



Inspiring Innovation and Leadership



INTERNATIONAL CONFERENCE ON SUSTAINABLE KNOWLEDGE SYSTEMS (ICSKS 2025)

Organized by Karatina University Library, Kenya and Optimistic
Concept Services, Netherlands.

Conference Programme

Karatina University, Kenya.

Monday 14th – Wednesday 16th April, 2025



Conference Sponsors



Chief Host



Professor Linus Muthuri Gitonga (PhD, MSc, BEd Sc. Hons), Vice-Chancellor of Karatina University, is the chief host for the conference. A distinguished academic and leader, Prof. Gitonga holds a PhD, MSc, and Bachelor of Education in Science (Hons). His leadership at Karatina University is marked by a strong commitment to academic excellence, innovation, and advancing collaborative research and development.

<https://karu.ac.ke/vice-chancellor/>

Host



Dr. Everlyn Anduvare is the University Librarian and an Adjunct Lecturer of Information Literacy Skills at Karatina University, Kenya. She holds a PhD in Library Studies from the University of KwaZulu-Natal. Dr. Anduvare is also involved in research, publishing, peer reviewing, postgraduate supervision, mentorship, and community initiatives.

<https://orcid.org/0000-0002-5613-0213>

Keynote Address Speaker



Professor Marlene Holmner

Topic: AI for a Sustainable Future: Advancing Information, Communication, and Libraries for Innovation, Access, and Ethics Across Disciplines.

Professor Marlene Holmner, an Associate Professor and Head of the Department of Information Science at the University of Pretoria, South Africa, brings extensive expertise in Information Science to her keynote address. Holding a DPhil in Information Science, her work spans Information Ethics, Indigenous Knowledge, ICT for Development, the Information and Knowledge Society, Institutional Repositories, Digitization, Mobile Technologies, and Curriculum Development.

Widely published in journals such as *South African Journal of Libraries and Information Science*, *Information Development*, and *Library Hi-Tech*, Dr. Holmner is also a regular speaker at major conferences, including ProLISSA, IFLA, ALA, iConference, and SIG GlobDev. She has held roles as program chair and co-chair at various workshops, showcasing her leadership in the field.

In her teaching at the University of Pretoria, Dr. Holmner guides both undergraduate and postgraduate students and supervises numerous Master's and PhD candidates. A Microsoft Certified Professional, she actively contributes to professional organizations like the Library and Information Association of South Africa (LIASA), the African Centre of Excellence for Information Ethics (ACEIE), and the Association for Information Science and Technology (ASSIST).

<https://orcid.org/0000-0003-1021-7601>

Keynote Speakers

1. **Professor Peter Gatiti**

- **Title:** Associate Vice Provost and University Librarian, Aga Khan University, Nairobi, Kenya, and the Chair, Kenya Library Association (KLA).
- **Topic:** *Ethical AI and Responsible Innovation*

2. **Marco van Hout**

- **Title:** Creative Director and Co-founder, Digital Society School, Amsterdam University of Applied Sciences, Netherlands
- **Topic:** *AI for Digital Transformation and Sustainable Innovation*

3. **Honorable Sagir Musa Ahmed**

- **Title:** Commissioner of Information, Youth, Sport, and Culture, Jigawa State, Nigeria
- **Topic:** *AI-Driven Knowledge Discovery in Libraries and Information Centers*

4. **Dr. Carolyne Nyaboke Musembe**

- **Title:** Lecturer and Researcher, Technical University of Kenya, Nairobi, Kenya
- **Topic:** *AI Applications in Archives and Records Management*

5. **John Mwazemba**

- **Title:** Regional Director for East Africa, Oxford University Press
- **Topic:** *Human-AI Collaboration in Publishing, Creative, and Cultural Industries*

6. **Professor Kellen Kiambati**

- **Title:** Director, Resource Mobilization and International Programmes
- **Topic:** *AI-Enhanced Research and Interdisciplinary Collaboration*

7. **Dr. Sola Owolabi**

- **Title:** Lecturer and Librarian, Bells University of Technology; Researcher, Digital Society School, Amsterdam
- **Topic:** *AI in Bibliotherapy and Cinematherapy*

