

Research
Interests

Development and application of computational models of affective behavior of users and synthetic characters, at different levels of granularity, employing novel methods and devices for interaction, for games and interactive applications. Implementations in software agents for interactive entertainment, for a narrative purpose, and the study of the implications of affective phenomena for meaningful interaction in general.

Areas

Affective Computing | Human-Computer Interaction | New Media | Game Design | Intelligent Software Agents | AI and Interactive Entertainment | Pedagogical Applications | Multi-Agent-Based Simulation | Interactive Narrative | User Modeling | Privacy

Employment

2013 – Drexel University, Philadelphia, PA
USA

Assistant Professor, Digital Media Department, Game Design & Production,
Antoinette Westphal College of Media Arts & Design

2004 – 2013 Austrian Research Institute for AI, Vienna
Austria

Researcher, several EU-funded as well as Austrian research projects (see section *Projects*),
member of the research group *"Intelligent Software Agents and New Media"*

2001 Austrian Research Institute for AI, Vienna Austria

Researcher, project *"Animated Agents for Job-application training"*

Education

2004 – 2009 Vienna University of Technology & University of Vienna Austria

Ph.D. in Computer Science, with highest distinction (sub auspiciis, **top 1%**, see section *Awards*):
"Behaviour Coordination for Models of Affective Behaviour"

Further studies in:

- Philosophy
- Media Studies

2000 Lancaster University UK

Study Exchange, 6 months as part of the European research project DesArte (see section *Projects*)

1997 – 2004 Vienna University of Technology & University of Vienna Austria

M.Sc. in Computer Science, with **highest distinction**, focus on Artificial Intelligence:
"Affective Acting: An Appraisal-based Architecture for Agents as Actors"

Further Studies in:

- Philosophy
- New Media Design and Engineering (individually composed study)
- Media Studies

Teaching

2013 – Drexel University, Philadelphia
USA

Master of Science / PhD in Digital Media:

- DIGM 501: New Media: History, Theory and Methods
- DIGM 530/531: Advanced Game Design 1 & 2
- DIGM 540: New Media Project
- DIGM T580: Artificial Intelligence for Gaming
- DIGM 680: Thesis Development
- DIGM 710: Digital Media Research Methods I
- DIGM 998: Digital Media PhD Seminar
- Supervision of theses

Bachelor of Science in Game Design & Production:

- GMAP 231: Scripting for Game Design
- GMAP 260: Overview of Computer Gaming
- GMAP 348 / CS 347: Experimental Games
- GMAP 368 / CS 368: Artificial Intelligence in Gaming
- GMAP 465: Senior Project (for both Digital Media and Computer Science)

2007 – 2013 University of Vienna & Medical University Vienna
Austria

Middle European interdisciplinary Master's Program in Cognitive Science:

- Lecture with exercises on *"Models of Personality and Emotions"* (3 ECTS),
- Seminar on *"Models of Personality and Emotions"* (7 ECTS),
- Project-Seminar in Cognitive Science (5 ECTS),
- Supervision of theses

2011 Summerschool on Interactive Story Creation Germany
Lectures on *"Behavior Control"* and *"Character Assembly"*, organized by IRIS (see *Projects*)

2004 – 2006 Vienna University of Technology & University of Vienna Austria
Guest lectures for a course on *"Artificial Intelligence - The relation between art and AI"*

1998 – 2001 Vienna University of Technology Austria
Teaching Assistant for the courses:
Introduction to Programming, Systems Programming, Computer Networks

Awards

2016 | **ExCITe Faculty Fellow** | at Drexel University's ExCITe center | **recipient of the inaugural fellowship**

2009 | **Promotio sub auspiciis Praesidentis rei publicae** | awarded for passing all final exams with highest distinction starting from secondary education (age 14) | **top 1%** of all PhDs awarded that year, both in CS and across all disciplines in Austria

2009 | Ph.D. Thesis | **Prize of Appreciation** | awarded by the Austrian Federal Ministry of Science and Research for excellent study achievements | **top 1%** of all PhDs awarded that year

2008 | **High Potential Program** | of the Vienna University of Technology (TUtheTOP) | selected for consistently excellent study achievements

2004 | M.Sc. Thesis | **Prize of Recognition** | awarded by the Austrian Society for AI | based on originality, quality and relevance | on average **2 recipients every 5 years**

