



Research Outputs 2016

JOURNAL ARTICLES

Beelders, T.R., Du Plessis, J.L. 2016. Syntax highlighting as an influencing factor when reading and comprehending source code. *Journal of Eye Movement Research* 9(1):1, 1-11.

Blignaut, P.J. 2016. Development of a gaze-controlled support system for a person in an advanced stage of multiple sclerosis: a case study. *Universal Access in the Information Society* 15(3): 1-14.

Blignaut, P.J. 2016. Idiosyncratic feature-based gaze mapping. *Journal of Eye Movement Research* 9(3):2, 1-19.

Blignaut, P.J., Dednam, H.E., Nkalai, T.S. 2016. Computer ownership and usage as predictors of computer literacy of South African students. *Perspectives on Global Development and Technology* 15: 638-664.

Du Plessis, J.L., Blignaut, P.J. 2016. Performance of a simple remote video- based eye tracker with GPU acceleration. *Journal of Eye Movement Research* 9(4):6, 1-11.

Kotzé, J.E. 2016. 'n Oorsig van grootdata- en datawetenskaponderrig aan Suid-Afrikaanse universiteite. *Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie* 35(1): 1-10.

Omole, D.O., Badejo, A.A., Ndambuki, J.M., **Musa, A.G.**, Kupolati, W.K. **2016.** Analysis of auto-purification response of the Apies River, Gauteng, South Africa, to treated wastewater effluent. *Water SA* 42(2): 225-231.

Pachagadu, S., **Nel, L. 2016.** A customized framework for effective podcast integration in a South African higher education environment. *Progressio* 38(1): 14-32.

Van der Linde, I., Kotzé, J.E. Dollman, G. 2016. Vergelyking van sentiment-analise tegnieke vir 'n sosialemedia-grootdatastel. *Suid-Afrikaanse Tydskrif vir Wetenskap en Kuns* 35(1):1-2.

Wium, D.J., Van Soelen, B. 2016. Autocal: a software application for calibrating photometric data. *South African Journal of Science* 112(3/4): 59-66.

CONFERENCE PROCEEDINGS

Beelders, T.R., Du Plessis, J.L. 2016. The influence of syntax highlighting on scanning and reading behavior for source code. In: *Proceedings of the South African Institution of Computer Scientists and Information Technologists (SAICSIT) 2016*. 26-28 Sept. pp. 1-10

Boshoff, H., **Beelders, T.R.**, Van Der Schyff, A. 2016. Redesigning a radio station website through a multi-method experiment. In: *Proceedings of the 28th Annual Conference of the South African Institute of Management Scientists*. Pretoria, South Africa. pp. 229-244.

Botma, E. Kotzé, J.E. 2016. *Feasibility of a low-cost computing cluster in comparison to a high-performance computing cluster: A developing country perspective*. Paper presented at the 2016 International Conference on Information Resources Management Cape Town, South Africa. 18-20 May. pp. 1-15.

Gichamba, A., Waiganjo, P., Orwa, D., **Wario, R.D., Ngari, B.I.** 2016. Prototyping mAgriculture applications among smallholder farmers. In: *Proceedings of the Africa Institute of Science and Technology (IST-Africa) 2016*. 11-13 May. pp. 1-7.

Kotzé, J.E., Goede, R. 2016. Preparing postgraduate students for industry without neglecting scholarly development: using project-based learning and design science research to develop a software artefact. In: *Proceedings of the 7th Annual International Conference on Computer Science Education: Innovation and Technology (CSEIT 2016)* Singapore. 10-11 Oct. pp. 57-64.

Oboko, R.O., Maina, E.M., Waiganjo, P.W., Omwenga, E.I., **Wario, R.D.** 2016. Designing adaptive learning support through machine learning techniques. In: *Proceedings of the Africa Institute of Science and Technology (IST-Africa) 2016 Conference* Durban, South Africa. 11-13 May. pp. 1-9.