8. **Brenda Betty Kiema**

- **Title:** Disability Inclusion Officer, Tangaza University, Nairobi, Kenya
- **Topic:** *AI for Accessibility and Personalized Engagement*

9. **Damilare Oyedele**

- **Title:** Co-founder and Chief Executive, Library Aid Africa
- **Topic:** *AI for Sustainable Development Goals (SDGs) and Societal Impact*

10. **Joel Onditi**

Title: CEO and President of Pathways Technologies LTD

Topic: *AI in Education and Learning System | AI in Digital Transformation*

Conference Planning Committee



Chair ICSKS 2025

Dr. A.J. Alonge, a distinguished academic and practitioner, is a Visiting Scholar at Karatina University in Kenya, actively engaged in teaching and research initiatives that explore the intersection of technology and sustainability in library and information science. He also serves as a lecturer at the University of Ibadan, Nigeria, a Digital Transformation Researcher at the Amsterdam University of Applied Sciences, and the Consultant Librarian and Project Director for the Afrelib Green Library Initiative in the UK.

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Other Members

- Dr. Everlyn Anduvare, University Librarian, Karatina University - Host & Co-Chair
- Dr. Sola Owolabi, Bells University/OCS Academy Nigeria - Member
- Bolu Josh, OCS Academy Netherlands - Member
- Dr. Carolyn Nyaboke, Lecturer, Technical University of Kenya - Member
- Mrs. Oyetoun Alonge OCS Academy Netherlands - Member
- Ms. Jackline Wanjugu, Senior Library Assistant - Karatina University - Secretariat
- Ms. Mary Mwaniki, Senior Library Assistant - Karatina University - Secretariat

Conference Theme

AI for a Sustainable Future Advancing Information, Communication, and Libraries for Innovation, Access, and Ethics Across Disciplines

Conference Objectives

- **Examine AI Applications Across Disciplines:** Discover how AI transforms libraries, communication, healthcare, environmental studies, and legal systems, enhancing knowledge sharing, research, and decision-making.
- **Advance AI Literacy through Practical Workshops:** Engage in hands-on workshops with AI tools relevant to fields such as sustainable development, health information, and media.
- **Promote Ethical and Responsible AI Use:** Address ethical considerations in AI, including privacy, bias, and accountability, to encourage responsible practices aligned with societal and SDG goals.
- **Present Global Case Studies and Best Practices:** Showcase innovative AI applications from diverse regions, promoting collaboration on AI-driven projects with sustainable development impact.
- **Develop Strategic AI Frameworks:** Guide participants in crafting AI strategies tailored to their fields, promote sustainable AI adoption in healthcare, environmental studies, law, communication, and beyond.

Sub Themes

1. AI for Sustainable Development Goals (SDGs) and Societal Impact
2. AI-Driven Knowledge Discovery in Libraries and Information Centers
3. AI in Education and Learning Systems
4. AI in Communication, Journalism, and Media
5. Ethical AI and Responsible Innovation
6. AI for Environmental Monitoring and Climate Action
7. Human-AI Collaboration in Publishing, Creative, and Cultural Industries
8. AI in Legal Systems, Policy, and Governance
9. AI for Digital Transformation and Sustainable Innovation
10. AI-Enhanced Research and Interdisciplinary Collaboration
11. AI for Accessibility and Personalized Engagement
12. AI and Multimedia Innovations
13. AI in Public Health
14. AI in Bibliotherapy and Cinematherapy
15. AI for Green Libraries and Sustainable Practices
16. AI Applications in Archives and Records Management

