Digitisation, AI and Algorithms in African Journalism and Media Contexts

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Digitisation, AI and Algorithms in African Journalism and Media Contexts: Practice, Policy and Critical Literacies

EDITED BY

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INVESTOR IN PEOPLE

Dedication

To my Late father Mr Jerome Dralega whose great sacrifices, wisdom and love are the reason for all my successes. To Late David Dralega, for unconditional love and for being the best big brother a little girl could ever ask for. To my children, Aleni and Amani, for sustaining me. I hope you are proud of your mamma. To all 'team Azungi' for being in my corner. And to God, for unconditional love and for being my rock and anchor.

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About the Editor

Carol Azungi Dralega is a Professor at the Department of Journalism, Media and Communication, NLA University College, Norway. She is involved in several research projects including *Violence-Inducing Behaviour Prevention in Social-Cyber Space of Local Communities Funded by the Norwegian Research Council* (2022–2026). *Preparing Media Practitioners for a Resilient Media in Eastern Africa* funded by the Norwegian Development Agency (2021–2026). Other recent projects include *Beyond the Gender Paradox: Women's Careers in Technology-Driven Research and Innovation in and Outside of Academe*, funded by NORDFORSK (2017–2022). *Building Capacity for a Changing Media Environment in Uganda* funded by the Norwegian Development Agency (2014–2021). Dralega has co-edited two books: Dralega, C. A and Napakol A. (2022) *Health Crises and Media Discourses in Sub-Saharan Africa*. Springer Nature and Dralega, C. A and Napakol A. (2022) *Covid 19 and the Media in Sub-Saharan Africa: Media Viability, Framing and Strategic Crisis Communication*. Emerald Publishers.

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Foreword

The hype surrounding the launch of a Microsoft-backed OpenAI's ChatGPT that is capable of producing high-quality essays with minimal human input and Alphabet's conversational artificial intelligence (AI) service, Bard, is indicative of the accelerated growth in the area of AI, algorithms, bots and other autonomous agents. ChatGPT and Bard, join a number of many other AI-driven apps and platforms of the past decade, that leverage deep learning and natural language processing to mimic human behaviours, imitate or replace human users to perform certain tasks commonly associated with human beings. Recent AI advances have uses that cut across all sectors and functions that humans do today. AI is transforming all sectors of society, including the journalism.

How do AI services, tools and infrastructures impact on the profession of journalism? AI applications and services transcend virtual every aspect of journalism, from newsgathering, production, distribution and business analytics (Marconi, 2020; Simon, 2022). AI is increasingly pervasive in everyday mundane tasks such as selected a film on Netflix and casually browsing through popular social media platforms like Twitter, Facebook, TikTok and Instagram. Recommendation algorithms embedded in the social media platforms provide newsfeeds that inadvertently lead to stories in the media. The same algorithms enable the media houses to broadcast their latest news and headlines on social media. The impact of social media on journalism practices and news consumption patterns have attracted the attention of researchers in Africa (Daniels, 2016; Jordaan, 2013; Verweij & van Noort, 2014).

How is AI impacting on the newsgathering practices, globally and in the African context? Global trends in the field show that the AI is driving precursor processes to news reporting by leveraging information seeking and processing processes in the newsgathering stage. Information discovery via social media, digital databases and search engines like Google Search are increasingly mediated through AI-enabled data processing software, that sift through big data, filters, sorts and recommends material input that enable journalists to write their stories. The influence of AI does not end in the newsgathering stage but permeates also the news production phase through editing and formatting of content, data visualisation, tagging, publication and archiving. There are indeed various other areas where AI is being leveraged. Commenting on the use of AI in financial reporting, an executive of an American media corporation, CNBC aptly captures what an advanced application of AI can do in the context of financial newsgathering and analysis, 'We will take 5,000 balance sheets, read it within seconds, be able to extract all the financial information,

calculate a risk score, and be able to make a decision on the risk of a portfolio' (Rosenbaum, 2023). This a typical scenario in highly digitalised environments, where much of the information exists in digital format. That remains a distant horizon for journalists in many African countries that still grapple with the realities of digital divide.

Realities on the ground show that the digitalisation tools are not commonplace. Media technology continues to pose a major problem for media houses. Unreliable electricity supplies, low and costly internet connectivity and capacity, outdated equipment mean that some journalists have no adequate access to modern tools that efficiently leverages the AI-enhanced capacities and affordances. The adoption of digital technology remains complex.

Data-driven journalism, though still at its nascent stages of development in most Africa countries is gained traction in the newsrooms. Research on Africa newsrooms has shown an increased practice of data-driven journalism (Mabweazara, 2015; Moyo et al., 2019). Some journalists practice data-driven journalism even though they do not consider themselves as data journalists (Gondwe & White, 2022). Media houses and journalists continually use social media platforms like Twitter as a journalistic tool for newsgathering, breaking news events, live blogging and crowd-sourcing. AI influences the processes and culture of news selection and dissemination.

