

CRAWFORD, I. and EZENKWU, P. [2024]. *COIL Match Maker: a new software application to facilitate COIL collaboration*. To be presented at the 6th International virtual exchange conference (IVEC 2024), 21-24 October 2024, [virtual event].

COIL Match Maker: a new software application to facilitate COIL collaboration.

CRAWFORD, I. and EZENKWU, P.

2024

IVEC 2024 Submission

Authors:

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Izzy's qualifications include an MA(Hons) Social Science and postgraduate certificates in Public Relations, Higher Education Learning and Teaching, and Research Methods. She is currently studying for a PhD in the field of Collaborative Online International Learning (COIL), is an Accredited Member and Fellow of the Chartered Institute of Public Relations, and a Fellow of the Higher Education Academy in the UK.

Dr Pascal Ezenkwu
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Pascal is a Business Analytics lecturer at the School of Creative and Cultural Business, Robert Gordon University. He has a BEng in Computer Engineering and an MEng in Computer Engineering. He obtained a PhD in Engineering, specialising in autonomous artificial intelligence, from the University of Aberdeen, where he worked as a Postdoctoral Research Fellow before joining RGU in 2023. Recognised as a Global Talent in AI by the Royal Academy of Engineering, UK, in 2022, Pascal has developed practical experience with several industrial and interdisciplinary research projects involving the successful applications of AI with businesses, including companies such as BP and ANSA Data Analytics, UK.

Abstract ID :
IVEC53

Submission Track*
VE in Action

Track description: Case studies and practice reports, explorations of the use of innovative pedagogies and technologies, and accounts of student experiences.

Submission Type*
Asynchronous Flash Presentations

Submission type description: Flash Presentations are a set of concisely prepared, unnarrated slides, infographics, posters, or other visual materials that will be shared with participants asynchronously. Slide decks will be limited to 10 slides (excluding a cover slide, references, and contact information). Proposals should include an outline of the presentation topic and content shared, plus 2 questions/discussion prompts that the author(s) would like to pose to attendees to spark further conversation on the presentation topic. Authors should also indicate up to 3 specific key words/themes that their session will explore.

Title*
COIL Match Maker - A new software application to facilitate COIL collaboration

Abstract*(Up to 300 Words)

This project can be categorized under the heading of Collaborative Online International Learning (COIL) which is part of the emerging field of Globally Networked Learning or Virtual Exchange, which involves educational initiatives using technology to facilitate

cost-effective communication and collaboration across cultures. This type of experiential learning promotes intercultural competence, as well as the attitudes and reflective behavioural skills which are vital for a globalised economy.

While some institutions have dedicated time and resources to promote and facilitate COIL projects and partnerships, others do not. This can create an imbalance in the accessibility, type, and quality of COIL activity globally, potentially limiting the educational opportunities that COIL presents.

COIL Match Maker is a proposed new AI-powered software application that is designed to make the process of finding a COIL partner and creating a COIL project faster, simpler, and more accessible, regardless of location, prior experience, or available institutional support. The application is algorithmic and will recommend potential COIL partners based on user-generated responses to a series of questions. It will also provide a step-by-step guide to making connections and creating a COIL project.

The Flash Presentation will provide a visual description of the proposed COIL Match Maker application and ask conference participants to give asynchronous feedback on its content and design. This information will then be used to inform the development of the application.

Sources, Citations, and/or Resources(Up to 600 Words)

Boukredera, F.S., Youcefi, M.R., Hadjadj, A., Ezenkwu, C.P., Vaziri, V. and Aphale, S.S., 2023. Enhancing the drilling efficiency through the application of machine learning and optimization algorithms. *Engineering Applications of Artificial Intelligence*, [e-journal] 126, 107035.

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Crawford, I., Tupper, J., & Oksanen, E. (2022, October). Collaborative online international learning and biodiversity education across the Arctic Circle. Presented at 2022 Arctic Circle assembly, Reykjavik, Iceland

Crawford, I. (2021). Employer perspectives on virtual international working: essential skills for the globalised, digital workplace. In S. Swartz, B. Barbosa, I. Crawford, & S. Luck (Eds.), *Developments in virtual learning environments and the global workplace* (178-204). Hershey, PA: IGI Global. <https://doi.org/10.4018/978-1-7998-7331-0.ch010> Web of Science Book Citation Index.