DAY 1: MONDAY 14th APRIL, 2025

Time	Activity	Facilitator	
07.30 am - 08.30 am	Arrival and registration	Secretariat	
	Master of Ceremony	Dr. Victor Ntabo	
09.00 am - 09.05 am	Prayer	Dr. Titus Githaiga	
09.05 am - 09.15 am	National, EAC and Karatina University Anthems & Entertainment	University Choir	
09.15 am - 09.20 am	Introduction of delegates and invited guests	Dr. John Alonge & Dr. Everlyn Anduvare	
09.20 am - 09.25 am	Remarks <i>Prof. Richard Kiai</i> <i>Ag. DVC-PFA, Karatina University</i>	Dr. Everlyn Anduvare	
09.25 am - 09.30 am	Opening remarks <i>Prof. Franklin Wabwoba,</i> <i>DVC-ARSA, Karatina University</i>	Prof. Richard Kiai	
09.30 am - 09.45 am	Official opening address <i>Prof. Linus Gitonga,</i> <i>Vice Chancellor, Karatina University</i>	Prof. Franklin Wabwoba, DVC-ARSA, KarU	
09.45 am -10.30 am	Keynote address: AI for a Sustainable Future: Advancing Information, Communication, and Libraries for Innovation, Access, and Ethics Across Disciplines. <i>Prof. Marlene Holmner, University of Pretoria, SA</i>	Prof. Linus Gitonga, Vice Chancellor, KarU	
10.30 am -10.45 am	Q & A Session	Dr. John Alonge	
10.45 am -11.00 am	Photo session	Secretariat	
11.00 am -11.30 am	Health Break		
11.30 am -11.35 am	Pathway Technologies LTD – Becky Abrahams	MC	
11.35 am -11.40 am	Journal of Visualised Experiments (JoVE) – Keisha Njenga		
11.40 am -12.00 pm	Panel Discussion: AI in Academia & Corporate Worlds Panelists: Prof. Kellen Kiambati, Becky Abrahams, & Loren Anduvare	Moderator: Dr. John Alonge	
12.00 pm -12.15 pm	Q & A Session		
12.15 pm - 12.35 pm	Ethical AI and Responsible Innovation <i>Prof. Peter Gatiti</i>	Dr. Carolyne Nyabokeye	
12.35 pm -12.55 pm	AI for Accessibility and Personalized Engagement: The role of AI in enhancing accessibility of digital libraries for users with disabilities. <i>Brenda Betty Kiema</i>		
12.55 pm – 01.00 pm	Q & A Session		
01.00 pm - 02.00 pm	Lunch Break	Secretariat	
Parallel Sessions			
	Session A		Session B
Time	Activity	Facilitator	Activity
	AI for Green Libraries and Sustainable Knowledge Practices	Session Chair: Dr. Oyemike Victor Benson	Students Workshop: Participants: KarU Knowledge Ambassadors Club members. Session Chair: <i>Loren Anduvare</i>
02.00 pm - 02.15 pm	Harnessing Artificial Intelligence for sustainable collection development in academic libraries in Kenya. <i>Dr. Hellen M. Ndegwa & Sally Chepchirchir</i>		KADOSA.AI GROUP -From Sci-Fi to Society: Real AI Use Cases Transforming Africa & the World <i>Moses Vundi & Charles Osoro</i>

02.15 pm – 02.30 pm	Integration of Artificial Intelligence (AI) in academic libraries for efficient information delivery services: A literature review. <i>Peter Shibonje Burudi & Vincent Bob Kiilu</i>		Pearson Publishers <i>Allan Ouchi</i>
02.30 pm - 02.45 pm	Exploring the potential of AI-Driven sustainable practices in Nigerian libraries: bridging the gap to green innovations. <i>Dr. Evelyn Nkechi Emeahara, Dr. Olalekan A. Awujoola & Mr. Oladimeji Simeon Ajayi</i>		AI Use Cases <i>Mitchelle Akinyi - Trainer, Pathways Technologies.</i>
02.45 pm – 03.00 pm	Smarter and greener: AI-driven environmental sustainability, librarian perspectives. <i>Dr. Diana Atuase</i>		-Introduction -AI in Education .summary
03.00 pm - 03.15 pm	Sustainable practices for green libraries powered by AI: A case study of IBB University, Lapai, Niger State, Nigeria <i>Abubakar, Ndasaliu Usman & Jamilu Yabaya Maipan-uku</i>		-AI use cases in education and learning paths
03.15 pm – 03.30 pm	Q & A Session		-Hands on demo with interactive Q & A
	Session C		
	AI in Education and Learning Systems	Session Chair: Prof. Kellen Kiambati	
03.30 pm - 03.45 pm	Rethinking Artificial Intelligence (AI) applications in librarianship: implications for library schools in developing countries. <i>Oyemike Victor Benson, Angela Chinwe Igbojesi, Catherine Chinyere Eke & Patience Chisa Njoku..</i>		
03.45 pm - 04.00 pm	Bridging the gap between knowledge-based and practical skill-oriented education. <i>Dr. Charles Wabogo & Dr. Stephen Njoroge</i>		
04.00 pm - 04.15 pm	Fixing ethical concerns in use of Artificial Intelligence in higher education: The case of Karatina University, Kenya <i>Prof. Johannes Njoka, Dr. Josephat Kagama, & Gitbui, P.</i>		
04.15 pm - 04.30 pm	Assessing the influence of Artificial Intelligence on academic integrity in Computer Science education <i>Joshua Abah ABAH, Ubagu David Terungwa, Taurayi Willard Chinaka</i>		
04.30 pm - 04.45 pm	Bridging the gap: How AI-driven virtual classrooms can increase access to quality education in remote areas of Nigeria. <i>Hassan Shehu Ahmed</i>		Group photo & Departure

