

# Oliver Korn

## List of publications

(as of July 2021)

### Books and Science Comic

**Korn, Oliver** & Jonas Grund. 2021. Social Robots. A Science Comic. <https://www.affective-lab.org/comics> ISBN 978-3-9822778-0-6 (English version), ISBN 978-3-9822778-1-3 (German version)

**Korn, Oliver**, Ed. 2019. Social Robots: Technological, Societal and Ethical Aspects of Human-Robot Interaction. Cham: Springer International Publishing.  
<https://doi.org/10.1007/978-3-030-17107-0>

**Korn, Oliver** & Newton Lee, Eds. 2017. Game Dynamics. Best Practices in Procedural and Dynamic Game Content Generation. Cham: Springer International Publishing.  
<https://doi.org/10.1007/978-3-319-53088-8>

### Conference Contributions: Full Papers

Willwacher, Steffen & **Oliver Korn**. 2021. "Gamification of Movement Exercises in Rehabilitation and Prevention: A Framework for Smart Training in AI-Based Exergames". S. 855–62 in Advances in Industrial Design. Bd. 260, Lecture Notes in Networks and Systems, edited by C. S. Shin, G. Di Bucchianico, S. Fukuda, Y.-G. Ghim, G. Montagna, & C. Carvalho. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-030-80829-7\\_104](https://doi.org/10.1007/978-3-030-80829-7_104)

Wang, Isaac, Lea Buchweitz, Jesse Smith, Lara-Sophie Bornholdt, Jonas Grund, Jaime Ruiz & **Oliver Korn**. 2020. "Wow, You Are Terrible at This! – An Intercultural Study on Virtual Agents Giving Mixed Feedback". In IVA '20: Proceedings of the 20th International Conference on Intelligent Virtual Agents. ACM Press. <https://doi.org/10.1145/3383652.3423887>

Theil, Arthur, Lea Buchweitz, James Gay, Eva Lindell, Li Guo, Nils-Krister Persson & **Oliver Korn**. 2020. "Tactile Board: A Multimodal Augmentative and Alternative Communication Device for Individuals with Deafblindness". P. 223–228 in 19th International Conference on Mobile and

Ubiquitous Multimedia, MUM 2020. ACM Press. <https://doi.org/10.1145/3428361.3428465>

Lindell, Eva, Arthur Theil, Li Guo, Nasrine Olsson, **Oliver Korn** & Nils-Krister Persson. 2020. "Physical Add-Ons for Haptic Human-Surrounding Interaction and Sensorial Augmentation". P. 183-188 in: Human Interaction, Emerging Technologies and Future Applications III. I-HIET 2020. Advances in Intelligent Systems and Computing, vol. 1253. Springer, Cham. [https://doi.org/10.1007/978-3-030-55307-4\\_28](https://doi.org/10.1007/978-3-030-55307-4_28)

Theil, Arthur, Lea Buchweitz, Mauricio Fuentes & **Oliver Korn**. 2020. "Co-Designing Assistive Tools to Support Social Interactions by Individuals Living with Deafblindness". P. 79-83 in DIS' 20 Companion Publication of the 2020 ACM Designing Interactive Systems Conference. ACM Press. <https://doi.org/10.1145/3393914.3395869>

**Korn, Oliver**, James Gay, Rúben Gouveia, Lea Buchweitz, Annika Sabrina Schulz & Moritz Umfahrer. 2020. "Tactile Navigation with Checkpoints as Progress Indicators?: Only when Walking Longer Straight Paths". In Proceedings of the 13th Pervasive Technologies Related to Assistive Environments Conference. ACM Press. <https://doi.org/10.1145/3389189.3392605>

**Korn, Oliver** & Adrian Rees. 2019. "Affective Effects of Gamification. Using Biosignals to Measure the Effects on Working and Learning Users". P. 1-10 in Proceedings of the 12th Pervasive Technologies Related to Assistive Environments Conference. ACM Press. <https://doi.org/10.1145/3316782.3316783>

