Professor João Porto de Albuquerque

Curriculum Vitae (last update 25 August 2020)

CONTACT INFORMATION

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CURRENT AFFILIATIONS

Professor and **Director**, Institute for Global Sustainable Development, University of Warwick, UK **Co-Director**, Warwick Institute for the Science of Cities, University of Warwick, UK **Turing Fellow**, The Alan Turing Institute for Data Science and Artificial Intelligence, UK **Visiting Professor**, GIScience Chair, Institute of Geography, Heidelberg University, Germany

EDUCATION/ACADEMIC DEGREES

- Habilitation ("livre-docência/venia legend?"). Department of Computer Systems, Institute of Mathematics and Computer Science, University of São Paulo, October 2015. *Thesis: Contributions towards a Sociotechnical Approach to Information Systems.*
- **Doctor in Computer Science**, University of Campinas (Unicamp), Brazil in collaboration with Technical University of Dortmund, Germany, 2002-2006.

Thesis: Model-Based Configuration Management of Security Systems in Complex Network Environments. Supervisors: Prof. Dr. Paulo Lício de Geus (Unicamp) and Prof. Dr. Heiko Krumm (TU Dortmund). Social Sciences and Philosophy, University of Campinas, Brazil, 2002-2004.

Undergraduate-level modules on social sciences and philosophy within the BA in Social Sciences programme.

Bachelor in Computer Science, University of Campinas, Brazil, 1998-2001. *Grade*: GPA 9.3/10, equivalent to first class (distinction: highest GPA of this year's class).

RESEARCH AREAS/INTERESTS

Professor Porto de Albuquerque is a geographer and computer scientist with an interdisciplinary background in computational, social and geographical sciences. His research is situated within an interdisciplinary problem space that intersects geographic information science, information management and science & technology studies. He is particularly interested in developing innovative research methods to improve our understanding of sociotechnical urban environments with a view to produce transformations towards global sustainable development. His trandisciplinary approach draws on social research and computational methods alongside methodological innovations to enable participation of non-academic stakeholders, covering wide-range research topics that include citizen digital participation, urban analytics, smart cities, crowdsourced and volunteered geographic information, decision support systems, disaster management, urban resilience, and information technology for development.

PRIZES/AWARDS/FELLOWSHIPS

Turing Fellowship, The Alan Turing Institute, UK, 2018-2020.

Nomination for the Best Paper Award, International Conference on Information Systems 2018. First Prize in the GISRUK Consumer Data Research Centre (CDRC) Challenge "Brexit vote and immigration", together with a group of mentored PhD students (Konstantin Klemmer, Andra Sonea, René Westerholt), Geographic Information Science Research UK conference, 2018.

Fellowship Joint Excellence in Science and Humanities Programme, Austrian Academy of Sciences (ÖAW), 2016.

Honorable Mention for research with impact to practice by the National Centre for Disaster Monitoring and Early-Warning to the project "The use of heterogeneous data sources and spatial decision support systems for supporting decision-making in disaster management" (with supervised PhD student Flávio E. A. Horita), 2016.

Best Runner Up Paper Award 2015 of the Journal of Strategic Information Systems, 2016.

- Shortlisted for the MundoGEO#connect Prize of Geotechnologies for the Environment, project "AGORA: A Geospatial, Open collaboRative Architecture for building resilience against disasters and extreme events", 2016.
- Visiting Professor Fellowship, Heidelberg University within the DFG Excellence Initiative Programme, awarded 2014-2017.
- "Distinguished Ad-hoc Reviewer" honoured by RAE Brazilian Journal of Business Administration, 2015. CAPES Scholarship (Ministry of Education, Brazil, 30K EUR), "A geospatial open architecture for
- building resilience against flooding", scholarship for a research stay at Heidelberg University, awarded 2014-2015.
- FAPESP Scholarship (Research Foundation of the State of São Paulo) (55K USD), "A geospatial open architecture for building resilience against disasters and climate change effects", scholarship for research stay at Heidelberg University, awarded 2013-2014.
- "Distinguished Lecturer" honoured by the graduates in Computer Science, University of São Paulo, 2012.
- **Research Fellowship, Alexander von Humboldt Foundation** for a post-doctoral research stay at University of Hamburg, Germany, awarded 2006-2008.
- Best Paper Award, WOSES Workshop a Sociotechnical Approach to Software Engineering. Vila Velha/ES, Brazil, 2006.
- Exchange Scholarship, German Academic Exchange Service (DAAD) for a research stay to perform part of the PhD studies at Technical University of Dortmund, Germany, awarded 2003-2006.
- PhD Scholarship, CAPES (Foundation for Improvement of Higher Education) for pursuing a fullyfunded PhD at University of Campinas, awarded 2002-2003.
- "Scientific Initiation" Scholarship, FAPESP (The State of São Paulo Research Foundation) to conduct an individual research project on network security, awarded 2001.

RESEARCH INCOME AND GRANTS

External competitive grants

- Professor Porto de Albuquerque has secured competitive research funds in excess of £2.5m as PI (£9m as Co-I) from diverse national and international funding bodies, including major grants in collaboration with academic and non-academic partners in several countries (e.g. Brazil, Bangladesh, Colombia, Germany, Ghana, Kenya, Nigeria, Pakistan, Poland, Romania, Sweden, United States).
- Co-I AHRC/DfID "Data and Displacement: Assessing the Practical and Ethical Implications of Targeting Humanitarian Protection" (£393,391, awarded Jul/2020-Jun/2022, PI: Prof Vicki Squire/Warwick). Grant AH/T007516/1.
- Co-I/Co-PI UKRI Collective Fund, Global Challenges Research Fund **"Integrated Deprived Area Mapping System (IDEAMAPS) Network",** (£150K, awarded Apr/2020-Mar/2021), with African Population and Health Research Centre (APHRC, PI: Dr Caroline Kabaria) and other partners. Grant EP/T029900/1. The aim of this network is to develop and maintain an Integrated DEprived Area MAPping System (IDEAMAPS) that leverages the strengths of our current silo-ed approaches to "slum" area mapping. Working with partners in Nigeria (University of Lagos), Kenya (African Population and Health Research Centre), The Netherlands (ITC/University of Twente) and the United States (University of Chicago and George-Washington University).
- PI UKRI Collective Fund, Global Challenges Research Fund **"URBE Latam: Understanding Risks** and Enhancing Capabilities in Latin American Cities", (£1m, awarded Nov/2019-Oct/2022), with Federal University of Rio de Janeiro/UFRJ, Brazil and University of Antioquia, Colombia. Grant ES/T003294/1. URBE Latam aims to rethink how environmental risk data is produced, how it is used, and how it might enable transformations that close the implementation gap in

delivering equitable resilience for marginalised communities. The project will be based on two case studies focusing on specific areas of Rio Janeiro, Brazil and Medellín, Colombia. Working with partners at the British Geological Survey, Universidade Federal do Rio de Janeiro (Brazil), Universidad de Antioquia (Colombia), Colegio Mayor (Colombia), Brazil Geological Survey, National Disaster Monitoring and Early-Warning Centre (CEMADEN, Brazil).