04.45 pm - 05.00 pm	The influence of AI on work attitudes in knowledge-centric environment <i>Dr. Ekere Justina Ngozi & Haco-Obasi, Faustina N</i>		
05.00 pm - 05.15 pm	Q & A Session		
05.15 pm - 06.30 pm	Welcome & Networking Forum	Dr. John Alonge & Dr. Everlyn Anduvare	

DAY 2: TUESDAY 15th APRIL, 2025

Time	Activity	Facilitator
08.00 am - 08.30 am	Arrival and registration	Secretariat
08.30 am - 08.40 am	Corporate Campus EA Ltd <i>Margaret Nyambura</i>	MC
08.40 am - 08.50 am	Pearson Publishers <i>Allan Ouchi</i>	
	Session D	
	AI-Enhanced Research and Interdisciplinary Collaboration	Session Chair: Dr. Everlyn Anduvare
08.50 am – 09.15 am	Artificial intelligence in higher education: interaction as opposed to single-mindedness turns brains into minds. <i>Prof. Kellen Kiambati</i>	
09.15 am – 09.30 am	Emerging trends in AI-driven biospectroscopy for early disease detection <i>Dr. Irungu Githaiga</i>	
09.30 am – 09.45 am	Approaches to using Artificial Intelligence and digital humanities in remodeling library spaces. <i>Afline Annor, Asbah Owano & Grace Wambui Kaman</i>	
09.45 am – 10.00 am	Q & A Session	
10.00 am – 10.30 am	Health Break	Secretariat
	Session E	
10.30 am – 10.40 am	Africa Leadership University <i>Ann Wangui</i>	MC
	AI for Digital Transformation and Sustainable Innovation	Session Chair: Dr. Charles Wahogo
10.40 am - 10.55 am	AI for digital transformation and sustainable innovation <i>Marco van Hout</i>	
10.55 am - 11.10 am	Artificial intelligence in the transfer of tacit indigenous knowledge of a bull as intangible cultural heritage among the Isukha community, Kenya. <i>Elphas Muruli, Lilian Oyieke & Asbah Owano</i>	
11.10 am – 11.25 am	Multi-crop disease classification using MobileNetV2: an AI-Powered Detection App <i>Thomas Kinyanjui Njoroge, Dr. Kevin Mugoye Sindu & Dr. Rachael N. Kibuku</i>	
11.25 am – 11.40 am	Deep learning and IoT sensors for real-time crop disease detection and field condition monitoring <i>Thomas Kinyanjui Njoroge, Dr. Kevin Mugoye Sindu & Dr. Rachael N. Kibuku</i>	
11.40 am – 11.55 pm	Multi-Crop leaf disease classification using MobileNetV2: An AI-Powered Detection Model <i>Thomas Kinyanjui Njoroge, Peter N. Njuguna, Vancy J. Kebut, Vincent K. Tannui, Zablon O. Birundu</i>	