Crawford, I. (2021, July). Re-thinking digital skill development post COVID 19: views from the workplace. Presented at 13th international conference on Education and new learning technologies 2021 (EDULEARN 2021), [virtual conference]

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Ezenkwu, C.P., Guntoro, J., Starkey, A., Vaziri, V. and Addario, M., 2023. Automated well-log pattern alignment and depth-matching techniques: An empirical review and recommendations. *Petrophysics*, 64(1), pp.115-129.

Ezenkwu, C.P., 2023. Towards expert systems for improved customer services using ChatGPT as an inference engine. 2023 IEEE International Conference on Digital Applications, Transformation & Economy (ICDATE), Miri, Sarawak, Malaysia, pp. 1-5, doi: 10.1109/ICDATE58146.2023.10248647.

Ezenkwu, C.P., Stephen, B.U.-A., Affiah, I. and Daniel, B., 2023. A Green AI Model Selection Strategy for Computer-Aided Mpox Detection. In: 2023 IEEE AFRICON, pp.1-6. IEEE.

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Eze, U.P., Ezenkwu, C.P. and Etteh, C.C., 2021. Community informatics for sustainable management of pandemics in developing countries: A case study of COVID-19 in Nigeria. *Ethics, Medicine and Public Health*, [e-journal] 16, 100632.

Ezenkwu, C.P., Akpan, U.I. and Stephen, B.U.-A., 2021. A class-specific metaheuristic technique for explainable relevant feature selection. *Machine Learning with Applications*, 6, 100142.

Ezenkwu, C.P. and Starkey, A., 2019. Unsupervised temporospatial neural architecture for sensorimotor map learning. *IEEE Transactions on Cognitive and Developmental Systems*, 13(1), pp.223-230.

Ezenkwu, C.P. and Starkey, A., 2019. Machine autonomy: definition, approaches, challenges and research gaps. In: *Intelligent Computing-Proceedings of the Computing Conference*. Springer, pp.335-350.

Luck, S., & Crawford, I. (2021, March). Defining leadership: lessons from a virtual international team. Presented at 8th Annual interdisciplinary symposium: a teaching and research conference for free market intellectuals and academic diversity in higher education 2021, [virtual conference]

Swartz, S., Barbosa, B., Crawford, I., & Luck, S. (Eds.). (2021). *Developments in virtual learning environments and the global workplace*. Hershey, PA: IGI Global. <https://doi.org/10.4018/978-1-7998-7331-0> Web of Science Book Citation Index.

Swartz, S., Barbosa, B., & Crawford, I. (2020). Building intercultural competence through virtual team collaboration across global classrooms. *Business and Professional Communication Quarterly*, 83(1), 57-79. <https://doi.org/10.1177/2329490619878834>

Swartz, S., Barbosa, B., Crawford, I., & Luck, S. (2020). Professional learning through collaborative online international learning. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), . <https://doi.org/10.21125/edulearn.2020.0997>

Starkey, A. and Ezenkwu, C.P., 2024. Advancing AI with green practices and adaptable solutions for the future. [online] *The Academic*. Available at: <https://theacademic.com/ai-green-practices-adaptable-solutions/>.

Starkey, A. and Ezenkwu, C.P., 2023. Towards Autonomous Developmental Artificial Intelligence: Case Study for Explainable AI. In: *IFIP International Conference on Artificial*

Intelligence Applications and Innovations. Cham: Springer Nature Switzerland, pp.94-105.

Questions/Discussion Prompts*(Up to 300 Words)

Please list the 2 questions/discussion prompts that you will pose to attendees to spark further conversation on the presentation topic.

1. Is the app asking the right questions/gathering the best data to enable a strong COIL match?
2. Is the app well-designed, clear, and simple to use, and would you use it?

Key Words and Themes*(Up to 100 Words)

Please list the 3 specific key words/themes that your session will explore.

COIL

Matchmaking

Software Application