- PI UKRI Collective Fund, GCRF Global Research Translation Awards, "Translating Waterproofing Data", (£370K, awarded Oct/2019-March/2021) with the National Disaster Monitoring and Early-Warning Centre/Cemaden and Fundacao Getulio Vargas, Brazil. Grant EP/T015683/1.
 PI (Main Applicant) Belmont Forum/Norface/ESRC Global Challenges Research
- Fi (Main Applicant) Bennont Forun/Norface/ESRC Global Chaneliges Research Fund/FAPESP/BMBF **"Waterproofing Data: engaging stakeholders in sustainable flood risk governance for urban resilience",** (€1m, awarded Oct/2018-Sep/2021). Funding under the "Transformations for Sustainability"/Norface/Belmont Forum programme with top up funds from the European Union. International Partners: Heidelberg University (Germany), Getulio Vargas Foundation (Brazil), National Disaster Monitoring and Early-Warning Centre (Brazil), Brazil Geological Survey, British Geological Survey. I am the overall PI leading an interdisciplinary group of researchers from Brazil, Germany and UK, cutting across social sciences, humanities and environmental sciences. We are working on innovative approaches to involve citizens in data production and sense making of flood risks in disadvantaged communities in São Paulo and Acre in Brazil. The project will prominently involve early-career researchers, with a group of four postdocs: 1 in the UK (CIM/Warwick), 1 in Germany and 2 in Brazil. UK grant ES/S006982/1.
- Co-I/UK PI, JPI Urban Europe SUGI: "Creating Interfaces: Building capacity for integrated governance at the Food-Water-Energy-nexus in cities on the water", (€1.2 m, overall PI Dr Jochen Wendel/European Institute for Energy Research, Germany), Sustainable Urbanisation Global Initiative - Food-Water-Energy Nexus (SUGI-FWE Nexus), Belmont Forum, UK funding from ESRC grant ES/S002235/1 and Innovate UK, managed budget: €209K. April/2018-Mar/2021. International Partners: University Corporation for Atmospheric Research/USA; Danube Delta National Institute for Research and Development/Romania; Nicolaus Copernicus University, Institute of Sociology/Poland; University of Delaware, School of Public Policy and Administration/USA; Plantagon International AB/Sweden; 52° North Initiative for Geospatial Open Source Software GmbH/Germany; Pracownia Zrównoważonego Rozwoju/Poland; Cultinova/UK; Royal Institute of Technology, Department of Sustainable development, environmental science and engineering/Sweden. The focus of the project is on building local capacity in knowledge creation and knowledge governance through innovative approaches, creating interfaces between science, citizens and policy/planning as well as between Food-Water-Energy nexus components. Urban Living Labs will be carried out in three case study areas: Tulcea (Romania), Slupsk (Poland), and Wilmington (USA). I lead WP5: Citizen-science-policy interfaces: Activating nexus interfaces through visualization, which is focused on methodological innovation for visualisation and decision support.
- Co-I NIHR: "Global Health Unit on Improving Health in Slums at University of Warwick", (£6m PI Prof Richard Lilford, Warwick Medical School), National Institute for Health Research, managed budget £600K, awarded June/2017-March/2021. Leading WP1: *Geo-spatial mapping of health services in slums*. The goal of this unit is to study access to healthcare in slums, with study sites in Dhaka/Bangladesh, Nairobi/Kenya, Ibadan and Lagos/Nigeria and Karachi/Pakistan. I lead the methodological development for participatory community mapping which relies upon and further develops open source mapping tools (OpenStreetMap, OpenDataKit) based on high-resolution satellite imagery and field surveys. The main methodological challenge is achieving the twofold aim of empowering/including local stakeholders and generating high-accurate spatial data as a sampling frame for health-science surveys. I line manage a team of a senior research fellow and 2 research assistants in Warwick and coordinate 4 local in-country mapping teams of our partners: African Population and Health Centre (Kenya), Independent University of Bangladesh, Agha-Kahn University (Pakistan) and University of Ibadan (Nigeria).

Concluded grants:

- PI, 2016/17 EPSRC Institutional Award of the Global Challenges Research Fund (GCRF): "UK-Brazil Collaboration on Leveraging Crowdsourced and Sensor Data to Support Decision-Making towards Urban Resilience" (£50K), project partners: BGS, CEMADEN, CPRM, USP, UFRJ, awarded Sept/2016-Mar/2017. Co-I: Dr Nathaniel Tkacz (Warwick).
- Co-PI, CAPES (Foundation of the Brazilian Ministry of Education): "Alerts and the Centre for Research on Disasters at University of São Paulo (ALERTA-CEPED-USP)" (899K BRL, PI:

Prof Carlos Morales, University of Sao Paulo), managed budget 110K BRL, awarded Apr/2015-Mar/2020. Leading WP: <u>AGORA – A Geospatial Open collaboRative Architecture for</u> <u>building resilience against disasters and extreme events.</u>

- PI, LUBW (Environmental Agency of the State of Baden-Württemberg, Germany) (€110K)
 - "OpenFloodRiskMap: A decision support system for identifying critical objects for flood emergency planning and risk management", awarded 2014-2016.
- PI, Microsoft Research (20K USD), "AGORA-CLOUD: Applying the cloud computing paradigm with the Azure platform to support A Geospatial, Open collaboRative Architecture for building resilience against disasters and extreme events", awarded 2015-2016.
- Co-I, CNPq Edital Universal 477499/2012-0, "Utilização de Redes de Sensores Sem Fio e Veículos Aéreos Não-Tripulados em Sistemas de Suporte a Operações de Resgate e Salvamento em Situações de Desastres". PI: Carlos Eduardo Pereira (UFRGS), awarded 2012-2015.
- Co-I, FAPESP Assessment of Impacts and Vulnerability to Climate Change in Brazil and Strategies for Adaptation Options. PI: José Marengo Orsini (INPE), awarded 2011-2014.
- PI, FAPESP (20K USD), "SocTec-BPM: A sociotechnical approach to business process management", awarded 2011-2013.
- Co-I, IDRC (International Development Research Council, Canada) (20K CND), "**Mobile money and local development**", awarded 2010-2012. PI: Eduardo H Diniz (FGV).

Internal grants:

- Co-PI, Monash-Warwick Alliance Fund, "**Sustainable Development of Informal Settlements and Citarum Basin Ecologies**" (£10K), awarded October 2019-September 2021. With Co-PI: Professor Rob Raven, Monash Sustainable Development Institute, Monash University.
- PI Warwick-FAPESP Fund. "**UK-Brazil collaboration for investigating the nexus between water, health and urban resilience**" (£10K), awarded October 2018-September 2020. Co-PI: Dr Eduardo Mario Mendiondo, University of São Paulo.
- PI, Warwick ESRC IAA NGO Data Fund: "**Making sense of humanitarian geospatial data**" (£7K), awarded 01/September/2018-16/March/2019. Grant from the Impact Acceleration Account to discuss about geospatial data and methodologies of making sense of them in partnership with Médicins-sans-Frontiers/Doctors without Borders (MSF UK).
- PI, Faculty of Social Sciences Research Development Fund (RDF): "Sociospatial Methods for Resilient Cities" (£4.5K), August 2017 March 2018.
- PI, Warwick Brazil Partnership Fund/Santander Universities: **"Towards a UK-Brazil Interdisciplinary Research Network on Urban Resilience Data"** (£10K), awarded Aug/2017-Jul/2018. Co-I: Dr Nathaniel Tkacz (Warwick).
- PI/Nominator: IAS International Visiting Fellowships Dr Eduardo Mario Mendiondo (£2.2 K), University of São Paulo.
- PI, Warwick Brazil Partnership Fund/Santander Universities: **"Social media for resilience?"** (£10K), awarded Aug/2016-Jul/2018. Co-I: Dr Nathaniel Tkacz (Warwick).
- Co-I, **MSc in Humanitarian Engineering** (PIs: Georgia Kremmyda and Volkan Degirmenci): IATL funding for developing the interdisciplinary postgraduate programme on Humanitarian Engineering, $f_{2.3}$ K, awarded in June 2016.

PROFESSIONAL RESEARCH EXPERIENCE

University of Warwick, United Kingdom

Professor and Director of the Institute of Global Sustainable Development, School of Cross-Faculty Studies, since Jan 2019.

Warwick Director of the Centre for Urban Science and Progress London (CUSP London), since Dec 2017.

Co-Director of the Warwick Institute for the Science of Cities, since Sept 2017. Associate Professor, Centre for Interdisciplinary Methodologies (CIM), Jan 2016- Dec 2018. Impact Director of CIM, Mar 2017-Dec 2018. Director of the MSc Urban Informatics and Analytics, Jan 2016-Sept 2018.

Acting Director of the MSc Big Data and Digital Futures, Jan 2017-Sept 2017.

University of São Paulo, Brazil

01/2016-03/2020 Honorary Associate Professor, Department of Computer Systems, Institute of Computing and Mathematical Sciences, University of São Paulo at São Carlos, Brazil 12/2015-12/2019 Associate Professor (honorary, on leave), Department of Computer Systems, Institute of Mathematics and Computing Sciences (ICMC-USP) at São Carlos Campus. 2014-2015 Assistant Professor level 2 (tenured), Department of Computer Systems, Institute of Mathematics and Computing Sciences (ICMC-USP) at São Carlos Campus. Member of the Software Engineering and Information Systems Research Group. Teaching undergraduate and postgraduate courses at Department of Computer Systems, advising M.Sc. and Ph.D. students, research focused upon collaborative and geographic information systems. Website: <u>http://www.agora.icmc.usp.br</u> . 2011-2014 Assistant Professor (tenured), Department of Computer Systems, Institute of Mathematics and Computing Sciences (ICMC-USP) at São Carlos Campus. 2008–2010 Assistant Professor for Information Systems, School of Arts, Sciences and Humanities, São Paulo. Participated in the commission to design and implement a new interdisciplinary MSc programme on Information Systems. Teaching and research focused upon sociotechnical aspects of business process modelling.