2002 | **Scholarship of Merit** | of the Vienna University of Technology | awarded for excellent study achievements

Projects

2017 – 2019 | NSF SICIT | **NSF Project "Supporting Science and Engineering Identity Development in Immersive Interactive Technologies"** | Principal Investigator (\$560k)

2017 – 2019 | NSF Radio Wars | **NSF Project "SaTC: EDU: Software Defined Radio Wars for Cybersecurity and Information Assurance Education"** | Co-Principal Investigator (\$300k)

2017 – 2018 | DARE GSS | **Drexel Area of Research Excellence in Gaming, Simulation and Society** | Principal Investigator in the excellence area (one of five) at Drexel University

2016 – 2017 | ExCITe Faculty Fellowship | **PerCubed - The Performance and Perception of Personality** | Expressive and Creative Interaction Technologies (ExCITe) Center at Drexel University

2016 – 2017 | War of the Worlds | **War of the Worlds – Philadelphia** | A city-wide interactive art/ game experience to bring neighborhoods together | William Penn Foundation grant | lead developer

2015 – 2016 | VR Puppeteering | **Expressivity in VR Through Full-Body Interaction: A Principled Approach to Studying Personality** | Creativity Fund of the Antoinette Westphal College of Media Arts and Design

2010 – 2014 | GALA | **Game and Learning Alliance** | EU Network of Excellence for Serious Games | IST FP7 258169 | associated partner | <http://www.galanoe.eu/>

2009 – 2013 | CYBEREMOTIONS | **Collective Emotions in Cyberspace** | EU Large Scale Integrating Project | IST FP7 231323 | project cost 4.6M€ | 9 European partners | Role: Agent-based models of emotion dynamics and interactive tools for acquisition and influencing of affective states in e-communities | <http://www.cyberemotions.eu/>

2009 – 2011 | IRIS | **Integrating Research in Interactive Storytelling** | EU Network of Excellence | IST FP7 231824 | project cost 3.2M€ | 10 European partners | Role: Computational behavioral models of emotion and personality for hybrid intelligent virtual actors and authoring | <http://iris.scm.tees.ac.uk/>

2009 – 2011 | SERA | **Social Engagement with Robots and Agents** | EU Collaborative Project | IST FP7 231868 | project cost 1.5M€ | 4 European partners | Role: Responsible for showcase work package, verbally interactive robots and agents for assistive technologies | <http://www.project-sera.eu/>

2007 – 2008 | VirtualButler | **Prerequisites of the Development of a Personalised Virtual Butler** | National Austrian Project

2006 – 2008 | L2C | **Learning to Collaborate** | EU Collaborative Project | IST-2005-027288 | project cost 3M€ | 13 European partners | Role: Consulting regarding modeling of emotion and trust for interactive simulations and serious games

2006 – 2008 | RASCALLI | **Responsive Artificial Situated Cognitive Agents that Live and Learn on the Internet** | EU Collaborative Project | IST-2004-27596 | project cost 2.5M€ | 6 European partners | Role: Integration of appraisal-based agents into a cognitive architecture | <http://www.ofai.at/rascalli/>

2006 – 2008 | SELP | **Advanced Knowledge Technologies: Grounding, Fusion, Applications** | National Austrian Project

2006 – 2008 | NeuroticAgents | **Increasing the Fascination of Synthetic Actors in Computer Games by Developing 'Neurotic' Personality Agents** | National Austrian Project

2006 – 2010 | COAST | **Competence Network for Advanced Speech Technologies** | National Austrian Project

2004 – 2007 | HUMAINE | **Human-Machine Interaction Network on Emotion** | EU Network of Excellence | IST-2002-507422 | project cost 12.7M€ | 35 European partners | Role: Modeling of emotion in cognition and action for intelligent agents and emotion-oriented systems | <http://emotion-research.net/projects/humaine>

2003 – 2004 | eBusiness | **Artificial Intelligence Methods for eBusiness** | National Austrian Project

1999 – 2001 | DesArte | **The computer supported design of artefacts and spaces in architecture and landscape architecture** | EU ESPIRIT-LTR Project | LTR 31.870 | Six months study exchange at Lancaster University | Role: Design and development of asset retrieval mechanisms based on image features such as color for a 3D asset storage

