

Section 1: Contribution Details

Contribution	Detail
Authors Name(s)	Chipa Maimela
Title of Submission:	Upskilling for the Next Generation of Research Support: AI, Robotics, and Digital Transformation at the forefront, the University of Pretoria Library case.
Sub-Theme(s) of Submission:	Training and skills development for librarians in the age of AI;
Keywords of Submission:	Training, Artificial Intelligence, Robotics, Upskilling, digital transformation

Section 2: Abstract Text

The rapid advancement of digital technologies is reshaping research practices, placing digital transformation at the forefront of the research support ecosystem. As the next generation of research professionals navigates this evolving landscape, upskilling has become imperative to remain relevant and effective. This paper explores the critical role of digital transformation in redefining research support and highlights key strategies for upskilling professionals to meet emerging demands.

Key focus areas include mastering data analytics, artificial intelligence (AI), Robotics , and digital collaboration tools to optimise research workflows and outcomes. Blockchain integration for secure data management, cloud computing for scalability, and advanced visualisation tools for impactful communication are also examined. Moreover, the paper underscores the importance of developing digital literacy, fostering interdisciplinary collaboration, and cultivating ethical practices to address challenges like data privacy and algorithmic bias.

Training initiatives, such as micro-credentialing, modular learning, and immersive workshops, are proposed as effective solutions to bridge skill gaps. Partnerships between academic institutions, technology providers, and industry stakeholders are emphasised as pivotal to building a digitally adept research workforce. By embracing digital transformation, research support professionals can enhance efficiency, foster innovation, and contribute to the development of robust, data-driven research ecosystems. This paper serves as a roadmap for institutions aiming to future-proof their research support services by prioritising strategic upskilling in a rapidly digitising world.