Heidelberg University, Germany

Since 04/2014 **Visiting Professor** at the Institute of Geography, GI Science Chair (led by Prof. Dr. Alexander Zipf) funded by Heidelberg University in DFG Excellence Programme. 2013-2014 **Visiting Scholar** (funded by FAPESP and CAPES, Brazil).

Teaching undergraduate and graduate courses, advising masters' and bachelor's thesis, and leading a research group on "*Disaster Mapping 2.0: Collaborative Systems for Disaster Risk Management*". Developed methods for analysing geographical relations with heterogeneous geographic data sources (social media, collaborative maps, sensor data) using quantitative (spatial statistical analysis) and qualitative (content analysis, interviews) techniques.

2012 **Visiting Scholar**, short-term stay (funded by the Alexander von Humboldt Foundation). Conducted research on the use of volunteered geographic information for disaster management.

London School of Economics and Political Science, United Kingdom

2007 **Visiting Postdoctoral Researcher**, short-term stay (2 months) at the Information Systems and Innovation Group (Europe Fellowship of the Alexander von Humboldt Foundation). Conducted research on social theories for understanding the relationship between organisational flexibility and business process modelling.

University of Hamburg, Germany

2006–2008 **Postdoctoral Research Fellow** of the Alexander von Humboldt Foundation. Host: Prof. Dr. Arno Rolf. Conducted the independent research project *"Introducing a Sociotechnical Perspective in the Design of IT Systems with the Mikropolis Model"* within in a multidisciplinary research group of the Department of Informatics focused on the social and organisational implications of information systems. Theoretical underpinnings draw on the field of Science and Technology Studies (particularly, Actor-Network Theory) and research methods employed included empirical qualitative methods (interviews, ethnography).

Lucent Technologies Inc., Campinas, Brazil

2006 **Research Contractor.** Developed a policy-based solution for traffic shaping and network security in high-bandwidth networks.

Technical University of Dortmund, Germany

2004-2006 **Visiting Researcher**. Doctoral research on conceptual modelling of network security systems conducted with Prof. Dr. Heiko Krumm at Department of Computer Science. Scholarship from DAAD.

SHORT-TERM RESEARCH STAYS

Visiting Professor, School of Business Administration of Sao Paulo, Fundação Getulio Vargas (FGV-EAESP), Brazil

- 02/2020 Visiting Professor at the Centre for Studies in Public Administration and Government hosted by Professor Maria Alexandra da Cunha, funded by CAPES.
- 07/2018-08/2018 Visiting Professor at the Centre for Studies in Public Administration and Government hosted by Professor Maria Alexandra da Cunha, short-term stay funded by FGV.

Visiting Scholar, University of Salzburg, Austria

06/2016-08/2016 Visiting Scholar at the Department of Geoinformatics (Z_GIS) hosted by Professor Thomas Blatschke and Dr Bernd Resch, short-term stay funded by the Austrian Academic of Sciences.

Visiting Scholar, University of Münster, Germany

10/2014- Visiting Scholar at the Institute of Information Systems, Supply Chain Management Chair (Prof. Dr. Bernd Hellingrath) short-term stay invited and funded by the University of Münster.

PUBLICATIONS

Google Scholar: 2306 citations, h-index 25; Scopus: 1055 citations, h-index 18.

*Asterisks highlight the 5 featured publications. +Plus sign indicates supervised graduate students at the time of writing.

Journal articles

- Ahmed SAKS, Ajisola M, Azeem K On behalf of the Improving Health in Slums Collaborative, et al. Impact of the societal response to COVID-19 on access to healthcare for non-COVID-19 health issues in slum communities of Bangladesh, Kenya, Nigeria and Pakistan: results of pre-COVID and COVID-19 lockdown stakeholder engagements *BMJ Global Health 2020*;5:e003042. <u>https://doi.org/10.1136/bmjgh-2020-003042</u>
- de Andrade, S. C.⁺, Restrepo-Estrada, C., Nunes, L.H., Rodrigues, C.A.M., Estrella, J.C., Delbem, A.C.B., & de Albuquerque, J. P. (2020). A multicriteria optimization framework for the definition of the spatial granularity of urban social media analytics. *International Journal of Geographical Information Science (IJGIS)*, https://doi.org/10.1080/13658816.2020.1755039
- Dahlmann, F., Stubbs, W., Raven, R., de Albuquerque, J. P. (2020). The 'purpose ecosystem': Emerging private sector actors in earth system governance, *Earth System Governance*, 2020, <u>https://doi.org/10.1016/j.esg.2020.100053</u>.
- Thomson, D.R.; Kuffer, M.; Boo, G.; Hati, B.; Grippa, T.; Elsey, H.; Linard, C.; Mahabir, R.; Kyobutungi, C.; Maviti, J.; Mwaniki, D.; Ndugwa, R.; Makau, J.; Sliuzas, R.; Cheruiyot, S.; Nyambuga, K.; Mboga, N.; Kimani, N.W.; Albuquerque, J.P.; Kabaria, C. (2020) Need for an Integrated Deprived Area "Slum" Mapping System (IDEAMAPS) in Low- and Middle-Income Countries (LMICs). *Social Sciences*, 9, 80. https://doi.org/10.3390/socsci9050080
- Kuffer, M.; Thomson, D.R.; Boo, G.; Mahabir, R.; Grippa, T.; Vanhuysse, S.; Engstrom, R.; Ndugwa, R.; Makau, J.; Darin, E.; de Albuquerque, J.P.; Kabaria, C. (2020) The Role of Earth Observation in an Integrated Deprived Area Mapping "System" for Low-to-Middle Income Countries. *Remote* Sensing, 12, 982. https://doi.org/10.3390/rs12060982
- Viale Pereira, G.; Estevez, E.; Cardona, D.; Chesñevar, C.; Collazzo-Yelpo, P.; Cunha, M.A.; Diniz, E.H.; Ferraresi, A.A.; Fischer, F.M.; Cardinelle Oliveira Garcia, F.; Joia, L.A.; Luciano, E.M.; de Albuquerque, J.P.; Quandt, C.O.; Sánchez Rios, R.; Sánchez, A.; Damião da Silva, E.; Silva-Junior, J.S.; Scholz, R.W. (2020) South American Expert Roundtable: Increasing Adaptive Governance Capacity for Coping with Unintended Side Effects of Digital Transformation. *Sustainability*, 12, 718. https://doi.org/10.3390/su12020718
- Houlden, V.⁺, de Albuquerque, J. P., Weich, S., & Jarvis, S. (2019) Does nature make us happier? A spatial error model of greenspace types and mental wellbeing. *Environment and Planning B: Urban Analytics and City Science*, <u>https://doi.org/10.1177/2399808319887395</u>.
- Houlden, V.⁺, de Albuquerque, J. P., Weich, S., & Jarvis, S. (2019). A spatial analysis of proximate greenspace and mental wellbeing in London. *Applied Geography*, 109, 102036. <u>https://doi.org/10.1016/j.apgeog.2019.102036</u>
- 9. Improving Health in Slums Collaborative (2019). A protocol for a multi-site, spatially-referenced household survey in slum settings: methods for access, sampling frame construction, sampling, and

field data collection. BMC Medical Research Methodology, 19:109. <u>https://doi.org/10.1186/s12874-019-0732-x</u>