Journal articles:

JA.8 | Skowron M., **Rank S.**, Świdarska A., Küster D., Kappas A. (2014): Applying a Text-Based Affective Dialogue System in Psychological Research: Case Studies on the Effects of System Behavior, Interaction Context and Social Exclusion. *Cognitive Computation* 6(4):872-891. doi:10.1007/s12559-014-9271-2

JA.7 | **Rank S.**, Hoffmann S., Struck H.-G., Spierling U., Mayr S., Petta P. (2014): Authoring vs. Configuring: Affective Agents for Interactive Storytelling. *Applied Artificial Intelligence* 28(6):629-645. doi:10.1080/08839514.2014.923176

JA.6 | Skowron M., Theunis M., **Rank S.**, Kappas A. (2013): Affect and Social Processes in Online Communication – Experiments with an Affective Dialog System. *IEEE Transactions on Affective Computing* 4(3):267-279. doi:10.1109/T-AFFC.2013.16

JA.5 | **Rank S.**, Skowron M., Garcia D. (2012): Dyads to Groups: Modeling Interactions with Affective Dialog Systems. *International Journal of Computational Linguistics Research* 4(1):22-37.

JA.4 | **Rank S.** (2011): Behaviour Coordination for Models of Affective Behaviour. *Künstliche Intelligenz* 25(3):265-268. doi:10.1007/s13218-011-0111-1

JA.3 | Heylen D., op den Akker R., ter Maat M., Petta P., **Rank S.**, Reidsma D., Zwiers J. (2011): On the Nature of Engineering Social Artificial Companions. *Applied Artificial Intelligence* 25(6):549-574. doi:10.1080/08839514.2011.587156

JA.2 | **Rank S.** (2005): Toward Reusable Roleplayers Using an Appraisal-based Architecture. In Payr S. (ed.): *Educational Agents and (e-)Learning*, *Applied Artificial Intelligence* 19(3-4):313-340. doi:10.1080/08839510590910138

JA.1 | Büscher M., Friedlaender V., Hodgson E., **Rank S.**, Shapiro D. (2000): Designs on objects: imaginative practice, aesthetic categorisation, and the design of multimedia archiving support. *Digital Creativity* 11(3):161-172. doi:10.1076/digc.11.3.161.8870

Book Chapters:

BC.4 | Skowron M., **Rank S.**, Garcia D., Hołyst J.A. (2017): Zooming in: Studying Collective Emotions with Interactive Affective Systems. In Hołyst J.A. (ed.): *Cyberemotions - Collective Emotions in Cyberspace*, Springer International Publishing, pp.279-304. doi:10.1007/978-3-319-43639-5_14

BC.3 | Skowron M., **Rank S.** (2014): Interacting with Collective Emotions in e-Communities. In Von Scheve C., Salmela M. (eds.): *Collective Emotions*, Oxford University Press, chapter 27, pp.407-421. doi:10.1093/acprof:oso/9780199659180.003.0027

BC.2 | **Rank S.** (2013): What Issue Should Your Virtual Butler Solve Next? In Trappl R. (ed.): *Your Virtual Butler: The Making of*, Springer Wien/New York, pp.179-186. doi:10.1007/978-3-642-37346-6_12

BC.1 | **Rank S.**, Petta P., Trappl R. (2006): Features of emotional planning in software agents. In Della Riccia G., Dubois D., Kruse R., Lenz H.-J. (eds.): *Decision Theory and Multi-Agent Planning*, Springer Wien/New York, pp.185-198. doi:10.1007/3-211-38167-8_11

Peer-reviewed conference papers:

CP.42 | Chen K., **Rank S.** (2018): Towards Design Principles for Humor in Interactive Emergent Narrative, DIGRA 2018: The 11th Digital Games Research Association Conference. Turin, Italy, July 25-28, 2018.

CP.41 | Chen K., **Rank S.** (2018): Presence and eudaimonic appreciation in interactive narrative.