Schulz, Annika Sabrina, Franziska Schulz, Rúben Gouveia & **Oliver Korn**. 2018. "Branded Gamification in Technical Education". P 1-8 in 2018 10th International Conference on Virtual Worlds and Games for Serious Applications (VS-Games). <https://doi.org/10.1109/VS-Games.2018.8493413>

**Korn, Oliver**, Gerald Bieber & Christian Fron. 2018. "Perspectives on Social Robots: From the Historic Background to an Experts' View on Future Developments". P. 186-193 in Proceedings of the 11th Pervasive Technologies Related to Assistive Environments Conference. ACM Press. <https://doi.org/10.1145/3197768.3197774>

**Korn, Oliver**, Raymond Holt, Efstratios Kontopoulos, Astrid M. L., Kappers, Nils-Krister Persson & Nasrine Olson. 2018. "Empowering Persons with Deafblindness: Designing an Intelligent Assistive Wearable in the SUITCEYES Project". P. 545-551 in Proceedings of the 11th Pervasive Technologies Related to Assistive Environments Conference. ACM Press. <https://doi.org/10.1145/3197768.3201541>

- Korn, Oliver** & Stefan Tietz. 2017. "Strategies for Playful Design when Gamifying Rehabilitation. A Study on User Experience". P. 209-214 in PETRA '17 Proceedings of the 8th International Conference on PErvasive Technologies Related to Assistive Environments. ACM Press. <https://doi.org/10.1145/3056540.3056550>
- Korn, Oliver**, Lukas Stamm & Gerd Möckl. 2017. "Designing Authentic Emotions for Non-Human Characters. A Study Evaluating Virtual Affective Behavior". P. 477-487 in Proceedings of the 2017 Designing Interactive Systems Conference, DIS '17. ACM Press. <https://doi.org/10.1145/3064663.3064755>
- Funk, Markus, Thomas Kosch, Romina Kettner, **Oliver Korn** & Albrecht Schmidt. 2016. "motionEAP: An overview of 4 years of Combining Industrial Assembly with Augmented Reality for Industry 4.0". In Proceedings of the 16th International Conference on Knowledge Technologies and Data-driven Business. ACM Press.
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- Korn, Oliver**, Johannes Lang, Andreas Korge, Haris Causegic & Albrecht Schmidt. 2016. "Gamification of a Workday. A Study on the Effects in Sheltered Employment". P. 3114-3121 in Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems, CHI EA '16. ACM Press. <https://doi.org/10.1145/2851581.2892283>
- Schwind, Valentin, Katrin Wolf, Niels Henze & **Oliver Korn**. 2015. "Determining the Characteristics of Preferred Virtual Faces Using an Avatar Generator" P. 221-230 in Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play, CHI PLAY '15, ACM Press. <https://doi.org/10.1145/2793107.2793116>
- Korn, Oliver**, Markus Funk & Albrecht Schmidt. 2015. "Design Approaches for the Gamification of Production Environments. A Study Focusing on Acceptance. P. 1-7 in Proceedings of the 8th International Conference on PErvasive Technologies Related to Assistive Environments, PETRA '16. ACM Press. <https://doi.org/10.1145/2769493.2769549>
- Funk, Markus, Andreas Bächler, Liane Bächler, **Oliver Korn**, Christoph Krieger, Thomas Heidenreich & Albrecht Schmidt. 2015. "Comparing Projected In-Situ Feedback at the Manual Assembly Workplace with Impaired Workers". P. 1-8 in Proceedings of the 8th International Conference on PErvasive Technologies Related to Assistive Environments, PETRA '15. ACM Press. <https://doi.org/10.1145/2769493.2769496>