- Lilford, R., Kyobutungi, C., Ndugwa, R., Sartori, J., Watson, S.I, Sliuzas, R, Kuffer, M, Hofer, T.P, Albuquerque, J.P. de & Ezeh, A. (2019). Because space matters: Conceptual framework to help distinguish slum from non-slum urban areas. *BMJ Global Health* 2019;4:e001267. <u>http://dx.doi.org/10.1136/bmigh-2018-001267</u>
- Ulbrich, P. +, Albuquerque, J.P., Coaffee, J. (2019). The Impact of Urban Inequalities on Monitoring Progress towards the Sustainable Development Goals: Methodological Considerations. *ISPRS International Journal of Geo-Information*, 8(1), 6. <u>https://doi.org/10.3390/ijgi8010006</u>
- Pitidis, V. +, Tapete, D., Coaffee, J., Kapetas, L., Albuquerque, J. P. de (2018). Understanding the Implementation Challenges of Urban Resilience Policies: Investigating the Influence of Urban Geological Risk in Thessaloniki, Greece. Sustainability 2018, Vol. 10, Page 3573, 10(10), 3573. https://doi.org/10.3390/SU10103573
- Crosby, H., Damoulas, T., Caton, A.⁺, Davis, P., Albuquerque, J. P. de, & Jarvis, S. A. (2018). Road distance and travel time for an improved house price Kriging predictor. *Geo-Spatial Information Science*, 21(3), 185–194. <u>https://doi.org/10.1080/10095020.2018.1503775</u>
- Houlden, V.⁺, Weich, S., Albuquerque, J. P. de, Jarvis, S., & Rees, K. (2018). The relationship between greenspace and the mental wellbeing of adults: A systematic review. *PLOS ONE*, 13(9), e0203000. <u>https://doi.org/10.1371/journal.pone.0203000</u>
- 15. Assis, L. F. G. de⁺, Horita, F. E. A.⁺, Freitas, E. P. de, Ueyama, J., & Albuquerque, J. P de. (2018). A Service-Oriented Middleware for Integrated Management of Crowdsourced and Sensor Data Streams in Disaster Management. *Sensors 2018, Vol. 18, Page 1689, 18*(6), 1689. <u>http://doi.org/10.3390/S18061689</u>
- Degrossi, L. C.⁺, de Albuquerque, J. P., Santos Rocha, R. dos, & Zipf, A. (2018). A taxonomy of quality assessment methods for volunteered and crowdsourced geographic information. *Transactions* in GIS, 22(2), 542–560. <u>https://doi.org/10.1111/tgis.12329</u>
- Horita, F. E. A.⁺, de Albuquerque, J. P., & Marchezini, V. (2018). Understanding the decisionmaking process in disaster risk monitoring and early-warning: a case study within a control room in Brazil. *International Journal of Disaster Risk Reduction*, 28, 22–31. http://doi.org/10.1016/j.jidrr.2018.01.034
- 18. * Restrepo-Estrada, C.+, de Andrade, S. C.+, Abe, N., Fava, M. C., Mendiondo, E. M., & de Albuquerque, J. P. (2018). Geo-social media as a proxy for hydrometeorological data for streamflow estimation and to improve flood monitoring. *Computers & Geosciences*, 111, 148–158. http://doi.org/10.1016/j.cageo.2017.10.010
- Lilford, R., Taiwo, O. J., & de Albuquerque, J. P. (2018). Characterisation of urban spaces from space: going beyond the urban versus rural dichotomy. *The Lancet Public Health*, 3(2), e61–e62. <u>http://doi.org/10.1016/S2468-2667(18)30008-2</u>
- Salles, G. B. M. J., Fantinato, M., Barros, V. A., & de Albuquerque, J. P. (2018). Evaluation of the StrAli-BPM approach : strategic alignment with BPM using agreements in different levels. *International Journal of Business Information Systems*, 27(4), 433–465.
- 21. * Horita, F. E. A.+, Albuquerque, J. P., Marchezini, V., & Mendiondo, E. M. (2017). Bridging the gap between decision-making and emerging big data sources: An application of a model-based framework to disaster management in Brazil. *Decision Support Systems*, 97, 12–22. http://doi.org/10.1016/j.dss.2017.03.001
- 22. * Albuquerque, J. P., Herfort, B. +, & Eckle, M. + (2016). The Tasks of the Crowd: A Typology of Tasks in Geographic Information Crowdsourcing and a Case Study in Humanitarian Mapping. *Remote Sensing* 2016, Vol. 8, Page 859, 8(10), (22 pp.). <u>http://doi.org/10.3390/RS8100859</u>
- Steiger, E., Resch, B., Albuquerque, J. P. & Zipf, A. (2016). Mining and correlating traffic events from human sensor observations with official transport data using self-organizing-maps. *Transportation Research Part C: Emerging Technologies*, 73, 91–104. http://doi.org/10.1016/j.trc.2016.10.010
- 24. Assis, L. F. F. G.⁺, Albuquerque, J. P. de, Herfort, B., Steiger, E., & Horita, F. E. A. (2016). Geographical Prioritization of Social Network Messages in Near Real-time Using Sensor Data Streams: An Application to Floods. *Brazilian Journal of Cartography*, 68(16), 1231–1240.
- 25. Klonner, C., Marx, S., Usón, T., **Albuquerque, J. P.**, & Höfle, B. (2016). Volunteered Geographic Information in Natural Hazard Analysis: A Systematic Literature Review of Current Approaches with

a Focus on Preparedness and Mitigation. *ISPRS International Journal of Geo-Information* 2016, Vol. 5, Page 103, 5(7), 1-20.

- 26. * Albuquerque, J. P., & Christ, M. (2015). The tension between business process modelling and flexibility: Revealing multiple dimensions with a sociomaterial approach. *The Journal of Strategic Information Systems*, 24(3), 189–202. Awarded as "Best Paper Runner Up 2015" by JSIS.
- 27. * Albuquerque, J. P., Herfort, B.+, Brenning, A., & Zipf, A. (2015). A geographic approach for combining social media and authoritative data towards identifying useful information for disaster management. *International Journal of Geographical Information Science*, 29(4), 667–689. doi:10.1080/13658816.2014.996567 (Citations: 186 in Google Scholar; 70 in Scopus)
- Horita, F. E. A.+, Albuquerque, J. P., Degrossi, L. C.+, Mendiondo, E. M., & Ueyama, J. (2015). Development of a spatial decision support system for flood risk management in Brazil that combines volunteered geographic information with wireless sensor networks. *Computers & Geosciences*, 80, 84– 94. (Citations: 103 in Google Scholar; 41 in Scopus)
- 29. Steiger, E., Albuquerque, J. P., & Zipf, A. (2015). An Advanced Systematic Literature Review on Spatiotemporal Analyses of Twitter Data. *Transactions in GIS*, 19(6), 809–834.
- 30. Albuquerque, J. P., Diniz, E. H., & Cernev, A. K. (2014). Mobile payments: a scoping study of the literature and issues for future research. *Information Development*, 1–27.
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^{*} Notice that some conferences in Computer Science have a journal-like reviewing process and are highly prestigious and competitive.

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TEACHING EXPERIENCE

Professor and Director, Institute for Global Sustainable Development, University of Warwick

• "Urban Resilience, Disasters and Data". (Spring 2019/2020). I designed this interdisciplinary postgraduate module as a core for the *MSc Humanitarian Engineering* and optional for other interdisciplinary master courses. It introduces the topics of disaster risks and urban resilience with emphasis on the use of innovative digital technologies to gather and analyse urban data. By means of a practical project and field work conducted in the city of Coventry, students will learn how to collect urban data using open-source mobile data collection software (OpenDataKit), process and analyse this data and produce an interactive digital map to visualise urban aspects related to disaster resilience (using QGIS and R).

Associate Professor, Centre for Interdisciplinary Methodologies, University of Warwick

- *"Spatial Methods and Practice in Urban Science"*. (Spring 2016/Autumn 2016/Autumn 2017/Autumn 2018): interdisciplinary postgraduate module (core for the *MSc Urban Informatics & Analytics* and for PhD Students of the *Warnick Institute for the Science of Cities*) that explores theoretical foundations of urban science and spatial analysis methods. I completely redesigned module materials and labs. Teaching methods combine lectures, practical workshops in the lab and project-based learning with hands-on experience of spatial data collection and analysis supported by open-source GIS (QGIS, R and GeoDa) to tackle a relevant urban challenge using real-world data.
- "Digital Cities: Interdisciplinary Perspectives on Urban Science" (Spring 2018): I designed this postgraduate module to introduce students to interdisciplinary perspectives on current challenges faced by cities and urban science, in order to develop a critical understanding of the role of

digital technologies, big data and urban analytics for promoting sustainable urban development in "smart city" initiatives worldwide. It employs an innovative format with invited lectures from academics and practitioners working on urban challenges from different perspectives. They are complemented by seminars that cover relevant literature and facilitate critical reflection in students from different backgrounds.