PRESENCE 2018, 18th conference of the International Society for Presence Research (ISPR), Prague, Czech Republic, May 21-22, 2018

CP.40 | Jalbert J., **Rank S.** (2016): Exit 53: Physiological Data for Improving Non-Player Character Interaction. In Frank Nack, Andrew S. Gordon (eds.): *Interactive Storytelling: 9th International Conference on Interactive Digital Storytelling, ICIDS 2016*, Los Angeles, CA, USA, November 15-18, 2016, Proceedings. Springer International Publishing, pp.25-36. doi:10.1007/978-3-319-48279-8_3

CP.39 | Kohn J., **Rank S.** (2016): You're the Camera! Physical Movements For Transitioning Between Environments in VR. In *Proceedings ACE 2016, Proceedings of the 13th International Conference on Advances in Computer Entertainment Technology*, Article No. 5. Osaka, Japan, November 09 - 12, 2016 ACM. doi:10.1145/3001773.3001824.

CP.38 | Mekler E.D., **Rank S.**, Steinemann S.T., Birk M.V., Iacovides I. (2016): Designing for Emotional Complexity in Games: The Interplay of Positive and Negative Affect (Workshop). In *CHI PLAY Companion '16 Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts*. ACM New York NY USA, Pages 367-371. doi:10.1145/2968120.2968126

CP.37 | Nguyen A., **Rank S.** (2016): Spatial Involvement in Training Mental Rotation with Minecraft. In *CHI PLAY Companion '16 Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts*. ACM New York NY USA, Pages 245-252. doi:10.1145/2968120.2987747

CP.36 | Day T., Gray R., Liu W., **Rank S.**, Dean P., Chen S., Garzon J. (2016): Torchless: Asymmetry in a Shared Screen Dungeon Crawler. In *CHI PLAY Companion '16 Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts*. ACM New York NY USA, Pages 47-53. doi:10.1145/2968120.2968123

CP.35 | Vosmeer M., Ferri G., Schouten B., **Rank S.** (2016): Changing Roles in Gaming: Twitch and new gaming audiences. In *DiGRA/FDG 2016 Abstract Proceedings of the First International Joint Conference of DiGRA and FDG*, Dundee Scotland. Play studies, interaction and player experience track. Digital Games Research Association and Society for the Advancement of the Science of Digital Games, ISSN 2342-9666. url:http://www.digra.org/wp-content/uploads/digital-library/paper_101.pdf

CP.34 | Jalbert J., **Rank S.** (2016): Improving Interaction with Non-Player Characters Through Physiological Data. In *DiGRA/FDG 2016 Abstract Proceedings of the First International Joint Conference of DiGRA and FDG*, Dundee Scotland. Game design track. Digital Games Research Association and Society for the Advancement of the Science of Digital Games, ISSN 2342-9666. url:http://www.digra.org/wp-content/uploads/digital-library/paper_363.pdf

CP.33 | Kohn J., **Rank S.** (2016): Evaluating Physical Movement as Trigger for Transitioning Between Environments in Virtual Reality. In *CHI EA '16 Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems* May 7-12, 2016, San Jose, CA, USA. ACM Press, pp.1973-1979. doi:10.1145/2851581.2892506

CP.32 | Nguyen A., **Rank S.** (2016): Studying the Impact of Spatial Involvement on Training Mental Rotation with Minecraft. In *CHI EA '16 Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, May 7-12, 2016, San Jose, CA, USA. ACM Press, pp.1966-1972. doi:10.1145/2851581.2892423

CP.31 | **Rank S.** (2015): Towards Affective Trajectories in Games with Physiological Signals. In Max V. Birk, Ioanna Iacovides, Daniel Johnson, Regan L. Mandryk (Eds.): *CHI PLAY 2015 Workshop on The False Dichotomy between Positive and Negative Affect in Game Play*, London UK, Oct 14th 2015. https://falsedichotomy2015.files.wordpress.com/2015/09/chiplay2015dichotomy_paper_1.pdf

CP.30 | Wu W., **Rank S.** (2015): Story Immersion in a Gesture-Based Audio-Only Game. In Henrik

Schoenau-Fog, Luis Emilio Bruni, Sandy Louchart, Sarune Baceviciute (Eds.): *Interactive Storytelling: 8th International Conference on Interactive Digital Storytelling, ICIDS 2015, Copenhagen Denmark, November 30 - December 4, 2015, Proceedings*, Springer, LNCS 9445, pp. 223-234. doi:10.1007/978-3-319-27036-4_21