- Korn, Oliver**, Markus Funk & Albrecht Schmidt. 2015. "Towards a Gamification of Industrial Production. A Comparative Study in Sheltered Work Environments". P. 84-93 in Proceedings of the 7th ACM SIGCHI Symposium on Engineering Interactive Computing Systems, EICS '15. ACM Press. <https://doi.org/10.1145/2774225.2774834>
- Korn, Oliver**, Adrian Rees & Uwe Schulz. 2015. "Small-Scale Cross Media Productions. A Case Study of a Documentary Game". P. 149-154 in Proceedings of the ACM International Conference on Interactive Experiences for TV and Online Video, TVX '15. ACM Press. <https://doi.org/10.1145/2745197.2755516>
- Korn, Oliver**, Markus Funk, Stephan Abele, Albrecht Schmidt & Thomas Hörz. 2014. "Context-aware Assistive Systems at the Workplace. Analyzing the Effects of Projection and Gamification". P. 38:1–38:8 in Proceedings of the 7th International Conference on Pervasive Technologies Related to Assistive Environments, PETRA '14. ACM Press. <https://doi.org/10.1145/2674396.2674406>
- Korn, Oliver**, Stephan Abele, Albrecht Schmidt & Thomas Hörz. 2013. "Augmentierte Produktion. Assistenzsysteme mit Projektion und Gamification für leistungsgeminderte und leistungsgewandelte Menschen". P. 119-128 in Tagungsband Konferenz Mensch & Computer 2013: Oldenbourg Wissenschaftsverlag. <http://dl.gi.de/handle/20.500.12116/7500>
- Korn, Oliver**, Albrecht Schmidt & Thomas Hörz. 2013. "Augmented Manufacturing: A Study with Impaired Persons on Assistive Systems Using In-Situ Projection". P. 21:1–21:8 in Proceedings of the 6th International Conference on Pervasive Technologies Related to Assistive Environments, PETRA '13. ACM Press. <https://doi.org/10.1145/2504335.2504356>
- Korn, Oliver**, Albrecht Schmidt & Thomas Hörz. 2013. "The Potentials of In-Situ-Projection for Augmented Work-places in Production. A Study with Impaired Persons". P. 979-984 in Extended Abstracts of the ACM SIGCHI Conference on Human Factors in Computing Systems, CHI EA '13. ACM Press. <https://doi.org/10.1145/2468356.2468531>
- Korn, Oliver**. 2012. "Industrial Playgrounds. How Gamification Helps to Enrich Work for Elderly or Impaired Persons in Production". P. 313-316 in Proceedings of the 4th ACM SIGCHI Symposium on Engineering Interactive Computing Systems, EICS '12. ACM Press. <https://doi.org/10.1145/2305484.2305539>
- Korn, Oliver**, Albrecht Schmidt & Thomas Hörz. 2012. "Assistive Systems in Production Environments: Exploring Motion Recognition and Gamification". P. 9:1–9:5 in Proceedings of the 5th International Conference on Pervasive Technologies Related to Assistive Environments, PETRA '12. ACM Press. <https://doi.org/10.1145/2413097.2413109>

Brach, Michael, Klaus Hauer, **Oliver Korn**, Robert Konrad, Sven Unkauf, Sandro Hardy & Stefan Göbel. 2012. "Entwicklung eines computeranimierten Systems zum Kraft- und Balancetraining für Senioren". P. 1-9 in Technik für ein selbstbestimmtes Leben: 5. Deutscher AAL-Kongress, AAL 2012. Berlin: VDI Verlag.

### Conference Contributions: Posters, Extended Abstracts, Demos, Workshops

Bordini, Rogerio A. & **Oliver Korn**. 2020. "A Mobile App to Combat Loneliness and Social Isolation Among University Students" P. 1–4 in 22nd International Conference on Human-Computer Interaction with Mobile Devices and Services, MobileHCI '20. ACM Press. <https://doi.org/10.1145/3406324.3409260>

Gay, James, Moritz Umfahrer, Arthur Theil, Lea Buchweitz, Eva Lindell, Li Guo, Nils-Krister Persson & **Oliver Korn**. 2020. "Keep Your Distance: A Playful Haptic Navigation Wearable for Individuals with Deafblindness". in Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '20). ACM Press. <https://doi.org/10.1145/3373625.3418048>