Visiting Professor, School of Business Administration of Sao Paulo, Fundação Getulio Vargas (FGV EAESP), Brazil

Centre for Studies in Public Administration and Government. Host: Prof. Dr. Maria Alexandra da Cunha.

• *"Urban Analytics for Sustainable Resilient Cities"* – Winter School intensive course for postgraduate students (July-August, 2018). Theoretical foundations of urban analytics, smart cities and spatial analysis methods. Teaching methods combine lectures, practical workshops in the lab and project-based learning with hands-on experience of spatial data collection and analysis supported by open-source GIS (QGIS, R and GeoDa) to tackle a relevant urban challenge using real-world data.

Visiting Professor, Institute of Geography, Heidelberg University, Germany

- Co-supervisor of 1 PhD student and 10 masters' students in Geography, helping to establish a concentration area around "Disaster Mapping / Volunteered Geographic Information for Humanitarian Aid".
- "Disaster Mapping 2.0: Volunteered Geographic Information (VGI) in Disaster Risk Management and Humanitarian Aid". (Summer 2013, Winter 2013, Summer 2014, Winter 2014): During my stay in Heidelberg, I designed this advanced course (Seminar) which became very popular among undergraduate and postgraduate students (mostly in Geography). It explores theoretical foundations and methods for analysis of different types of VGI: social media, collaborative maps and citizen sensors. Teaching methods combine student presentations about theoretical foundations with hands-on experience of data collection and analysis (using OpenStreetMap, Ushahidi, OpenDataKit) through group projects and exercises, in order to provide students with an understanding of the semantic heterogeneity, uncertainty and openness of volunteered geographic information, both in theory and practice.
- "Disaster Risk Mapping: interdisciplinary field course" (Winter 2013, Winter 2014) Project course for undergraduate students (Geography) with hands-on surveying and mobile data collection (OpenDataKit), as well as spatial analysis of the collected data using GIS software (QGIS). Goal of the project was the reconstruction of the flooded area of a historic flooding (1993), based on different methods: interviews with locals, mapping of material signs of floods, historic marks painted on buildings.

Invited Lecturer, University of Coimbra, Portugal

Department of Mathematics. Host: Prof. Dr. Cidália Costa Fonte.

 "HSenSIG – Human Sensor and Geographic Information Systems for Disaster Risk Management". Summer School for PhD students in Information Systems, Geoinformatics, and Computational Mathematics (forthcoming, summer 2015). Designed a workshop with conceptual foundations of VGI in disasters and practical mobile data collection exercise (using OpenStreetMap, OpenDataKit and UMap).

Invited Lecturer, University of Münster, Germany

European Research Center for Information Systems at University of Münster (Germany). Host: Prof. Dr. Bernd Hellingrath.

• *"Volunteered Geographic Information (VGI) for Disaster Risk Management"*. Doctoral seminar I conducted for PhD students in Information Systems and Geoinformatics (winter 2014). Focus on methods for analysing VGI and for conducting systematic literature reviews.

Invited Lecturer, Leuphana University of Lüneburg, Germany

Institute of Electronic Business Processes in the program "Leuphana International Lecturers" (winter 2014).

• "A sociotechnical approach to information systems": guest lectures to undergraduate students in information systems on social aspects of information systems in organisations.

Assistant Professor, University of São Paulo, Brazil

Postgraduate courses (course design and teaching):

- *"Collaborative Systems: Foundations and Applications"* (1/2015): co-convenor for the course on methods for analysing and designing collaborative systems from a sociotechnical perspective, including both empirical methods (ethnography, user studies), digital methods (e.g. clickstream analysis, social network analysis, spatial analysis) and design-oriented methods. *Course is offered completely in English.* Teaching methods include interactive classroom discussions of classical articles on collaborative systems and social computing and group projects for analysis and/or redesign of a collaborative system.
- *"Strategic Management and Business Process Management"* (2/2011): course on business process modelling and management from a sociotechnical perspective, i.e. associating technical aspects (modelling language etc.) with organisational issues. Teaching methods included interactive discussion of reference literature and individual project for analysis and modelling of a real organisation scenario. As a result, I encouraged one student group to submit their final paper for a conference and it was accepted for presentation.

Undergraduate courses (course design and teaching):

- *"Fundamentals of Information Systems"* (1/2015, 2/2012, 1/2012, 2/2011, 1/2010, 1/2009, 1/2008): basic course (lecture) in computer science and information system programmes. I adopt a sociotechnical approach to Information Systems, emphasising social and managerial aspects of information system development and use in organisations. My main teaching goal is to provide students with resources for a critical understanding of the interplay between collaborative practices and information technology. Teaching methods include interactive sessions, group work and a final assignment consisting of an analysis of a sociotechnical system of a real-world organisation. Some of the best final papers were submitted and accepted for presentation in local conferences.
- *"Project Management"* (1/2011, 1/2011, 2/2009, 2/2008): project course in computer science and information system programmes. Teaching methods included interactive discussions, student presentations, and a group project. This project was conducted together with other groups of students in universities abroad as "partially distributed teams", within the project lead by Professor Rosalie Ocker of Penn State University (United States).
- "Business Process Management" (2/2011, 1/2010, 2/2015): project course in computer science and information systems programmes. Teaching methods included interactive discussions and group projects for analysis and modelling of the processes of a real organisation.
- *"Problem solving and research methods"* (2/2009): project course for a mixed group of students from different programmes in the School of Arts, Sciences and Humanities.

Undergraduate courses (teaching):

- "Information Systems Evaluation" (2/2011): project course in the information system programme.
- "Computer Networks" (2/2010): basic course (lecture) in the information systems programme.
- *"Software Engineering"* (1/2011): basic course (lecture) in the computer science programme.

INVITED PRESENTATIONS (keynote / invited speaker, since 2010)

- Keynote Speaker, "Citizen Cities", Approaches to Transform Cities into Smart Urban Areas, 'Universities & Research Organisations – Key Drivers of Future Smart Cities' by UK Science and Innovation Network Germany (SIN), the German U15, the Imperial College London and BABLE, 9 June 2019.
- Invited Speaker, "Rethinking the role of citizen-generated data in flood resilience", European Union Joint Research Centre, Ispra/Italy, 11 November 2019.
- **Invited Speaker**, "Bridging the gap between technology and human experience", Global Symposium of Sustainable Development, University of Chicago, Chicago, 25 October 2019.
- Invited Speaker, "Urban Neighbourhood Deprivation Mapping: Combining Earth Observation and Community-based Data", Human Planet Forum, Earth Institute of Columbia University, New York, 2 October 2019.