CP.29 | Wu W., **Rank S.** (2015): Audio Feedback Design Principles for Hand Gestures in Audio-Only Games. In George Kalliris, Charalampos Dimoulas (Eds.): *Proceedings of the Audio Mostly 2015 on Interaction With Sound, Conference, AM'15, Thessaloniki, Greece, October 7-9, 2015*, ACM New York, article no. 38. doi:10.1145/2814895.2814925

CP.28 | Baranoski J., Kleinman E., Wang Z., Tucker M., Ahnert J., Schell J., Doshi R., **Rank S.**, Zhu J. (2015): Matsya: A Cultural Game of Flow and Balance. In Anna L. Cox, Paul Cairns, Regina Bernhaupt, Lennart Nacke (Eds.): *Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play, CHIPLAY'15, London UK, October 3-7, 2015*, ACM New York, pp. 751-754. doi:10.1145/2793107.2810272

CP.27 | Wu W., **Rank S.** (2015): Responsive Environmental Diegetic Audio Feedback for Hand Gestures in Audio-Only Games. In Anna L. Cox, Paul Cairns, Regina Bernhaupt, Lennart Nacke (Eds.): *Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play, CHIPLAY'15, London UK, October 3-7, 2015*, ACM New York, pp. 739-744. doi:10.1145/2793107.2810336

CP.26 | **Rank S.**, Lu C. (2015): PhysSigTK: Enabling Engagement Experiments with Physiological Signals for Game Design. In Roddy Cowie, Qiang Ji, Jianhua Tao, Jonathan Gratch, Björn Schuller (Eds.): *Affective Computing and Intelligent Interaction (ACII), 2015 International Conference on, 21-24 Sept. 2015, Xian China*, IEEE, First International Workshop on ENgagement in HumAN Computer IntEraction (ENHANCE 2015) pp. 968-969. doi:10.1109/ACII.2015.7344692

CP.25 | Wu W., **Rank S.** (2015): Spatial Audio Feedback for Hand Gestures in Games. In Amy Banic, Evan Suma, Frank Steinicke, Wolfgang Stuerzlinger (Eds.): *Proceedings of the 3rd ACM Symposium on Spatial User Interaction, SUI'15, Los Angeles CA USA, August 8-9, 2015*, ACM New York, pp. 135. doi:10.1145/2788940.2794363

CP.24 | Xue B., **Rank S.** (2014): Three Is a Magic Number: Virtual Cameras for Dynamic Triadic Game Dialogue. In Alex Mitchell, Clara Fernández-Vara, David Thue (Eds.): *Interactive Storytelling, 7th International Conference on Interactive Digital Storytelling, ICIDS 2014, Singapore, Singapore, November 3-6, 2014, Proceedings*, Springer, LNCS 8832, pp. 216-219.

CP.23 | Lee J., **Rank S.** (2014): Towards Realistic Female Avatar Creation. In Timothy Bickmore, Stacy Marsella, Candace Sidner (Eds.): *Intelligent Virtual Agents, 14th International Conference, IVA 2014, Boston, MA, USA, August 27-29, 2014. Proceedings*, Springer, LNCS 8637, pp.260-263.

CP.22 | Xue B., **Rank S.** (2014): Capturing Triadic Conversations - A Visual Director System for Dynamic Interactive Narratives. In Jichen Zhu, Ian Horswill, Noah Wardrip-Fruin (Eds.): *Seventh workshop in the Intelligent Narrative Technologies (INT-7), Proceedings*, AAAI Press.

CP.21 | **Rank S.**, Petta P. (2012): Backstory Authoring for Affective Agents. In David Oyarzun, Federico Peinado, R. Michael Young, Ane Elizalde, Gonzalo Méndez (Eds.): *Interactive Storytelling, 5th International Conference, ICIDS 2012, San Sebastián, Spain, November 12-15, 2012. Proceedings*, Springer, LNCS 7648, pp.144-149.

CP.20 | Galik M., **Rank S.** (2012): Modeling the emotional trajectories of individuals in an online chat environment. In Ingo J. Timm, Christian Guttman (Eds.): *Multiagent System Technologies, 10th German Conference, MATES 2012, Trier, Germany, October 10-12, 2012. Proceedings*, Springer, LNCS 7598, pp.96-105.