Buchweitz, Lea, Arthur Theil, James Gay & **Oliver Korn**. 2020. "Exploring Low-Cost Materials to Make Pattern-Based Lock-Screens Accessible for Users with Visual Impairments or Deafblindness". in Proceeding of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '20). ACM Press. <https://doi.org/10.1145/3373625.3418020>

Grund, Jonas, Moritz Umfahrer, Lea Buchweitz, James Gay, Arthur Theil & **Oliver Korn**. 2020. "A Gamified and Adaptive Learning System for Neurodivergent Workers in Electronic Assembling Tasks". P. 491-494 in Proceedings of the Conference on Mensch und Computer, MuC '20. ACM Press. <https://doi.org/10.1145/3404983.3410420>

Nandkumar, Karan, Annika Sabrina Schulz & **Oliver Korn**. 2020. "Wearable or HMD?: How to Support Tactile Navigation". P. 1-2 in Proceedings of the 13th PErvasive Technologies Related to Assistive Environments Conference, PETRA '20. ACM Press. <https://doi.org/10.1145/3389189.3397644>

**Korn, Oliver**, Adrian Rees & Alan Dix. 2017. "Designing a System for Playful Coached Learning in the STEM Curriculum". P. 31-37 in Proceedings of the 2017 ACM Workshop on Intelligent Interfaces for Ubiquitous and Smart Learning, IUI '17, SmartLearn. ACM Press. <https://doi.org/10.1145/3038535.3038538>

Funk, Markus, **Oliver Korn** & Albrecht Schmidt. 2014. "An Augmented Workplace for Enabling User-Defined Tan-gibles". P. 1285-1290 in Extended Abstracts of the ACM SIGCHI Conference on Human Factors in Computing Systems, CHI EA '14. ACM Press. <https://doi.org/10.1145/2559206.2581142>

**Korn, Oliver**, Albrecht Schmidt, Thomas Hörz & Daniel Kaupp. 2012. "Assistive system experiment designer ASED: A Toolkit for the Quantitative Evaluation of Enhanced Assistive Systems for Impaired Persons in Production". P. 259-260 in Proceedings of the 14th international ACM SIGACCESS conference on Computers and Accessibility, ACM Press. <https://doi.org/10.1145/2384916.2384982>

### Journal Contributions

**Korn, Oliver**, Neziha Akalin & Ruben Gouveia. 2021. "Understanding Cultural Preferences for Social Robots: A Study in German and Arab Communities". ACM Transactions on Human-Robot Interaction 10(2):12:1-12:19. <https://doi.org/10.1145/3439717>

Bordini, Rogério Augusto, Johann-Christoph Münscher, Kim Annabell Baumgartner, Sara Hagos, Jennifer Hornig, Stefano Gampe, Berkay Yaman, **Oliver Korn** & Philipp Yorck Herzberg. 2020. "Strangers in a Strange Land: Designing a Mobile Application to Combat Loneliness and Isolation Among Foreign University Students". Journal of Technology in Behavioral Science. <https://doi.org/10.1007/s41347-020-00171-6>

**Korn, Oliver**. 2019. "Soziale Roboter – Einführung und Potenziale für Pflege und Gesundheit". Wirtschaftsinformatik & Management 11:126–35. <https://doi.org/10.1365/s35764-019-00187-5>

Tsiakas, Konstantinos, Maria Kyrarini, Vangelis Karkaletsis, Fillia Makedon & **Oliver Korn**. 2018. "A Taxonomy in Robot-Assisted Training: Current Trends, Needs and Challenges". Technologies (6, 119):19. <https://doi.org/10.3390/technologies6040119>

**Korn, Oliver**, Michael Blatz, Adrian Rees, Jakob Schaal, Valentin Schwind & Daniel Görlich. 2017. "Procedural Content Generation for Game Props? A Study on the Effects on User Experience". Computers in Entertainment 15(2):1:1–1:15, <https://doi.org/10.1145/2974026>

**Korn, Oliver** & Alan Dix. 2016. "Educational Playgrounds: How Context-aware Systems Enable Playful Coached Learning". Interactions 24(1):54–57. <https://doi.org/10.1145/3012951>

