Prof. Dr. Thomas Lux

Professorship of Process Management in Health Care, Faculty of Health Care, Head of Competence Center eHealth, Niederrhein University of Applied Sciences

Professor at the European Center for Peace and Development (ECPD), University for Peace, established by the United Nations



Prof. Dr. Thomas Lux

Niederrhein University of Applied Sciences Competence Center eHealth Reinarzstraße 49 D – 47805 Krefeld Germany

fon: +49 (0) 2151 822-6624

email: thomas.lux@hs-niederrhein.de

CV: Prof. Dr. rer. oec. Thomas Lux, studied business administration and economics at the Ruhr-University Bochum, doctoral thesis in the field of business informatics, founder and head of the Competence Centre eHealth and professor for process management in healthcare at Niederrhein University of Applied Sciences. His teaching focuses on process management, eHealth and business administration in healthcare. His research covers various areas of process management, eHealth economics and eHealth in general and he is involved in several research projects. He is co-founder of the committee "Health Economics and eHealth" of the German Society of Health Economics (dggoe) and currently chairman of the committee and member of the board of the dggoe. He has conducted research at Tongji University Shanghai, China, and is reviewer for several international conferences and journals (e-health Austria, European Conference on Information Systems (ECIS), journal BISE (Business & information Systems Engineering), journal "Health Information Science and Systems"). He is also a member of the supervisory board of a hospital group and is active in the social sector. He also became a professor at the European Centre for Peace and Development (ECPD), University for Peace (UPEACE), established by the United Nations.

Publications (overview)

S. Hensel, B. Jagusch and **T. Lux**, "Introduction of Artificial Intelligence in Healthcare Lectures: An Evaluation," 2023 20th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), Giza, Egypt, 2023, pp. 1-5.

Breil, B., Lux, T. (2024). Technische Herausforderung bei der Nutzbarmachung von Gesundheitsdaten. In: Henke, V., Hülsken, G., Schneider, H., Varghese, J. (eds) Health Data Management. Springer Gabler, Wiesbaden.

Weber, Peter; Gabriel, Roland; **Lux, Thomas**; Schroer, Nadja; Menke, Katharina: Basics in business informatics. Berlin; Dortmund: Springer Campus, 2nd Ed. 2022

L. Kremer, R. Gutu, L. Leeser, B. Breil and **T. Lux**, "Process optimization of a pre-medication process in inpatient hospital care with 2D- and 3D-modeling software - an as-is process to-be process comparison," 2022 IEEE/ACS 19th International Conference on Computer Systems and Applications (AICCSA), Abu Dhabi, United Arab Emirates, 202

Weber, Peter; Gabriel, Roland; **Lux, Thomas**; Menke, Katarina: Basiswissen Wirtschaftsinformatik, 4. kompl. überarbeitete und erw. Auflage, Springer, 202

Lux, Thomas, Müller-Mielitz, Stefan; Köberlein-Neu, Juliane: E-Health-Ökonomie II - Evaluation und Implementierung, Springer, 2022

Breil B & Lux T (2022). Process Management: Designing Digital Workflows. In Hübner, U, Mustata Wilson, G, Shaw Morawski, T & Ball, M (Hrsg.), Nursing Informatics: A Health Informatics, Interprofessional and Global Perspective, Springer Nature.

Lux, Thomas: E-Health, in: Kollmann, T. (Hrsg.). Handbuch Digitale Wirtschaft. Wiesbaden: Springer Fachmedien Wiesbaden, Imprint: Springer Gabler, 2020, S. 1151-1168

Lux, Thomas; Breil, Bernhard; Kremer, Lisanne; Rühl, L. and Apolinário-Hagen, J.: Determination, Prioritization and Analysis of User Requirements to Prevention Apps, 2019 IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA), Abu Dhabi, United Arab Emirates, 2019, pp. 1-5.

