

THE RAPID DEMOCRATIZATION AND INTEGRATION OF DATA WITH SIMULATION, OPTIMIZATION AND ARTIFICIAL INTELLIGENCE

Ben Amaba

IBM Data Sciences and Artificial Intelligence Team Elite
1 Alhambra Plaza
Coral Gables, FL 33134, USA

ABSTRACT

Many CEOs, CTOs, senior executives, and other decision-makers are seeing an advantage from the rise of big data and faster computing power. Data is now a board responsibility. The question arises: How can all this data drive innovation? Being able to harness the power of data through simulation, optimization, artificial intelligence (AI) and machine learning (ML) can help to improve financial, sales, manufacturing and supply-chain operations; enable a better, more intimate customer experience; or reduce downtime if done correctly. Waiting for the perfect environment is no longer a strategy, but an agile learning culture is the priority. With open source, hybrid clouds, high speed networks, increased computing power, and responsive platforms; simulation, optimization, AI and ML are being democratized and intertwined at a rapid pace. McKinsey estimates that AI could potentially deliver additional economic output of around \$13 trillion by 2030, boosting global GDP by about 1.2 percent a year. Advancements in computing power and open source technologies have become a competitive advantage of day-to-day business by fundamentally improving the way the industry operates. Recent progress seeks to radically change our operations and workflows. To enable and maximize the creation of value, the integration and utilization of these data science technologies coupled with a rigorous approach is required. The overhead of data preparation, model governance, bias, trust, and deployment continue to inhibit democratization. The shortage of talent to promote and apply the interdisciplinary computer, mathematical and domain knowledge places many projects in pilot purgatory. The session will explore the future of the Digital Transformation and the use of advanced analytics to create an integrated business model where data becomes more than just a single source of truth, but a strategic asset.

AUTHOR BIOGRAPHY

BEN AMABA holds a PhD. degree in Industrial & Systems Engineering, a M.B.A./M.S. degree in Engineering and Operations, and a B.S. degree in Electrical Engineering. He is responsible for industrial manufacturing, infrastructure, engineering, and supply chain solutions. Dr. Amaba is the Chief Technology Officer for the Industrial Sector, IBM Data Sciences and Artificial Intelligence Team Elite. Dr. Amaba's focus and interest is in artificial intelligence, data sciences, and cloud technology. Dr. Amaba is prominently featured in "Giving 2.0," by Laura Arrillaga-Andreessen with Stanford Business School, which details contributions to bolster and promote STEM education and careers, and is an Alexis de Tocqueville Society/United Way Member, which recognizes local philanthropic leaders. Dr. Amaba holds positions as Industry Council Advisor to Project Production Institute, Board of Director of Whoop Wireless Corporation, UCX Corporation, and RANCS Group LLC, Executive Board Member of Applied Human Factors and Ergonomics (AHFE) and Editorial Board Member to IEEE IT Professionals, Board Member to the Council on Industrial and Systems Engineering, founding member to the Institute of Advanced Systems Engineering, Founding member to the Center of Advanced Supply Chain Management, Editorial Board of The Open Cybernetics and Systemics Journal, and Executive Advisory Board Member to the University of Miami, University of Houston, and University of Central Florida., data sciences, and cloud technology.