

Presentation of the paper “Interaction design principles in WYRED platform” in HCII 2017

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Abstract

This is the presentation of the paper entitled “Interaction design principles in WYRED platform” in the Emerging interactive systems for education session at the HCI International 2017 Conference, held in Vancouver, Canada, 9 - 14 July 2017.

This work presents the requirements elicitation phase for the WYRED platform. WYRED (netWorked Youth Research for Empowerment in the Digital society) is a European H2020 Project that aims to provide a framework for research in which children and young people can express and explore their perspectives and interests in relation to digital society, but also a platform from which they can communicate their perspectives to other stakeholders effectively through innovative engagement processes. The requirement elicitation is a basic step to design the interactive mechanism to build up the needed social dialog among the involved stakeholders. In order to set up the right interactive tasks, not only functional requirements are elicited, the non-functional requirements play a key role in this project, specially regarding to ensure the security and privacy of the underage people that will be presented in the development of this project.

Keywords

WYRED; Social structure; Inequalities; Social mobility; Interethnic relations; Communication networks; Media; Information Society; Innovation policy; Technological ecosystems; Requirement Elicitation; Non-functional Requirements; Privacy

Link to the presentation

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References

- Alonso de Castro, M.G.: Educational projects based on mobile learning. *Education in the Knowledge Society* 15, 10-19 (2014)
- Balduino, R.: Introduction to OpenUP (Open Unified Process). Eclipse Foundation (2007)
- Blanke, T., Hedges, M.: Scholarly primitives: Building institutional infrastructure for humanities e-Science. *Future Generation Computer Systems* 29, 654-661 (2013)
- Dini, P., Darking, M., Rathbone, N., Vidal, M., Hernández, P., Ferronato, P., Briscoe, G., Hendryx, S.: The digital ecosystems research vision: 2010 and beyond. European Commission (2005)

- European Commission: Digital Ecosystems: The New Global Commons for SMEs and local growth. (2006)
- Florio, L., Reilly, S., Demchenko, Y., Varga, T., Harangi, G.: Advancing technologies and federating communities: a study on authentication and authorisation platforms for scientific resources in Europe. European Commission (2012)
- García-Holgado, A., García-Peñalvo, F.J., Hernández-García, Á., Llorens-Largo, F.: Analysis and Improvement of Knowledge Management Processes in Organizations Using the Business Process Model Notation. In: Palacios-Marqués, D., Ribeiro Soriano, D., Huarng, K.H. (eds.) *New Information and Communication Technologies for Knowledge Management in Organizations*. 5th Global Innovation and Knowledge Academy Conference, GIKA 2015, Valencia, Spain, July 14-16, 2015, Proceedings, pp. 93-101. Springer International Publishing, Switzerland (2015)
- García-Holgado, A., García-Peñalvo, F.J.: Architectural pattern for the definition of eLearning ecosystems based on Open Source developments. In: Sierra-Rodríguez, J.L., Dodero-Beardo, J.M., Burgos, D. (eds.) *Proceedings of 2014 International Symposium on Computers in Education (SIIE)*, Logrono, La Rioja, Spain, 12-14 Nov. 2014, pp. 93-98. Institute of Electrical and Electronics Engineers, USA (2014)
- García-Holgado, A., García-Peñalvo, F.J.: The evolution of the technological ecosystems: An architectural proposal to enhancing learning processes. In: García-Peñalvo, F.J. (ed.) *Proceedings of the First International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'13)* (Salamanca, Spain, November 14-15, 2013), pp. 565-571. ACM, New York, NY, USA (2013)
- García-Peñalvo, F.J.: En clave de innovación educativa. Construyendo el nuevo ecosistema de aprendizaje. I Congreso Internacional de Tendencias en Innovación Educativa, CITIE 2016, Arequipa, Perú (2016)
- García-Peñalvo, F.J.: Issue on Visual Analytics. *Journal of Information Technology Research* 8, iv-vi (2015)
- García-Peñalvo, F.J.: Technological Ecosystems. *IEEE Revista Iberoamericana de Tecnologías del Aprendizaje* 11, 31-32 (2016)
- García-Peñalvo, F.J.: The WYRED Project: A Technological Platform for a Generative Research and Dialogue about Youth Perspectives and Interests in Digital Society. *Journal of Information Technology Research* 9, vi-x (2016)
- García-Peñalvo, F.J.: Project status overview: 2nd Project Meeting. Retrieved from <https://repositorio.grial.eu/handle/grial/857> (2017)
- García-Peñalvo, F.J., Colomo-Palacios, R., Hsu, J.Y.J.: Discovering Knowledge through Highly Interactive Information Based Systems Foreword. *Journal of Information Science and Engineering* 29, (2013)
- García-Peñalvo, F.J., Durán-Escudero, J.: Interaction design principles in WYRED platform. In: Zaphiris, P., Ioannou, A. (eds.) *Learning and Collaboration Technologies. Technology in Education*. 4th International conference, LCT 2017. Held as Part of HCI International 2017, Vancouver, BC, Canada, July 9–14, 2017. Proceedings, Part II, pp. 371-381. Springer International Publishing, Switzerland (2017)
- García-Peñalvo, F.J., García-Holgado, A. (eds.): *Open Source Solutions for Knowledge Management and Technological Ecosystems*. IGI Global, Hershey PA, USA (2017)
- García-Peñalvo, F.J., Hernández-García, Á., Conde-González, M.Á., Fidalgo-Blanco, Á., Sein-Echaluce Lacleta, M.L., Alier-Forment, M., Llorens-Largo, F., Iglesias-Pradas, S.: Learning services-based technological ecosystems. In: Alves, G.R., Felgueiras, M.C. (eds.) *Proceedings of the Third International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'15)* (Porto, Portugal, October 7-9, 2015), pp. 467-472. ACM, New York, USA (2015)
- García-Peñalvo, F.J., Hernández-García, Á., Conde, M.Á., Fidalgo-Blanco, Á., Sein-Echaluce, M.L., Alier-Forment, M., Llorens-Largo, F., Iglesias-Pradas, S.: Enhancing Education for the Knowledge Society Era with Learning Ecosystems. In: García-Peñalvo, F.J., García-Holgado, A. (eds.) *Open Source Solutions for Knowledge Management and Technological Ecosystems*, pp. 1-24. IGI Global, Hershey PA, USA (2017)
- García-Peñalvo, F.J., Johnson, M., Ribeiro Alves, G., Minovic, M., Conde-González, M.Á.: Informal learning recognition through a cloud ecosystem. *Future Generation Computer Systems* 32, 282-294 (2014)
- García-Peñalvo, F.J., Kearney, N.A.: Networked youth research for empowerment in digital society. The WYRED project. In: García-Peñalvo, F.J. (ed.) *Proceedings of the Fourth International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'16)* (Salamanca, Spain, November 2-4, 2016), pp. 3-9. ACM, New York, NY, USA (2016)
- García-Peñalvo, F.J., Kearney, N.A.: Presenting the WYRED project at TEEM 2016 Conference. Retrieved from <https://repositorio.grial.eu/handle/grial/731>. doi:10.5281/zenodo.208223. (2016)