- Invited Speaker, "Combining Earth Observations and citizen-generated data for community empowerment and enhanced slum data quality", UN-Habitat Assembly, Nairobi, Kenya, 30 May 2019.
- Invited Speaker, "Data, Resilience and Humanitarianism", Alliance PhD Summer School, Columbia University and Sorbonne, Paris, France, 28 May 2019.
- Invited Speaker, "Urban analytics and global sustainable development: a transdisciplinary methodological field", University of Liverpool, UK, 11 February 2019.
- Invited Speaker, "Urban Science: an interdisciplinary perspective", Complex Systems Meeting Towards a European University, Université de Cergy-Pointoise/Paris-Seine, France, 8 October 2018.
- Invited Speaker, "Waterproofing Data: engaging stakeholders for sustainable governance of floods for urban resilience", World Social Science Forum, Fukuoka, Japan, 26 September 2018.
- Invited Speaker, "Humanitarian Mapping", Humanitarian Engineering Girls Residence, School of Engineering, University of Warwick, 12 July 2018.
- Invited Speaker, "What can social media tell us about urban spaces?", University of Salzburg, Austria, 4 May 2018.
- Invited Speaker, "Geo-spatial mapping of health services in slums", UN World Cities Day Conference, University of Warwick, 31 October 2017.
- Invited Speaker, "Filling the gaps of our urban knowledge: Can crowd mapping and citizen participation tackle the challenges of urban resilience?", 2nd Humanitarian Engineering Symposium, University of Warwick, 3 July 2017.
- Invited Discussant, "Digital Sociology and Digital Bias: a Commentary", Practice-based studies Workshop, Warwick Business School, 28 June 2017.
- Invited Speaker, "Citizens as sensors and beyond: Modes of engagement in the production of citizen-generated urban data", Toxic Expertise Workshop, University of Warwick, May 2017.
- Invited Speaker, "UK-Brazil Collaboration on Leveraging Crowdsourced and Sensor Data to Support Decision-Making towards Urban Resilience", CEMADEN National Centre for Disaster Monitoring and Early Warning, São José dos Campos/SP, March 2017.
- Invited Speaker, "Natural Hazards and Extreme Weather Events: What is the Role of Citizen Participation and Big Data for Improving the Resilience of Cities?", Warwick World Cities Day, University of Warwick, 31 October 2016.
- Invited Speaker, "Urban Geoinformatics: QuoVadis", GI_Forum, Salzburg, Austria, 6 July 2016.
- Workshop co-chair, "Sustainable Digital Flood Memory", conducted together with Dr Joanne Garde-Hansen (CCPM, University of Warwick) at the event "Doing Nothing is Not an Option" organised by TippingPoint, Warwick Arts Centre, Coventry, UK, 17 June 2016.
- **Panel Chair**, "Can technology help to build disaster resilience in developing countries?", International Conference on Information Systems for Crisis Response and Management, Rio de Janeiro, Brazil, 23 May 2016.
- Invited Speaker, "Taking stock of volunteered geographic information for building disaster resilience", CEMADEN National Centre for Disaster Monitoring and Early Warning, São José dos Campos/SP, 19 May 2016.
- Invited Speaker, "Crowdsourcing an Urban Information Space? Potentials and Challenges of volunteered geographic information in disaster management and urban resilience", Warwick Institute for the Science of Cities Seminar Series, University of Warwick, Coventry, UK, 12 May 2016.
- Keynote Speaker, "Volunteered geographic information for improving resilience against disasters and extreme events", I COMET/ GIS Day Federal University of Lavras/UFLA, Lavras/MG, 27 November 2015.
- Invited Speaker, "Crowdsourced geographic information for better coping with disasters and extreme events", CEMADEN National Centre for Disaster Monitoring and Early Warning, São José dos Campos/SP, 13 November 2015.
- Invited Plenary Speaker, "Science, technology and innovation for disaster risk reduction under the Sendai Framework (2015-2030) and the Law 12.608 of the National Policy of Civil Protection and Defence", I CEPED Colloquium "Challenges of the academic sector for disaster risk reduction in Brazil", Public Health Department of the University of São Paulo, São Paulo/SP, 4 November 2015.

- Invited Speaker, "Crowdsourced geographic information for better coping with disasters and extreme events", Geographic Information Science lecture series, Institute of Geography of the University of Jena, Germany, 16 July 2015.
- Keynote Speaker, "Information Systems in Brazil with a Sociotechnical Approach: Computing for Brazil?", XI Brazilian Symposium of Information Systems (SBSI 2015), Goiânia/GO, 29 May 2015.
- **Panel Co-Chair**, "Crisis Management in Less Developed Countries: Climate change and beyond", International Conference on Information Systems for Crisis Response and Management, Kristiansand, Norway, 26 May 2015.
- Invited Speaker, "How to leverage social media and crowdsourcing for better coping with disasters and extreme events?", Visual Crowds Workshop, Heidelberg University, 12 Dec 2014.
- Invited Speaker, "Disaster Mapping 2.0: Naturkatastrophen und Neogeographie im Zeitalter der sozialen Medien", Graduation Ceremony of Geography (Absolventerfeier), Heidelberg Univesity, 28 Oct 2014.
- Invited Speaker, "Disaster Mapping 2.0: Naturkatastrophen und Neogeographie im Zeitalter der sozialen Medien", Pedagogische Hochschule Heidelberg, Germany, 27 Oct 2014.
- Invited Speaker, "What are the types of theory in Information Systems and what is the theoretical contribution I envisage for my research?" NexGen Workshop for PhD students of the NiTiM European Graduate School, University of Münster, Germany, 21 Oct 2014.
- Invited Speaker, "How to leverage social media and crowdsourcing for better coping with disasters and extreme events?", European Research Center on Information Systems, University of Münster, Germany, 14 Oct 2014.
- Invited Speaker, "OpenStreetMap and Disasters: from Crisis Mapping to Supporting Disaster Risk Management" OSM Forum, AGIT Conference, Salzburg, Austria, 3 Jul 2014.
- Invited Plenary Speaker, "Identifying Elements at Risk from OpenStreetMap: The Case of Flooding", State of the Map Europe 2014, Karlsruhe, Germany, 14 Jun 2014.
- Invited Plenary Speaker, "Information systems and the assessment of poverty in Brazil: reframing the globalisation of information technology with the Actor-Network-Theory", Workshop Techniken der Globalisierung: Kann die Globalgeschichte von Bruno Latour lernen? [Techniques of Globalisation: Can Global History learn from Bruno Latour?], Latin American Institute of Freie Universität Berlin, 5 Jun 2014.
- Invited Speaker, "Potentials and Challenges of Volunteered Geographic Information for Coping with Disasters", Workshop of the Crowdanalyser Graduate School, Heidelberg University, 8 May 2014.
- Invited Speaker, "Web 2.0 and Mobile Technologies for Disaster Risk Management: Potential, Challenges and Approaches in Germany and Brazil", Joint Workshop University of São Paulo-Universität Münster, University of Münster, Germany, 12 Dec 2013.
- Invited Speaker, "Web 2.0 und Social Media im Hochwassermanagement: Potenziale und Ansätze in Deutschland und Brasilien", Fachtagung "Web 2.0 und Social Media in Katastrophenschutz und Hochwassermanagement", Heidelberg University, 17 Oct 2013.
- Invited Plenary Speaker, "Collaborative Approaches and Social Media for Building Resilience against Disasters", DAAD Alumni Symposium "Earthquakes in Latin America", Lateinamerika Institut, Freie Universität Berlin, Germany, 24 Oct 2013.
- Invited Speaker, "Studying at the Institute of Mathematics and Computer Science of the University of São Paulo at São Carlos", Leuphana University of Lüneburg, Germany, 11 Sept 2013.
- Invited Speaker, "AGORA An Open Geospatial paRticipatory Architecture for Building Resilience against Disasters and Climate Change Impacts", Heidelberg University, Germany, 18 Feb 2013.
- Invited Plenary Speaker, "Using Wireless Sensor Networks for Urban Flood Risk Adaptation in Brazil", Geoinformatik 2013 Conference, Heidelberg, Germany 13 March 2013
- Invited Plenary Speaker, "AGORA An Open Geospatial paRticipatory Architecture for Building Resilience against Disasters and Climate Change Impacts", DAAD Alumni-Expert-Seminar on Environmental Issues of Renewable Energies: Hydropower and climate change, Curitiba, Brazil, 26 Nov 2012.

- Invited Plenary Speaker, "Building Resilience against Disasters by Combining Participatory Environmental Monitoring and Vulnerability Communication", Workshop "Disaster and Risk Management" organised by the German Federal Ministry for Education and Research (BMBF) parallel to CeBIT, Hannover, Germany, 07 Mar 2012
- Invited Speaker, "Challenging the Ontology of Technoscientific Artefacts: Information Systems in Developing Countries", Federal University of São Carlos, Brazil, Oct 2011.
- Invited Speaker, "Challenging the Ontology of Technoscientific Artefacts: Information Systems in Developing Countries", Workshop on Actor-Network Theory in Information Systems Research, London School of Economics and Political Science, London, UK, Jun 2010.
- Invited Speaker, "Using wireless sensor networks and web-based geographic information systems for enhancing public perception on environmental risks and subsidizing disaster management: current projects at the University of Sao Paulo", Heidelberg, Germany, Jun 2010.

POSTGRADUATE AND RESEARCHER SUPERVISION

Current supervised postdoctoral researchers

- Dr Godwin Yeboah, Senior Research Fellow at the Institute for Global Sustainable Development (funding from the NIHR Global Health Unit on Improving Health in Slums), University of Warwick.
- Dr Vangelis Pitidis, Research Fellow at the Institute for Global Sustainable Development, University of Warwick.