Radebe, F., Nel, E. 2016. *Effective integration of a student response system in an Undergraduate Computer Science classroom: an active-engagement instructional strategy*. Paper presented at the 45th Annual Conference of the South African Computer Lecturers Association (SACLA). 5-6 Jul. Cullinan, South Africa. pp. 95-103.

Venter, M.I., De Wet, L. 2016. Continuance use intention of primary school learners towards mobile mathematical applications. In: *Proceedings of the Frontiers in Education (FIE) 2016: The Crossroads of Engineering and Business Conference*. Erie, USA. pp. 1-9.

Venter, M.I., De Wet, L. 2016. Perceived enjoyment of educational mathematical applications. In: *Proceedings of the Institute of Science and Technology Education (ISTE) Conference on Mathematics, Science and Technology education*. 23-28 Oct. pp. 112-119.

Venter, M.I., De Wet, L., Swart, A.J. 2016. Perceptions of parents and teachers towards the use of mobile apps for mathematical education. In: *Proceedings of the Institute of Science and Technology Education (ISTE) Conference on Mathematics, Science and Technology education*. Phalaborwa, South Africa. 24- 28 Oct. pp. 641-651.

Verkijika, S., De Wet, L. 2016. E-government development in Sub-Saharan Africa: relationship with macro level indices and possible implications. In: *Proceedings of the Institute of Science and Technology (IST-AFRICA) 2016*. 11- 13 May. pp. 1-10.

Wario, R.D., Irere, B.N., De Wet, L. 2016. An evaluation of iPad as a learning tool in higher education within a rural catchment: A case study at a South African university. In: *Proceedings of the International Conferences*. Melbourne, Australia. pp. 91-99.

CHAPTERS IN BOOKS

Irere, B.N., Omwenga, E.I., Oboko, R., **Wario, R.D.** 2016. Developing pedagogical skills for teachers: a learner centered approach for a technology supported instruction. In: *Handbook of research on learner centered pedagogy in teacher education and professional development*, edited by J. Keengwe and G. Onchwari. Pennsylvania, USA: IGI Global. pp. 128-144.

Irere, B.N., Omwenga, E.I., Oboko, R., **Wario, R.D.** 2016. Mobile learning: Format and packaging for centered pedagogy. In: *Handbook of research on transformative digital content and learning technologies*, edited by P.H. Bull and J. Keengwe. Pennsylvania, USA: IGI Global. pp. 329-344.

PAPERS AND POSTERS

Brown, R.W., Blignaut, P.J., Huysamen, C.A. 2016. The importance of applying established website design principles on an online performance management system. ACU HRM Network Conference, 16 October 2016.

Dednam, E.H., Blignaut, P.J. 2016. Gaze behavior that gives a badminton player an edge over an opponent. World Congress of Performance Analysis of Sport, 16-18 November 2016.

Janse van Rensburg, S.L., De Wet, L. 2016. Die bestuur en beheer van gholfkaretjies vir IT-dienslewering op 'n universiteitskampus. Studentesimposium in die natuurwetenskappe, Potchefstroom, Suid-Afrika, 27-28 Oktober 2016.

Pretorius, A., **Kotzé, J.E.,** Kruger, E. **2016.** Tweeting and environmental awareness: social media's contribution. In: *Proceedings of the Centenary Conference of the Society of South African Geographers* Stellenbosch, South Africa, 25-28 September 2016.

Ireri, B.N., Wario, R.D. 2016. How a learner's attention influences engagement and learning in a mobile classroom. 10th Annual University of Kwazulu-Natal Teaching and Learning in Higher Education Conference, 20-22 September 2016.

Ireri, B.N., Wario, R.D. 2016. An evaluation of perceived ease of use, engagement and learning using iPad in rural South African university. 45th Annual Conference of the Southern African Computing Lecturers' Association, 5-6 July 2016.