CP.19 | **Rank S.**, Hoffmann S., Struck H.-G., Spierling U., Petta P. (2012): Creativity in Configuring Affective Agents for Interactive Storytelling. In Mary Lou Maher, Kristian Hammond, Alison Pease, Rafael Pérez y Pérez, Dan Ventura and Geraint Wiggins (eds.): *Proceedings of the Third*

International Conference on Computational Creativity, Dublin Ireland, May 2012, pp.165-169.

CP.18 | Skowron M., **Rank S.** (2012): Affect Listeners - From dyads to group interactions with affective dialog systems. In: *AISB/IACAP World Congress 2012 - Alan Turing 2012, Symposium on Linguistic and Cognitive Approaches To Dialog Agents - LaCATODA 2012*, Birmingham UK, June 2-6 2012.

CP.17 | Skowron M., Pirker H., **Rank S.**, Paltoglou G., Ahn J., Gobron S. (2011): No peanuts! Affective Cues for the Virtual Bartender. In: *Proceedings of the Twenty-Fourth International FLAIRS Conference*, AAAI Publications, pp.117-122.

CP.16 | Skowron M., **Rank S.**, Theunis M., Sienkiewicz J. (2011): The good, the bad and the neutral: affective profile in dialog system-user communication. In: *Proceedings of the fourth bi-annual Affective Computing and Intelligent Interaction Conference (ACII 2011)*, LNCS, Springer, Heidelberg, pp.337-346.

CP.15 | Gobron S., Ahn J., Silvestre Q., Thalmann D., **Rank S.**, Skowron M., Paltoglou G., Thelwall M. (2011): An Interdisciplinary VR-architecture for 3D chatting with non-verbal communication. In Coquillart S., Steed A., Welch G. (eds.): *Joint Virtual Reality Conference of EuroVR (EGVE 2011)*, Eurographics Association, pp.87-94.

CP.14 | Skowron M., Theunis M., **Rank S.**, Borowiec A. (2011): Effect of affective profile on communication patterns and affective expressions in interactions with a dialog system. In: *Proceedings of the fourth bi-annual Affective Computing and Intelligent Interaction Conference (ACII 2011)*, LNCS, Springer, Heidelberg, pp.347-356.

CP.13 | Szilas N., Boggini T., Axelrad M., Petta P., **Rank S.** (2011): Specification of an Open Architecture for Interactive Storytelling. In Si M. et al. (eds.), *Interactive Storytelling, Fourth International Conference on Interactive Digital Storytelling, ICIDS 2011*, November 28 - December 1 2011, Vancouver BC Canada. Proceedings, Springer Berlin/Heidelberg, pp.330-333.

CP.12 | Ahn J., Borowiec A., Buckley K., Cai D., Chmiel A., Czaplicka A., Dabrowski G., Garas A., Garcia D., Gobron S., Hillmann R., Holyst J., Kappas A., Küster D., Mitrovich M., Paltoglou G., Pirker H., **Rank S.**, Schweitzer F., Sienkiewicz J., Skowron M., Sobkowicz P., Thalmann D., Thelwall M., Theunis M., Trier M., Tsankova E., Weron P. (2011): CYBEREMOTIONS – Collective Emotions in Cyberspace. *Proceedings of the 2nd European Future Technologies Conference and Exhibition 2011 - FET 11*, Procedia Computer Science (7).

CP.11 | **Rank S.** (2010): Docking Agent-based Simulation of Collective Emotion to Equation-based Models and Interactive Agents, In Oeren T., Yilmaz L. (eds.): *Proceedings of Agent-Directed Simulation Symposium at the 2010 Spring Simulation Conference*, SpringSim 2010, Orlando FL USA, The Society for Modeling & Simulation International (SCS), pp.82-89.

CP.10 | **Rank S.** (2010): Designing an Agent-based Simulation of Collective Emotions, In Trappl R. (ed.): *Cybernetics and Systems 2010 - Proceedings of the Twentieth Meeting on Cybernetics and Systems Research*, Austrian Society for Cybernetic Studies, Vienna, pp.521-526.

CP.9 | Skowron M., Pirker H., **Rank S.** (2009): CYBEREMOTIONS: Interactive computer tools for acquiring data on individual and collective emotions of online communities, *Symposium "CYBEREMOTIONS: Collective emotions in cyberspace pose challenges to emotion research and theory" at ISRE 2009*, Leuven, Belgium, August 6-8.

