allow the players to immerse themselves in the game world. For commercial success of these technologies, the resulting UX has to be enjoyable and strain-free. Because this is not always the case, we have to understand the factors underlying the UX of stereoscopic entertainment media and natural user interfaces to improve it further. Previous research primarily concentrated on direct effects of stereoscopic representation without considering interaction processes between input and output modalities. More specific, UX should only be enriched, if games enable users to meaningfully map mental representations of input (NUIs) and output (stereoscopic representation) space. Based on the process model of spatial presence formation (Wirth et al., 2007), mental models (more precisely: spatial situation models; SSM) are constructed during the reception process. The quality of a player's SSM determines the resulting UX. The talk will discuss the spatial mapping of input and output spaces in stereoscopic video games based on the concept of spatial situation models.

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Daniel Pietschmann is Junior Lecturer at the Institute for Media Research, Chair of Media Psychology, Chemnitz University of Technology and Research Associate at the graduate program *Crossworlds - Connecting virtual and real social worlds* of the German Science Foundation, Chemnitz University of Technology. He has received a Master's degree in media communication in 2008 and is currently working on his dissertation thesis *Effects of Sensomotoric Interfaces on User Experience.* His research interests include psychological and physical aspects of experiencing digital media, virtual reality environments, computer game studies, TV studies and Transmedia Storytelling.