



Kolawole John Adebayo

Technology Centre:	Learnovate
Academic Mentor:	Dr. Brian Davis
Company Partner:	Datalive
Company Mentor:	Mr. Declan Murphy

Kolawole was previously an Erasmus Mundus Research Fellow in the context of which he completed a PhD in Legal Informatics at the University of Bologna and PhD in Computer Science from the University of Luxembourg in 2018. Prior to that, he obtained BSc and MSc degrees in Computer Science from the University of Ilorin (2007) and University of Ibadan, Nigeria (2011) respectively. He worked as a lecturer at

Dr. Brian Davis

Dr. Davis is a tenure track Assistant Professor at the School of Computing, Dublin City University and member of the SFI ADAPT centre. He was formerly a lecturer in Computer Science at Maynooth University. As a Research Fellow at the INSIGHT Center for Data Analytics, Galway (NUIG), he led the Knowledge Discovery Unit (7 postgrads, 3 PostDoc, 4 Research Assistants) and managed the SW1 work-package of the SFI Insight Grant. He was the PI of two SFI Targeted Projects - one of which was with the Enterprise Partner - Datalive. The demonstrator, delivered for this targeted project, based on semantic annotation technologies served as a pathfinder for the company's Intelligent CV parser. Furthermore, he was the Coordinator of a 3 year Horizon 2020 Innovation Action – SSIX - Social Sentiment Financial Indexes (Grant No 645425). He has a strong expertise in broad NLP and NLG, including Semantic Annotation, Opinion Mining, Ontology based Information Extraction, language generation, etc, with a proven record of research management and leadership and comes with a good interdisciplinary research portfolio with well-established relationship with various industry partners. He has mentored researchers at various career stages, his current team includes 3 Postdocs and 2 PhD students all funded through the Marie Curie and IRC fellowships.

Mr. Declan Murphy

Declan Murphy is the CEO of Datalive Ltd. Declan is a highly experienced business transformation leader with deep commercial M&A, divestment, and restructuring expertise gained in various global companies over a 20 years service period. Declan is also an excellent communicator and team builder who challenges performance, drives business results, and strives for continuous improvement. He possesses an in-depth knowledge of change strategies and performance improvement methodologies along with strong experience in leading business transformation for UK and US PLCs.

Mr. Murphy has supervised the development of all of DataLive's products from the conceptualization stage to commercialization, e.g., Allsorter.com. He led the company's technical participation in some H2020 projects including TalentMatix, which he facilitated between Datalive and Insight Centre, NUIG in 2018. Mr. Murphy has a particularly strong background in guiding teams in technology-based projects to a successful conclusion. He has engaged in deep-level mentoring and coaching with many dozens of individuals. For example, he mentored his team on a Targeted Project with SFI and NUIG in 2016 as well as mentored a Smurfit MBA class study in 2018. He also led a SME Instrument Phase 1 in 2017 and mentored an Innovation Associate in 2019. This blend of business and technology experience makes Mr. Murphy highly suitable for this project.

Learnovate

Learnovate focuses on incubating technology for industry innovation in the Irish/European enterprise contexts and provides a platform for rapid technology transfer. It is a global leader in learning technology, helping organizations transform employee and customer learning experiences through industry-led and market-oriented research. A key focus of Learnovate is Talent Development through Skills Assessment, Competency Frameworks, and Performance Management. A goal of the project is to develop a framework for skills-based candidate assessment and ranking, thus fulfilling a critical objective of Learnovate. It solves immediate business needs by leveraging the outputs of platform research to generate commercial impact for industry partners through flexible, collaborative, and short term rapid prototyping of technology solutions.

Host Institution

Dublin City University [DCU]

A core element of DCU's vision is to be a globally significant university that is renowned for its discovery and translation of knowledge to advance society. Furthermore, the University's Research and Innovation Strategy drives her commitment to world-class applied and industry-focused research leading to technology transfer. DCU ranks first in Ireland and 19th in the world for graduate employability, according to the 2020 QS Graduate Employability Rankings.

Datalive

Datalive has pioneered an AI-engineered platform allowing recruiters and HR professionals to save significant time and resources on candidate-to-market processing using Allsorter.com, a SaaS Resume-parser and formatting system for recruiters. Datalive is also developing TalentMatix, an ML text engineering solution that extracts key hard/soft skills from static employee data to allow faster shortlisting, internal progression, and skills gap analysis. The company's current challenge for its customers is to serve them up with key insight about a candidate's competencies and skills gap by delivering an agile and secure gateway to affordable and bias-free data-driven Human Capital Management (HCM) processes (attraction, selection, and retention). Kolawole's research on removing bias from the hiring process using AI opens up a key innovation pipeline which complements DataLive's current RnD objectives. Moreover, the company's top priority of eliminating bias in HCM processes is exactly what Kolawole's research will develop, thereby providing a quick technology-transfer and commercialization opportunity for the company. Datalive's pool of tools, employment data, as well as technical and subject-matter experts presents a highly valuable co-design approach to deliver the objective of this research.

Kolawole's project

“Leveraging Artificial Intelligence for Bias-free Recruiting - LAIBRE”

Hiring bias occurs when candidates feel excluded or are considered positively or negatively because of certain characterizations which have nothing to do with their ability. Most activities happen early in the hiring process, i.e., when jobs are advertised in a language that disenchant some people from applying; when candidates are unfairly screened out by human or predictive systems; and when candidates are assessed during interviews using different criteria for different groups of candidates. Hiring bias can lead to undue discrimination of quality candidates from the disadvantaged or minority groups such as women, people of colour, and those in the LGBTIQ community.

The project aims to eliminate bias across different Human Resource (HR) workflows with the help of advanced Natural Language Processing (NLP) techniques. This project is expected to revolutionize the hiring process by providing equal career-building opportunities for candidates with diverse backgrounds. The project will develop Artificial Intelligence models that can understand the contents of HR documents to extract and remove information that can lead to unconscious bias and discrimination at the attraction and selection phases of hiring. Secondment partner, Datalive has a rich repertoire of tools, data, and real-life use-cases through their commercial vendors necessary to merge research with industrial needs and to obtain useful feedback that will guide the implementation of this research in a collaborative and co-design manner.