CP.8 | **Rank S.**, Petta P. (2007): From ActAffAct to BehBehBeh: Increasing Affective Detail in a Story-World. In Cavazza M., Donikian S. (eds.), *Virtual Storytelling: Fourth International Conference (ICVS 2007)*, St.Malo, France, EU, December 2007. Proceedings, Springer-Verlag Berlin Heidelberg, pp.206-209.

CP.7 | **Rank S.** (2007): Building a computational model of emotion based on parallel processes and resource management. In Cowie R., Rosis F.de (eds.), *Proc. of the Doctoral Consortium, 2nd*

International Conference on Affective Computing and Intelligent Interaction, September 12-14, 2007, Lisbon, Portugal, pp.102-109.

CP.6 | **Rank S.**, Petta P. (2007): Basing artificial emotion on process and resource management. In Paiva A. et al. (eds.), *Proc. of the 2nd International Conference on Affective Computing and Intelligent Interaction*, September 12-14, 2007, Lisbon, Portugal, Springer-Verlag Berlin Heidelberg, pp.350-361.

CP.5 | Hermann C., Melcher H., **Rank S.**, Trapp R. (2007): Neuroticism - A Competitive Advantage (Also) for IVAs? In Pelachaud C. et al. (eds.), *Intelligent Virtual Agents*, Springer, Berlin/Heidelberg/ New York, pp.64-71.

CP.4 | **Rank S.**, Petta P. (2006): Comparability is Key to Assess Affective Architectures. In Trapp R. (ed.), *Cybernetics and Systems 2006*, Austrian Society for Cybernetic Studies, Vienna, pp.643-648.

CP.3 | **Rank S.**, Petta P. (2005): Appraisal for a Character-based Story-World. In Panayiotopoulos T. et al. (eds.), *Intelligent Virtual Agents, 5th International Working Conference, IVA 2005*, Kos, Greece, September 2005, Proc., Springer Berlin Heidelberg, pp.495-496.

CP.2 | **Rank S.**, Anjos P.L., Petta P., Aylett R. (2005): What is In an Affective Architecture for Situated Agents? In Canamero L. (ed.): *Humaine Deliverable D7a: WP7 Workshop Proceedings*, King's College London UK EU, July 4-5.

CP.1 | **Rank S.**, Petta P. (2005): Motivating Dramatic Interactions. In *Agents that Want and Like: Motivational and Emotional Roots of Cognition and Action, Proc. of the AISB05 Symposium*, April 12-15, Univ. of Hertfordshire, Hatfield, UK, pp.102-107.

Theses:

TH.2 | **Rank S.** (2009): *Behaviour Coordination for Models of Affective Behaviour*. PhD Thesis, Vienna University of Technology, carried out at the Austrian Research Institute for Artificial Intelligence (OFAI).

TH.1 | **Rank S.** (2004): *Affective Acting: An Appraisal-based Architecture for Agents as Actors*, Master's Thesis (Diplomarbeit in Informatik), Vienna University of Technology, carried out at the Institute for Medical Cybernetics and Artificial Intelligence, University of Vienna.

Talks and Demos

TD.8 | **Rank S.** (April 2013): Invited Talk *Computational Affect in Interactive Media*, Center for Human Modeling and Simulation, University of Pennsylvania, Philadelphia PA USA.

TD.7 | **Rank S.** (April 2013): Invited Talk *Computational Affect in Games*, Digital Media Program, Drexel University, Philadelphia PA USA.

TD.6 | Skowron M., **Rank S.**, Theunis M. (2012): *Affect Listeners @CyberEmotions*, COSI-ICT: Action for the Science of Complex Systems and Socially Intelligent ICT, Brussels Belgium.

TD.5 | Skowron M., **Rank S.**, (2011): *CyberEmotions: the good, the bad, the neutral - effect of an affective profile in dialog system-user online conversations*, Emotions in Cyberspace - Models and Empirical Approaches at the International Society for Research on Emotion conference, Kyoto Japan.

TD.4 | Chmiel A., Skowron M., **Rank S.** (2011): Affect Listeners demonstration: Mid-term Flagship Conference, 24-25 Nov, Warsaw Poland.