Breil, Bernhard; Kremer, Lisanne; Taweel, Adel; **Lux, Thomas**: A Comparative Literature Analysis of the Health Informatics Curricula, in: Proceedings of the 2018 IEEE/ACS 15th International Conference on Computer Systems and Applications (AICCSA 2018), Aqaba, Jordan, p. 289-292

Müller-Mielitz, Stefan; Lux, Thomas (2017): E-Health-Ökonomie, Springer Gabler, Wiesbaden 2017

Lux, Thomas; Raphael, Holger (2016): Empirische Analyse des Einsatzes von Critical Incident Reporting Systemen (CIRS) an deutschen Universitätskliniken, in: Volker Nissen, Dirk Stelzer, Steffen Straßburger und Daniel Fischer (Hrsg.): Multikonferenz Wirtschaftsinformatik (MKWI) 2016, Ilmenau 2016, S. 655-666

Lux, Thomas; Schufft, Katharina; Lorenz, Anja (2013): Evaluating the Potential of Social Networking Services for Hospital Recruitment, in: Proceedings of the 21st European Conference on Information Systems (ECIS), Utrecht, Netherlands 2013.

Bartsch, Patrick; **Lux, Thomas**, Gabriel, Roland; Wagner, Alexander (2013): Business Intelligence and Information Systems in Hospitals – Distribution and Usage of BI and HIS in German Hospitals, in: Mantas, John; Hasman, Arie: Informatics, Management and Technology in Healthcare, IOS Press, Amsterdam/Berlin/Tokyo/Washington DC 2013, S. 191-193

Lux, Thomas; Gabriel, Roland; Wagner, Alexander; Bartsch, Patrick: Business Process Oriented Analysis of IT-Safety in Hospitals, in: Jordanova, M.; Lievens, F. (Hrsg.): Global Telemedicine and eHealth Updates, Vol. 5, Luxembourg, 2012, p. 256-260.

Lux, Thomas; Bartsch, Patrick; Wagner, Alexander; Gabriel, Roland: E-Procurement in Hospitals - an integrated supply chain management of pharmaceutical und medical products by the usage of mobile devices, in: Proceedingsof the MOBIHEALTH 2012, 3rd International Conference on Wireless Mobile Communication und Healthcare, International Workshop on "Advances in Personalized Healthcare Services, Wearable Mobile Monitoring, and Social Media Pervasive Technologies" (APHS 2012), Paris, France 2012.

Bartsch, Patrick; Gabriel, Roland; **Lux, Thomas**; Wagner, Alexander: Improvement of Patient Safety by process-oriented live-monitoring of relevant process-data, in: Chrysovaladis, Prachalias (Hrsg.): PROCEEDINGS of the 10th International Conference on Information Communication Technologies in HEALTH, Greece 2012, S. 357-365

Wagner, Alexander; Gabriel, Roland; **Lux, Thomas**; Bartsch, Patrick: Business process oriented analysis of information security in hospitals – Implementation in a project, in: Chrysovaladis, Prachalias (Hrsg.): PROCEEDINGS of the 10th International Conference on INFORMATION COMMUNICATION TECHNOLOGIES IN HEALTH, Greece 2012, S. 156-163.

Lux, Thomas; Gabriel, Roland; Wagner, Alexander; Bartsch, Patrick (2012): Hospital Engineering - Business Engineering in Health Care, in: Jordanova, M.; Lievens, F. (Hrsg.): Med-e-Tel 2012 Electronic Proceedings: The International eHealth, Telemedicine and Health ICT Forum for Educational, Networking and Business, ISfTeH, Luxembourg 2012, S. 231-235.

Lux, Thomas: HOSPITAL ENGINEERING, in: M. Szomszor and P. Kostkova (Eds.): E-Health 2010, LNICST 69, pp. 229-234. Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (2011)

Speeches (overview)

Lectures on AI in Healthcare, an interdisciplinary learning approach, Presentation at the 7th international Workshop on Health Informatics: IT Innovations and Disruptive Approaches in the Digital Health Era (HOPE'24), within the 21th International ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2024 October 22-26, 2024, Sousse, Tunesia

How much digitalisation is needed in hospitals? An overview of current maturity models, XXIX ECPD International Summer School of Healthcare Institutions, Budva, Montenegro, Jun. 2024

Introduction of Artificial Intelligence in Healthcare Lectures: An Evaluation; Presentation at the 6th international Workshop on Health Informatics: IT Innovations and Disruptive Approaches in the Digital Health Era (HOPE'23), within the 20th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2023, December 6th 2023, Cairo, Egypt

