



ERCIM "ALAIN BENSOUSSAN"
FELLOWSHIP PROGRAMME



Scientific Report

First name / Family name	Ilias O. Pappas
Nationality	Greek
Name of the <i>Host Organisation</i>	Norwegian University of Science and Technology (NTNU)
First Name / family name of the <i>Scientific Coordinator</i>	Michail N. Giannakos
Period of the fellowship	01/02/2016 to 31/01/2017

I – SCIENTIFIC ACTIVITY DURING YOUR FELLOWSHIP

During the period of this fellowship research was conducted on big data and business analytics, user experience, user behaviour, and computing education. The research activity started during this fellowship examines how big data and business analytics tools are reshaping contemporary companies. The focus is on how companies should optimally deploy and exploit big data as part of their competitive strategies, as well as how the analytic methods, tools, and techniques are best utilized for supporting business operations. Multiple activities have been organized in this area, including a special issue and chairing of tracks on international conferences in the area of information systems.

Further, a part of the research conducted during this fellowship includes the examination of user experience and behaviour in multiple contexts, including online services, e-commerce, social media, mobile learning and more. Finally, research has been conducted on the area of Computer Science education, focusing on the identification of factors that influence students intention to drop out form their studies, as well as the identification of gender differences.

The following list of publications reflects the scientific activity conducted during this fellowship.

II – PUBLICATION(S) DURING YOUR FELLOWSHIP

1. Mikalef, P., Pappas, I.O., Krogstie, J., & Giannakos, M.N. (2017). Big data analytics capabilities: A systematic literature review and research agenda. *Information Systems and e-Business Management*. (forthcoming)
2. Pappas, I.O., Giannakos, M., & Mikalef, P. (2016). Investigating Students' Use and Adoption of with-Video Assignments: Lessons Learnt for Video-Based Open Educational Recourses. *Journal of Computing in Higher Education*. (forthcoming)
3. Pappas, I.O., Giannakos M.N., Jaccheri, L., & Sampson, D. (2016). Assessing student behavior in computer science education with an fsQCA approach: The role of gains and barriers. *ACM Transactions on Computing Education (TOCE)*. (forthcoming)
4. Błachnio, A., Przepiorka, A, Benvenuti, M., Cannata, D., Ciobanu, A.M., Senol-Durak, E., Durak, M., Giannakos, M.N, Mazzoni, E., Pappas, I.O., Popa, C., et al. (2016). An international perspective on Facebook intrusion. *Frontiers in Psychology*, 242, 385-387.
5. Pappas, I.O., Kourouthanassis P.E., Giannakos, M.N., & Lekakos, G. (2016). The interplay of online shopping motivations and experiential factors on personalized ecommerce: a complexity theory approach. *Telematics and Informatics*. (in press) doi: 10.1016/j.tele.2016.08.021
6. Giannakos M.N., Pappas, I.O., Jaccheri, L., & Sampson, D. (2016). Understanding Students' Retention in Computer Science Education: The Role of Environment, Gains, Barriers and Usefulness. *Education and Information Technologies*. (in press) doi:10.1007/s10639-016-9538-1

International Conferences

1. Pappas, I.O., Cetusic, L., Giannakos, M.N. & Jaccheri, L., (2017). Mobile Learning Adoption through the lens of complexity theory and fsQCA. In proceedings of the *IEEE Global Engineering Education Conference (EDUCON2017)*. Athens, Greece.
2. Giannakos, M.N., Aalberg, T., Divitini, M., Jaccheri, L., Mikalef, P., Pappas, I.O., & Sindre, G. (2017). Identifying Dropout Factors in Information Technology Education: A Case Study. In proceedings of the *IEEE Global Engineering Education Conference (EDUCON2017)*. Athens, Greece.
3. Pappas, I.O., Aalberg, T., Giannakos, M.N., Jaccheri, L., Mikalef, P., & Sindre, G. (2016). Gender Differences in Computer Science Education: Lessons Learnt from an Empirical Study at NTNU. In proceedings of the *Norwegian Conference on Education and Didactics in IT*. Bergen, Norway.
4. Pappas, I.O., Mikalef, P., Giannakos, N. M., Krogstie, J., & Lekakos, G. (2016). Social Media and Analytics for Competitive Performance: A Conceptual Research Framework. In Proceedings of the *Workshop on big Data and Business Analytics Ecosystems (DeBASE 2016), BIS2016, Lecture Notes in Business Information Processing (LNBIP)*. Springer International Publishing. Leipzig, Germany.
5. Pappas, I.O., Mikalef, P., & Giannakos, M. (2016). User Experience in Personalized E-Commerce: A Configurational Approach. In proceedings of the