TD.3 | Skowron M., Chmiel A., **Rank S.** (2011): CyberEmotions project exhibition and Affect Listeners demonstration: Innovation Convention 2011. Polish Research Projects - Under the Patronage of the Polish Presidency, 5-6 Dec, Brussels Belgium.

TD.2 | **Rank S.** (2011): Verhaltenssteuerung und Emotion in Games. Presentation at: *researching*

games 2011, 24. to 25. September, Kreativfabrik Wiesbaden Germany.

TD.1 | **Rank S.**, Petta P. (2006): *Implications of Embodiment for Autonomous Personality Agents*. Presentation at the Young Researcher's session of the 3rd Humaine Summer School, September 22-28, 2006, InfoMus Lab - DIST - University of Genova, Italy.

Press Coverage

2016 | Interview | On the occasion of being named Faculty Fellow of the Expressive and Creative Interaction Technologies (ExCITe) Center, on ExCITe podcast, <http://drexel.edu/excite/news-events/ExCITeCast/podcasts/2016/November/> .

2010 | Interview | Research projects at OFAI, on the occasion of radical policy changes for research funding in Austria, on Radio FM4, <http://fm4.orf.at/stories/1668077/> (German).

2009 | Interview | Avatars like you and me, on current projects at OFAI, on derstandard.at <http://derstandard.at/1259281994075/Avatare-wie-du-und-ich> (German).

2009 | Press Article | Promotio sub auspiciis Praesidentis rei publicae, on derstandard.at (German).

2007 | Interview | Project Neurotic Bots for Game AI, on Radio FM4 (German).

2007 | Press Article | Project "Neurotic Bots for Game AI", on newscientist <http://www.newscientist.com/blog/technology/2007/10/neurotic-software-is-top-gamer.html>

Professional Activities

Conference and Workshop Organization:

2016 | The False Focus on Isolated and Positive Affect in Game Play, Workshop @ CHIPlay Conference 2016 | Co-chair

2012 | Sharing Interactive Digital Storytelling Technologies II (SIDST II) @ International Conference on Interactive Digital Storytelling, ICIDS 2012 | Co-chair

2012 | CyberEmotions - Collective Emotions in Cyberspace: Vienna Workshop | Co-chair

Program Committees / Reviewer:

IEEE Transactions on Affective Computing | ACM Transactions on Computer-Human Interaction | Cybernetics and Systems | Applied Artificial Intelligence | Behaviour and Information Technology | International Journal of Human-Computer Studies | Entertainment Computing | Cognitive Systems Research | Future Internet | Künstliche Intelligenz | Journal of Autonomous Agents and Multi-Agent Systems | ACM CHI Conference on Human Factors in Computing Systems | Int. Joint Conf. on Autonomous Agents and Multi-Agent Systems | Int. Joint Conf. on Artificial Intelligence | Int. Conf. on Affective Computing and Intelligent Interaction | Int. Conf. on Intelligent Virtual Agents | Intelligent Narrative Technologies | European Meeting of Cybernetics and Systems Research | European Conference on Artificial Intelligence

Other Activities:

Member of the Executive Board | Association for the Advancement of Affective Computing (formerly the Humaine Association) | <http://emotion-research.net/>

Portal Editor and Member of the Editorial Board | Web-Portal of the Association for the Advancement of Affective Computing (formerly the Humaine Association) | <http://emotion-research.net/>

Mentor at the Doctoral Consortium of the 10th German Conference on Multiagent System Technologies, MATES 2012

Member of the Cognitive Science Research Platform at the University of Vienna

European Business Competence* License (EBC*L A) and
Training in effective communication and presentation

Contributions to Open Source software projects:

python | gentoo | twisted | docutils | zwiki | inkscape | jedit | python-ogre | pylint | pywin32 |
dejavu-fonts | wax

Memberships

Higher Education Video Game Alliance (HEVGA) | Association for Computing Machinery (ACM) |
Association for the Advancement of Artificial Intelligence (AAAI) | Association for the Advancement
of Affective Computing (AAAC, formerly the Humaine Association) | Austrian Society for AI (ÖGAI) |
Austrian Society for Cybernetic Studies (ÖSGK) | Austrian Computer Society (OCG) | EUCog -
European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics

Languages

English | German | French | Italian