Digital health - current and future trends in the digitization of the healthcare system, The 2nd Conference of Health Insurance Fund of Herzegovina-Neretva-Canton, Mostar, Oct. 2022

Virtual Hospital – Potentiale von Virtual Reality zur Analyse und Simulation von Prozessen im Krankenhaus (zusammen mit Kremer, Lisanne), Vortrag auf der DMEA - Satellitenveranstaltung 2022 von GMDS und BVMI, 25. April 2022, Berlin

Care of Covid-19 patients: Specialists are the bottleneck Evaluating the Potential of Social Networks for Recruitment in German Hospitals, INTERNATIONAL CONFERENCE MASS AND MARKETING COMMUNICATIONS AGAINST CORONAVIRUS, North Caucasus Federal University, May, 27th, 2021

Aktuelle Enwicklungen im Bereich E-Health, IHK Ausschuss Gesundheitswirtschaft, Krefeld, 9. November 2021

Success Factors for Market Entry of Mobile Health Startups, 18th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2021, Tangier, Morocco, 03.11.2021

Prevalence of Covid-19 in Germany - Analysis of Selected Demographic Influencing Factors, XXVI ECPD INTERNATIONAL SUMMER SCHOOL MANAGEMENT OF HEALTHCARE INSTITUTIONS, Budva, 24th of June 2021.

Innovation and Competition in the Health Sector, Bitkom – E-Health, 7. Oktober 2020

The future digital healthcare system - Germany's digitization strategy, XXV ECPD International Summer School Management of Healthcare Institutions with the main topic Health Crises Management und Major Disaster Programs in the light with Pademic COVID-19- Hotel "Splendid" – Budva, 14-18 September 2020

User requirements for health prevention apps - What can we learn for digital crisis management in healthcare?, XXV ECPD International Summer School Management of Healthcare Institutions with the main topic Health Crises Management und Major Disaster Programs in the light with Pademic COVID-19- Hotel "Splendid" – Budva, 14 – 18 September 2020

Determination, Prioritization and Analysis of User Requirements to Prevention Apps, 2019 IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA), Abu Dhabi, United Arab Emirates, 04.11.2019

Digitalisierung gestalten oder Digitalisierung erleiden?, Teilnahme Paneldiskussion auf der Startup Night Digital Health, 27. Juni 2019, Mönchengladbach

Digital Revolution or Evolution: The future digital hospital, Vortrag im Rahmen der V ECPD REGIONAL CONFERENCE ON HEALTH ECONOMICS WITH THE MAIN TOPIC ALLOCATION OF SCARCE RESOURCES IN HEALTH CARE, Opatija, Croatia, 28./29.09.2018

Process Management and supply chain management of medical and pharmaceutical products – connecting the actors, III ECPD REGIONAL CONFERENCE ON PHARMACOECONOMICS with the main topic HEALTH CARE: PROCESS MANAGEMENT, FINANCING AND PURCHASING, Brijuni, Croatia, Sept. 24th 2016

Evaluating the Potential of Social Networking Services for Hospital Recruitment, International Conference "21st European Conference on Information Systems (ECIS) 2013", 08.06.2013. Utrecht, Netherland

E-Procurement in hospitals – An integrated supply chain management of pharmaceutical and medical products by the usage of mobile devices, Vortrag auf der 3rd International Conference on Wireless Mobile Communication and Healthcare, International Workshop on "Advances in Personalized Healthcare Services, Wearable Mobile Monitoring, and Social Media Pervasive Technologies" (APHS 2012), 21.-23.11.2012, Paris, France 2012.

Point of Care: 'Process oriented Hospital Information Systems', Workshop Process Management in Health Care, Ministry of Health Care, Vienna, Austria 2012.

Hospital Engineering - Business Engineering in Health Care, International Conference "Med@Tel - THE INTERNATIONAL eHEALTH, TELEMEDICINE AND HEALTH ICT FORUM for Education, Networking and Business, Luxembourg, G.D. of Luxembourg, 2012, 18.04.2012.

HOSPTIAL ENGINEERING, 3rd International Conference on Electronic Healthcare for the 21st century (eHealth 2010), 13-15 December 2010, Casablanca, Morocco