- 22nd Americas Conference on Information Systems (AMCIS 2016). San Diego, USA.
6. Mikalef, P., Pappas, I.O., & Giannakos, M. (2016). Consumer Intentions on Social Media: A fsQCA Analysis of Motivations. In proceedings of the 15th IFIP Conference on e-Business, e-Services and e-Society (pp. 371-386). Springer International Publishing.
 7. Leftheriotis, I., Giannakos, M.N., & Pappas, I.O. (2016) Social Media Use for Work: Does Work Experience Really Matter? In proceedings of the 10th Mediterranean Conference on Information Systems (MCIS 2016). Paphos, Cyprus
 8. Mikalef, P., Pappas, I.O., Giannakos, N. M., Krogstie, J., & Lekakos, G. (2016). Big Data and Strategy: A research framework. In proceedings of the 10th Mediterranean Conference on Information Systems (MCIS 2016). Paphos, Cyprus.
 9. Pappas, I.O., Giannakos M.N., & Jaccheri, L. (2016). Investigating factors influencing students' intention to dropout computer science studies. In proceedings of the 21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016). Arequipa, Peru.
 10. Kourouthanassis, P.E., Pappas I.O., Bardaki, C., & Giannakos, M.N. (2016). A matter of trust and emotions: A complexity theory approach to explain the adoption of e-government services. In proceedings of the 24th European Conference on Information Systems (ECIS 2016). Istanbul, Turkey.
 11. Pappas, I.O., Giannakos, M., Sampson, D. (2016). Making Sense of Learning Analytics with a Configurational Approach. In Proceedings of the workshop on Smart Environments and Analytics in Video-Based Learning (SE@VBL), LAK2016.
 12. Pappas, I.O., Mikalef, P., & Giannakos, M. (2016). Video-Based Learning Adoption: A typology of learners, In Proceedings of the workshop on Smart Environments and Analytics in Video-Based Learning (SE@VBL), LAK2016.

Editing

1. Guest Editor in the Special Issue on Big Data and Business Analytics Ecosystems on the Journal of Information Systems and e-Business Management.
http://static.springer.com/sgw/documents/1543273/application/pdf/10257_CfP_ISE_B_Big+Data+and+Business+Analytics+Ecosystems.pdf

III – ATTENDED SEMINARS, WORKSHOPS, CONFERENCES

International Conferences

1. Norwegian Conference on Education and Didactics in IT (NIKT 2016). November 2016, Bergen, Norway
2. 15th IFIP Conference on e-Business, e-Services and e-Society (I3E 2016), September 2016, Swansea, UK
3. 10th Mediterranean Conference on Information Systems (MCIS 2016). September 2016 Paphos, Cyprus.
4. 22nd Americas Conference on Information Systems (AMCIS 2016). August 2016, San Diego, USA.
5. 21st Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016), July 2016, Arequipa, Peru.

6. 19th International Conference on Business Information Systems (BIS 2016), July 2016, Leipzig, Germany
7. 24th European Conference on Information Systems (ECIS 2016), June 2016, Istanbul, Turkey
8. 6th International Learning Analytics & Knowledge Conference (LAK 2016), April 2016, Edinburgh, UK.

Track Chair on International Conferences and Organization of Workshops

1. ECIS 2017, 25th European Conference of Information Systems, Guimarães, Portugal, June 2017, Chair on the Track “[Big Data Analytics and Business Transformation](http://www.ecis2017.eu/wp-content/uploads/2016/05/ECIS2017-T04.pdf)” <http://www.ecis2017.eu/wp-content/uploads/2016/05/ECIS2017-T04.pdf>
2. AMCIS 2017, 23rd Americas Conference of Information Systems, Boston, USA, August 2017, Chair on the Mini-Track “Big Data and Business Transformation” <https://amcis2017.aisnet.org/submissions/track-descriptions/#toggle-id-4>
3. BIS2017, 20th International Conference on Business Information Systems, Poznan, Poland, June 2017, 2nd Workshop on Big Data and Business Analytics Ecosystems <http://bis.kie.ue.poznan.pl/bis2017/workshops/ideate-2017/>
4. BIS2016, 19th International Conference on Business Information Systems, Poznan, Poland, June 2016, 1st Workshop on Big Data and Business Analytics Ecosystems <http://bis.kie.ue.poznan.pl/bis2016/workshops/debase-2016/>
5. MCIS2016, 10th Mediterranean Conference on Information Systems, Paphos, Cyprus, September 2016, Chair on the Track “Big Data and Business Analytics Ecosystems” <http://mcis2016.eu/tracks-2/>

IV – RESEARCH EXCHANGE PROGRAMME (REP)

VTT technical Research Centre of Finland and the Center of Ubiquitous Computing at Oulu University, Oulu, 3-7 October 2016, Finland

During my visit at VTT I met with Dr. Martin Varela and we discussed research cooperation possibilities. I presented him my work and my research interests, and we found common ground for joint research in the future. Also, during my REP in Oulu, I visited Professor Vassilis Kostakos, Director of the Center of Ubiquitous Computing at Oulu University. He introduced me to his group, where the members of the group talked about their current research activities, including research articles and projects. I presented my work and research interests to the group in order to find common ground for future research.