This edited volume captures explore the current developments on Artificial intelligence (AI), algorithms and data or metrics-driven practices in the African newsrooms. The contributors underscore the various uses, opportunities and limitations of AI in the African context. They provide insights on the current trends on data-driven journalism. AI is being leverage for problem-solving initiatives such as combating the scourge of fake news and other forms of disinformation.

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Preface

In 2019, I attended a conference in Bergen, Norway on AI-driven journalism. One presentation captured my interest. It was made by an editor at one of the large regional newspapers who shared his newsroom's approach to AI-driven journalism giving fascinating insights into the post-humanist era that we find ourselves in today. One particular example of interest involved an international investigative story that was covered using AI, algorithms and data. It was a splendid integrated human-centred approach using technology to investigate, monitor and visually present the story in real time to consumers. This was in a Nordic newsroom context, so what was the status in African newsrooms contexts, I wondered! Currently, the research is sparse but then, it was almost non-existent and that is how *Digitisation, AI and Algorithms in African Journalism and Media Contexts: Practice, Policy and Critical Literacies* was born – out of academic curiosity and the need to fill knowledge gaps from eastern African contexts.

The literature is budding. AI, algorithms and data-driven practices are already pervading all sectors of societies across the globe (Stalph, 2020). It is safe to say that AI and algorithms are the present 'power brokers' governing, what information is produced, consumed and what networks they engage with (Emmert-Streib, 2021). The media industry is one of the sectors that is increasingly embracing AI, algorithms and data to harness the ever-changing potential of information and communication technologies. The Reuters Institute report (2022) projected that algorithms, AI and data-uptake within newsrooms would increase in the near future. The explosion of ChatGPT in November 2022 and similar tools affirms this prediction, a factor acerbated by the dramatic digital influx of consumers, advertisers and media outlets that we saw with the onset of the Covid-19 pandemic (Dralega & Napakol, 2022a, 2022b).

Already before the pandemic, AI, robots, algorithms and data/metrics were pervasive in many newsrooms, increasingly dictating and rapidly changing journalistic and newsroom practices, cultures and norms, i.e. from editorial agenda setting, to news production processes, to audience and advertiser targeting (Moyo et al., 2019). Social media platforms have particularly been at the core of the AI and algorithmic turn offering real-time consumer analytics and newsfeeds for insatiable and borderless digital citizens. The algorithms within these platforms make them powerful news aggregators, redirecting consumer habits and advertisers, making them vital in the journalism practice and media viability across the globe (Ali & Hassoun, 2019).

Nevertheless, the scholarship on AI, algorithms and data-driven journalism from the Global South especially in sub-Saharan Africa context remains sparse (Mutsvairo, Bebawi, & Borges-Rey, 2020; Gondwe & White, 2022). Most of the empirical studies are Western-oriented. Moreover, there are knowledge gaps relating to the post-Covid state of AI, algorithms and data-driven journalism as well as the implications for political, social, cultural, markets and media viability. As a social construct, technology appropriation often comes with repercussions – so what are the prospects and repercussions on the development and democratic agenda especially in reference to Universal declarations and SDGs/2030 Agenda for sustainable development? Debates on the role of international players in the AI/data journalism practices in the Global South, especially in the modernisation theoretical and post-colonial perspectives. Can the AI/data journalism optimism found in the western world be transferred to the Global South wholesomely? The unresolved consequences around issues on the digital divide and marginalisation need to be brought to the research agenda. In this volume, insights are also shared on policy developments, media education and critical literacy fields (Kothari & Hickerson, 2020), which are largely research deserts.

This edited book provides new knowledge on some of the key issues surrounding automation, algorithms, data-driven journalism and digitisation in post-truth, post-human and post-Covid sub-Saharan Africa contexts. It includes highly rigorous theoretical and empirical chapters unveiling related media innovations and developments. It also includes, interdisciplinary perspectives, comparative, ethnographic studies along with multi-genre (i.e. Social media, Television, Newspapers, Radio, community/alternative media, etc.) perspectives and methodologies. This book is a welcome resource for media researchers, students, academics, media practitioners and policymakers who seek to understand and make sense of these 4IR technologies and how they are set to revolutionise journalism practice in sub-Saharan Africa. Potential investors interested in AI solutions for Journalism (education/training, app development) in African contexts would also find this book of interest.

This volume would not have been possible without the Emerald Team who provided guidance and support throughout the processes. Special gratitude to all the authors without whose rigorous, critical contributions and patience, there would not be a book. I am also eternally grateful to the reviewers who took their time to offer valuable and constructive feedback that enriched the quality of the chapters. I am also deeply grateful to NLA University College for supporting this project. Asante!

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