**Korn, Oliver** & Albrecht Schmidt. 2015. "Gamification of Business Processes: Redesigning Work in Production and Service Industry". *Procedia Manufacturing* 3:3424–31. <https://doi.org/10.1016/j.promfg.2015.07.616>

Brach, Michael & **Oliver Korn**. 2012. "Assistive Technologies at Home and in the Workplace – A Field of Research for Exercise Science and Human Movement Science". *European Review of Aging and Physical Activity* 9(1):1–4. <https://doi.org/10.1007/s11556-012-0099-z>

Brach, Michael, Klaus Hauer, Lisa Rotter, Christina Werres, **Oliver Korn**, Robert Konrad & Stefan Göbel. 2012. "Modern Principles of Training in Exergames for Sedentary Seniors: Requirements and Approaches for Sport and Exercise Sciences". *International Journal of Computer Science in Sport* 11:86–99. <https://doi.org/10.13140/RG.2.1.3762.2647>

## Book Chapters

**Korn, Oliver**, Lea Buchweitz, Adrian Rees, Gerald Bieber, Christian Werner & Klaus Hauer. 2019. "Using Augmented Reality and Gamification to Empower Rehabilitation Activities and Elderly Persons. A Study Applying Design Thinking". P. 219-229 in *Advances in Artificial Intelligence, Software and Systems Engineering*. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-94229-2\\_21](https://doi.org/10.1007/978-3-319-94229-2_21)

Müller, Andrea, Selina Anke, Sabrina Herrmann, Pia Katz, Christina Leuchtweis, Christina Miclau, Sandra Wörner, & **Oliver Korn**. 2018. "Measuring the Influence of User Experience on Banking Customers' Trust". P. 382-395 in *HCI in Business, Government, and Organizations*, vol. 10923, edited by F. F.-H. Nah und B. S. Xiao. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-91716-0\\_30](https://doi.org/10.1007/978-3-319-91716-0_30)

**Korn, Oliver**. 2018. "Autonomie beim Einsatz kontextbewusster Systeme: Der Weg zum Emotionsbewusstsein". P. 203-214 in *Das Streben nach Autonomie: Reflektionen zum digitalen Wandel*, edited by Thomas Breyer-Mayländer. Baden-Baden: Nomos. <https://doi.org/10.5771/9783845282541-202>

**Korn, Oliver**, Florian Brenner, Julian Börsig, Fabio Lalli, Maik Mattmüller, und Andrea Müller. 2018. "Defining Recrutainment: A Model and a Survey on the Gamification of Recruiting and Human Resources". P. 37-49 in *Advances in The Human Side of Service Engineering*, vol. 601, edited by L. E. Freund & W. Cellary. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-60486-2\\_4](https://doi.org/10.1007/978-3-319-60486-2_4)

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- Blatz, Michael & **Oliver Korn**. 2017. "A Very Short History of Dynamic and Procedural Content Generation". P. 1-13 in Game Dynamics. Best Practices in Procedural and Dynamic Game Content Generation, edited by O. Korn & N. Lee. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-53088-8\\_1](https://doi.org/10.1007/978-3-319-53088-8_1)
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- Korn, Oliver**, Michael Brach, Klaus Hauer & Sven Unkauf. 2013. "Exergames for Elderly Persons: Physical Exercise Software Based on Motion Tracking within the Framework of Ambient Assisted Living". P. 258-268 in Serious Games and Virtual Worlds in Education, Professional Development, and Healthcare, edited by K. Bredl & W. Bösche. Hershey: IGI Global. <https://doi.org/10.4018/978-1-4666-3673-6.ch016>



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- Korn, Oliver**. 2011. "Serious Game Design: Potenziale und Fallstricke bei der spielerischen Kontextualisierung von Lernangeboten". S. 15-26 in Digitale Lernwelt – Serious Games: Einsatz in der beruflichen Weiterbildung, edited by M. Metz & F. Theis. Bielefeld: W. Bertelsmann Verlag.