Current supervised PhD students:

- John Rahilly (Warwick CDT Urban Science, with Stephen Jarvis): "A Green and Pleasant Land? Investigating the Relationship between Planning Policy and Urban Green Infrastructure", conclusion expected in September 2020.
- Philipp Ulbrich (Warwick CDT Urban Science, with Jon Coaffee): "Resilience-Thinking in Critical Urban Infrastructure Governance", conclusion expected in September 2020.
- Corinne Muir (Warwick CDT Urban Science, with Greg McInerny and Rosemary Collier): "Datadriven analysis of park management practices in the UK", conclusion expected September 2020.
- Nicole Hengesbach (Warwick CDT Urban Science, with Greg McInerny): "Visualisation and Citizen Participation" [provisional title], conclusion expected in September 2021.
- Natalie Rothwell (Warwick CDT Urban Science, with Nerea Calvillo): "Social Housing and Gender", conclusion expected in September 2021.
- Maria Nicolescu (Interdisciplinary Studies, with Greg McInerny): "Visualisation and Gender", conclusion expected in September 2022.

PhD graduates

- Sidgley Camargo de Andrade (Computer Science, University of São Paulo, with Alexandre Delbem): "Mining of rainfall patterns from social media for supporting flood risk management", concluded in June 2020.
- Kamaran Sheik (Warwick Business School, with João Baptista), "An integrated view of digital and physical spaces of work in modern technology organisations", concluded in December, 2019.
- Vangelis Pitidis (Warwick EPSRC CDT Urban Science, with Jon Coaffee): "The geological dimension of urban resilience: Impact of geo-hazards in resilient urban design and policy", concluded in January 2020.
- Vikki Houlden (Warwick EPSRC CDT Urban Science, with Scott Weich and Stephen Jarvis): "The Relationship Between Mental Wellbeing and Greenspace Characteristics in the Urban Environment", successfully concluded in February 2019.
- Lívia Castro Degrossi (Computer Science, University of São Paulo, with Renata Fortes), "A Methodological Approach for Obtaining High-quality Volunteered Geographic Information applied to Flood Risk Management", successfully concluded in August 2019. Scholarship from CAPES.

- Flávio Eduardo Aoki Horita (now Assistant Professor at the Federal University of ABC, Brazil), "An Approach based on Volunteered Geographic Information and Spatial Decision Support Systems for Improving Decision-Making in Disaster Risk Management", successfully concluded in 2017, Department of Computer Systems, University of Sao Paulo. CAPES Scholarship.
- Camilo Restrepo Estrada (now Assistant Professor at University of Antioquia, Medellín, Colombia) "Reduction of the hydrological vulnerability supported by volunteered geographic information", successfully concluded in 2018, Department of Hydraulic Engineering, University of São Paulo (co-supervised with Eduardo Mario Mendiondo/School of Engineering of São Carlos).

Former supervised postdoctoral researchers at University of São Paulo

• Dr Werner Leyh (2014-2016). PDRA position funded by CAPES from the project grant ALERTA-CEPED-USP.

Member of PhD Thesis Examination Committee (external/internal examiner)

- Jennings Anderson, Contributor-Centric Analytics for OpenStreetMap: Approaches to Full Stack, Metadata-Driven Analysis Infrastructure for an Open Geo-Spatial Data Platform". Member of PhD Committee. Department of Computer Science, University of Colorado Boulder (supervisors: Leysia Palen, Kenneth Anderson), July/2019.
- Giovanni Mizzi, "Improving dengue fever surveillance with online data", Internal Examiner, Mathematics for Real-World Systems Centre for Doctoral Training, University of Warwick, June 2019.
- René Westerholt, "The Analysis of Superimposed and Heterogeneous Random Variables". External examiner (Zweitgutachter), Institute of Geography, Heidelberg University, Germany, June 2018.
- Sam Martin, "Coeliac Disease: Chronic Illness and Self-Care in the Digital Age", PhD in Interdisciplinary Studies, University of Warwick, UK, 2018.
- Martin Dittus, "Analysing Volunteer Engagement in Humanitarian Crowdmapping", 2017. External examiner, Doctor in Engineering (EngD), University College London, UK.
- Chunzhu Wei, "Multi-scale spatial analysis methods from neighborhood to megacity", 2017. External discussant, Doctor in Geoinformatics, University of Salzburg, Austria.
- Claudio Azevedo Passos, "Collaborative Virtual Environment for the training of security agents in large events", 2017. External examiner. Doctor in Informatics at Universidade Federal do Rio de Janeiro.
- Sam Hind, "Disruptive Cartographies: Manoeuvres, Risk and Navigation", 2016. Internal examiner, PhD in Interdisciplinary Studies, University of Warwick, UK.
- Bruno Santos do Nascimento. "Selection and presentation of contextual information in complex environments". 2014. External examiner, Doctor in Informatics at Universidade Federal do Rio de Janeiro.
- Francielle Silva dos Santos. "Social Based Software Engineering". 2014. External examiner, Doctor in Computer Science at Universidade Federal de Pernambuco, Brazil.
- Bruna Diirr Gonçalves da Silva. "Adaptation of Plans in unpredicted situations". 2014. External examiner, Doctor in Informatics at Universidade Federal do Rio de Janeiro.

M.Sc. thesis graduates (selected, research-intensive master courses)

- Danilo Amaral de Oliveira, "Understanding and predicting the legislative process with data science", MSc in Computer Science, University of São Paulo, concluded in January 2019.
- Benjamin Herfort, "Understanding MapSwipe: Analysing Data Quality of Crowdsourced Classifications on Human Settlements", October 2017. Master in Geography, Heidelberg, University, Germany.
- Raul Castanhari, "Integration of heterogeneous information sources for location intelligence in flood risk management", April 2016. Scholarship from CAPES.
- Luiz Fernando Assis, "Service-oriented middleware for dynamic, real-time management of heterogeneous geosensors in flood management", November 2015. Scholarship from FAPESP.

- Susanne Heuser, "Exploratory spatiotemporal and semantic Twitter data analysis for Disater risk Management: the cases of typhoon Haiyan (2013) and typhoon Hagupit (2014) (Phillipines)", November 2015.
- Robin Peters, "Exploring the role of image-based social media messages for disaster management: Comparing various social media platforms in the case of the Elbe flood 2013 in Germany", Coadvisor, M.Sc. in Geography, Heidelberg University, July 2015.
- Lívia Castro Degrossi, "An approach for obtaining and making available in real time volunteered geographic information in the context of flood risk management", M.Sc. in Computer Science, University of São Paulo, Mar 2014.
- Felipe Diniz Dalillo, "A multi-layered approach for obtaining strategic alignment in business process management", M.Sc. in Computer Science, University of São Paulo, concluded Apr 2014.
- Christoph Oberacker, "Flood Risk Awareness and Flood Precaution Measurements An GIS and Actor-based study", Co-advisor, M.Sc. in Geography, Heidelberg University, June 2014.

PROFESSIONAL AND ACADEMIC COMMUNITY SERVICE

Member of Editorial and Professional Boards

Strategic Advisory Board member, UKRI Global Challenges Research Fund (since 2020). **Member of the Future Leaders Fellowship Panel College**, UKRI (since 2020).

Editorial Board Member: Canadian Journal of Regional Science (since 2019).

Associate Editor (member of the Editorial Board), Brazilian Administration Review (BAR) (since 2018) Scientific Editorial Board (Scientific Editor): RAE – Journal of Business Administration (since 2018) Editorial Board Member: Journal Open Geospatial Data, Software and Standards/Springer (since 2015) Guest Editor, Special Issue on "Urban Informatics and Applications in Infrastructure for Sustainable

- Guest Editor, Special Issue on "Urban Informatics and Applications in Infrastructure for Sustainable Cities", Journal *Sustainability*, 2019.
- Guest Editor, Special Issue on "Crowdsourcing for Urban Geoinformatics", Journal Geo-Spatial Information Science, 2018.
- Associate Editor, Special Issue on "Information Systems and Innovation in the Public Sector", *European Journal of Information Systems*, 2018.
- President of the Special Interest Group on "Organizational Systems Research Association" of the Association of Information Systems (2015-2018)

Scientific Advisory Board Member: Fabrefactum Publisher, Belo Horizonte, Brazil (since 2010

External Examiner for Academic Institutions

- **External Examiner** for the MSc in Data and Society. ESRC Centre for Doctoral Training in Data Analytics and Society, School of Geography, University of Leeds, UK, 2020.
- External Examiner and Advisory Board Member: Information Systems Programme of the Leuphana University Lüneburg, Germany (since 2016)

Referee for Funding Agencies

Interview Panel Member, UKRI Future Leaders Fellowship 2020 round.