- García-Peñalvo, F.J., Rodríguez-Conde, M.J., Seoane-Pardo, A.M., Conde-González, M.Á., Zangrando, V., García-Holgado, A.: GRIAL (GRUpo de investigación en InterAcción y eLearning), USAL. IE Comunicaciones. *Revista Iberoamericana de Informática Educativa* 85-94 (2012)
- Gómez-Aguilar, D.A., García-Peñalvo, F.J., Therón, R.: *Análítica Visual en eLearning*. *El Profesional de la Información* 23, 236-245 (2014)
- Gómez-Aguilar, D.A., Hernández-García, Á., García-Peñalvo, F.J., Therón, R.: Tap into visual analysis of customization of grouping of activities in eLearning. *Computers in Human Behavior* 47, 60-67 (2015)
- González-Torres, A., García-Peñalvo, F.J., Therón, R.: How Evolutionary Visual Software Analytics Supports Knowledge Discovery. *Journal of Information Science and Engineering* 29, 17-34 (2013)
- González-Torres, A., García-Peñalvo, F.J., Therón, R.: Human-computer interaction in evolutionary visual software analytics. *Computers in Human Behavior* 29, 486-495 (2013)
- Gustavsson, R., Fredriksson, M.: Sustainable Information Ecosystems. In: Garcia, A., Lucena, C., Zambonelli, F., Omicini, A., Castro, J. (eds.) *Software Engineering for Large-Scale Multi-Agent Systems*, pp. 123-138. Springer, Berlin, Heidelberg (2003)
- Jansen, S., Finkelstein, A., Brinkkemper, S.: A Sense of Community: A Research Agenda for Software Ecosystems. 31st International Conference on Software Engineering - Companion Volume, 2009. ICSE-Companion 2009. Vancouver, BC, 16-24 May 2009, pp. 187-190. IEEE, USA (2009)
- Keim, D.A., Andrienko, G., Fekete, J., Görg, C., Kohlhammer, J., Melançon, G.: Visual analytics: Definition, process, and challenges. In: Kerren, A., Stasko, J., Fekete, J., North, C. (eds.) *Information visualization*, pp. 154-175. Springer, Berlin, Heidelberg (2008)
- Keim, D.A., Mansmann, F., Schneidewind, J., Ziegler, H.: Challenges in Visual Data Analysis. *Proceedings of the Tenth International Conference on Information Visualization*, 2006. London, England. 5-7 July 2006, pp. 9-16. IEEE, USA (2006)
- Pohl, K.: Requirements Engineering: An Overview. In: Kent, A., Williams, J. (eds.) *Encyclopedia of Computer Science and Technology*, vol. 36. Marcel Dekker, New York, USA (1997)
- Sánchez Prieto, J.C., Olmos Migueláñez, S., García-Peñalvo, F.J.: Understanding mobile learning: devices, pedagogical implications and research lines. *Education in the Knowledge Society* 15, 20-42 (2014)
- Sánchez Prieto, J.C., Olmos Migueláñez, S., García-Peñalvo, F.J.: ¿Utilizarán los futuros docentes las tecnologías móviles? Validación de una propuesta de modelo TAM extendido. *RED-Revista de Educación a Distancia* 52, Artículo 5 (2017)
- Sánchez Prieto, J.C., Olmos-Migueláñez, S., García-Peñalvo, F.J.: A TAM based tool for the assessment of the acceptance of mobile technologies among teachers. *GRIAL Research Group / University of Salamanca* (2016)
- Sánchez-Prieto, J.C., Olmos-Migueláñez, S., García-Peñalvo, F.J.: MLearning and pre-service teachers: An assessment of the behavioral intention using an expanded TAM model. *Computers in Human Behavior* 72, 644-654 (2017)
- WYRED Consortium.: WYRED Research Cycle Infographic. European Union: WYRED Consortium. Retrieved from <https://repositorio.grial.eu/handle/grial/839>. doi:10.5281/zenodo.572622 (2017)
- WYRED Consortium.: WYRED Research Cycle Overview Infographic. European Union: WYRED Consortium. Retrieved from <https://repositorio.grial.eu/handle/grial/840>. doi:10.5281/zenodo.572633 (2017)
- WYRED Consortium.: *Requirements Document (WP3_D3.1)*. European Union: WYRED Consortium. doi:10.5281/zenodo.292978. (2017)