- Scientific panel member, Environmental Systems Programme 2020, WWTF/Vienna Science and Technology Fund (since 2020).
- **Panel member** for NERC Highlight Topics 2016 on "Innovative application of big data techniques to natural hazard prediction and risk mitigation", NERC (Natural Environment Research Council), UK.
- Ad-hoc reviewer. DFG (Deutsche Forschungsgemeinschaft), Germany, 2019.
- Ad-hoc reviewer. EPSRC (Engineering and Physical Sciences Research Council), UK, 2019.
- Ad-hoc reviewer. ESRC (Economics and Social Sciences Research Council), UK, 2018.
- Ad-hoc reviewer. Ontario Research Fund, Canada.
- Ad-hoc reviewer. NWO (Netherlands Organisation for Scientific Research), Netherlands.
- Ad-hoc reviewer. CAPES (Foundation of the Education Ministry of Brazil), Brazil.
- Ad-hoc reviewer. FAPESP (The State of São Paulo Research Foundation), Brazil.

Ad-hoc reviewer. CONICYT (Chilean National Commission of Scientific and Technological Research), Chile.

Professional Association Memberships

Fellow of the Royal Geographical Society (RGS)

Member of the Association of Information Systems (AIS)

Member of the International Association for Information Systems for Crisis Response and Management (ISCRAM)

Member of the Brazilian Computing Society (SBC)

Founding member of the Latin American Society for Science and Technology Studies (ESOCITE)

Faculty Search Committee/Panel

- University of Warwick, internal member of the panel for an Associate Professor at the Centre for Interdisciplinary Methodologies, May 2018.
- University of Warwick, internal member of the panel for an Assistant Professor at the Centre for Interdisciplinary Methodologies, May 2017.
- Leuphana University of Lüneburg, external member of the search committee for an Assistant Professor of Information Systems, December 2014.
- School of Arts, Sciences and Humanities, University of São Paulo, external member of the panel for an Assistant Professor of Information Systems and Management, April 2012.
- School of Arts, Sciences and Humanities, University of São Paulo, external member of the panel for an Assistant Professor of Software Engineering and Information Systems, Aug 2011.
- School of Arts, Sciences and Humanities, University of São Paulo, internal member of the panel for an Assistant Professor of Information Systems, Nov 2008.
- School of Arts, Sciences and Humanities, University of São Paulo, internal member of the search committee for an Assistant Professor of Information Systems, May 2008.

Organisation of scientific events

Track Co-Chair, "Geospatial Technologies and Geographic Information Science for Crisis Management", International Conference on Information Systems for Crisis Response and Management, 2018, 2019, 2020, 2021.

- Associate Editor track "E-business and E-Government", International Conference on Information Systems (ICIS), 2017, 2018.
- Programme Co-Chair International Conference on ICTs for Disaster Management, Münster, Germany, 2017.
- Workshop Co-Chair, "Spatial Urban Analytics and Crowdsourced Geographic Information for Smarter Cities", Annual Conference of the Royal Geographical Society, London, 2017.
- **Programme Committee Co-Chair** International Conference on Information Systems for Crisis Response and Management, 2016.

Co-Chair of the Special Session "Urban Geoinformatics" at GIScience Forum, Salzburg, 2016, 2017.

Track Co-Chair, Americas Conference on Information Systems: "End-User Information Systems, Innovation and Organisational Change", 2014, 2015, 2016, 2017.

Co-chair, Workshop RICH-VGI: enRICHment of volunteered geographic information (VGI). Workshop at the 18th AGILE Conference on Geographic Information Science, 2015.

- Track Co-Chair, European Conference on Information Systems: "Supply chain management in volatile and dynamic environments", 2015.
- Mini-track Co-Chair, Americas Conference on Information Systems: "Understanding and Managing IS Innovation in Collaborative Networks", 2012, 2013.

Associate Editor, European Conference on Information Systems (ECIS), 2008, 2009.

Co-Chair, Workshop A Sociotechnical Approach to Software Engineering, 2007, 2008, 2009.

Participation in Programme Committees

BigData'17 Data Science for Emergency Management Workshop, 2017.

Brazilian Conference on Geoinformatics (Geoinfo), 2017, 2018, 2019.

Brazilian Symposium on Information Systems, 2012, 2013, 2014, 2015, 2016, 2017, 2018.

IEEE International Conference on Services Computing (SSC), 2014.

- Special Interest Group on Decision Support Systems Workshop (together with the International Conference on Information Systems), 2013, 2014.
- International Workshop on Process Model Collections: Management and Reuse (PMC-MR), 2013, 2014, 2015.

International Workshop on Reuse in Business Process Management (rBPM), 2010, 2011, 2012.

International Conference on Information Technologies in Environmental Engineering (ITEE), 2013.
Workshop on Business Process Management (WBPM), Brazil, 2010, 2011, 2012, 2013, 2014.
IEEE Toronto International Conference - Science and Technology for Humanity (IEEE TIC-STH 2009) - Symposium on Human and Socio-Cultural Service Oriented Computing, 2009.

Referee of articles for journals

Computers, Environment and Urban Systems; Big Data & Society; Applied Geography; Journal of Strategic Information Systems; International Journal of Geographic Information Science; Computers & Geosciences; Transactions on Geographic Information Systems; Information Technology & People; International Journal of Human Computer Interaction; International Journal of Disaster Risk Reduction; Information Systems Frontiers; Information Systems and Management; Communications of the Association for Information Systems; International Journal of Cooperative Information Systems; Information Development; IEEE Annals of the History of Computing; URBE - Brazilian Journal of Urban Management; RBIE – Brazilian Journal of Informatics in Education; iSys – Brazilian Journal on Information Systems; RAUSP – Journal of Business Administration of the University of São Paulo; REGE – Journal of Management (University of São Paulo); RAE – Journal of Business Administration (Getulio Vargas Foudation, Brazil); RAC – Contemporary Business Administration Journal, Brazil

Reviewer of papers for conferences

International Conference on Information Systems for Crisis Response and Management (ISCRAM), 2013, 2014, 2015, 2016, 2017, 2018, 2019.

ACM CHI Conference on Human Factors in Computing Systems (CHI), 2015

Americas Conference on Information Systems (AMCIS). 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019.

European Conference on Information Systems (ECIS). 2008, 2009, 2010, 2014, 2015, 2016, 2017, 2018

Brazilian Conference on Business Administration (Enanpad), 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

International Conference on Information Resources Management (Conf-IRM), 2010, 2011 Hawaii Conference on Systems Sciences (HICSS). 2014, 2015, 2016, 2017, 2018

LANGUAGE SKILLS

Portuguese: native **English, German:** fluent, full professional proficiency in speaking, reading and writing **Spanish:** advanced proficiency in speaking, full proficiency in reading **Italian, French:** basic proficiency in speaking, full proficiency in reading

PUBLIC ENGAGEMENT AND KNOWLEDGE TRANSFER

Websites:

• <u>http://warwick.ac.uk/igsd</u>

Media Exposure in Newspapers, Magazines and Websites:

- 15 March 2020: Ciudad Hub Podcast, "Waterproofing Data", https://podcasts.apple.com/es/podcast/waterproofing-data/id1093603743?i=1000468470173
- 29 Feb 2020: Radio France, <u>http://rfi.my/5TFZ</u>
- 12 August 2018: TV interview for Rede Novo Tempo (Brazilian TV channel): <u>https://youtu.be/B2uCZcdX428</u>
- 05 July 2018: Agência FAPESP: <u>https://goo.gl/qaiKzD</u>
- 02 July 2018: News story at Correio Brasiliense: https://goo.gl/PDb86a
- 25 Jun 2018: Portal do ICMC (Press office): <u>https://goo.gl/3Ekgdx18</u>
- May 2015: Correio Brasiliense (printed newspaper), caderno Tecnologia, pp. 14: "Ajuda a distância".
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