11.55 pm – 12.10 pm	Q & A Session	
	Session F	
12.10 pm – 12.30 pm	AI in Bibliotherapy and Cinematherapy <i>Dr. Sola Owolabi</i>	Session Chair: Dr. John Alonge
12.30 pm – 12.45 pm	Machine learning in biospectroscopy: challenges and solutions <i>Dr. Irungu Githaiga</i>	
12.45 pm – 01.00 pm	Q & A Session	
01.00 pm – 02.00 pm	Lunch Break	Secretariat
	Session G	
	AI Applications in Archives and Records Management	Session Chair: Miriam Ndung'u
02.00 pm - 02.20 pm	AI applications in archives and records management <i>Dr. Carolyn Nyaboke Musembe</i>	
02.20 pm - 02.35 pm	AI application in archives and records management: A case study of the public service records department, Kampala, Uganda <i>Nanyanzi Mary</i>	
02.35 pm - 02.50 pm	Exploring the integration of artificial intelligence for enhanced records management and archival practices in academic libraries in rivers state, Nigeria. <i>Egbo, Samuel Oghenerukwe & Ukaegbu, Bernadette Chinasa Nkeiruka</i>	
02.50 pm - 03.05 pm	Leveraging artificial intelligence for enhanced records and archives management in the digital age <i>Kennedy M. Musembi, Dr. Carolyne N. Musembe & Naftal Chweya</i>	
03.05 pm - 03.20 pm	Application of AI technology in the records management systems of the National Archives of Nigeria, Ibadan <i>Ese Eunice Anenene</i>	
03.20 pm - 03.35 pm	Integration of AI in Records Management at the National Social Security Fund-Uganda <i>Angellah Chandia</i>	
03.35 pm – 03.50 pm	Q & A Session	
03.50 pm – 04.20 pm	Health Break	Secretariat
	AI for Sustainable Development Goals (SDGs) and Societal Impact	Session Chair: Dr. Carolyne Musembe
04.20 pm – 04.35 pm	AI for Sustainable Development Goals (SDGs) and societal impact <i>Damilare Oyedele</i>	
04.35 pm – 04.50 pm	Underutilized potential of artificial intelligence in addressing food insecurity in Kenya <i>Dr. Dennis Maina & Dr. Flora Runji</i>	
04.50 – 05.05 pm	Harnessing information policies and Artificial Intelligence for Africa's sustainable development: A multi-sectoral analysis with case studies from Kenya <i>Isaiab Wanjala Mang'eni and Dr. John Alonge Ayodele</i>	
05.05 pm – 05.20 pm	Malthusian population problem in relation to AI and it's implication on economic growth in the central senatorial district of cross River State in Nigeria in west Africa. <i>Louis Friday Agbor, Akim Lucia James and Ushie Thomas L</i>	
05.20 pm - 05.35 pm	Tree-based predictive models towards solving the university academic progress crisis <i>Judah Kabiru Kibuthi</i>	
05.35 pm - 05.50 pm	Q & A Session	

DAY 3: WEDNESDAY 16th APRIL, 2025

Time	Activity	Facilitator
08.00 am - 08.30 am	Arrival and registration	Secretariat
	Session H	
	AI-Driven Knowledge Discovery in Libraries and Information Centers	Session Chair: Naomy Mwaurah
08.30am - 08.50 am	AI-Driven Knowledge Discovery in Libraries and Information Centers <i>Honorable Sagir Musa Ahmed</i>	
08.50 am - 09.05 am	Impacts of artificial intelligence (AI) on information services delivery in libraries: a case of the Catholic University of Eastern Africa library. <i>Lydia Chegem & Dr. Everlyn Anduvare</i>	
09.05 am - 09.20 am	Transforming academic library reference services: the role of Artificial Intelligence and emerging technologies. <i>Vincent Bob Kiilu, Thomas Njorge, & Dr Peris Wambui Kiilu</i>	
09.20 am - 09.35 am	Empowering lifelong learning: AI in educational platforms for sustainable development-a survey of library and information science educators <i>Prof. Chinwe Nwogo Ezeani, Prof. Francisco Esoswo Ogbomo, Dr. Nneka Uchenna Nwankwo & Annabel Onyeisi Ijeh</i>	
09.35 am – 09.50 am	AI-enhanced knowledge discovery in libraries and information centers: ethical and innovative practices for sustainable knowledge systems. <i>Godfrey J. Nyongesa, Dr. Mbenge T. Ndiku & Dr. Ashab Owano Kaburu</i>	
09.50 am - 10.00 am	Q & A Session	
10.00 am - 10.30 am	Health Break	Secretariat
10.30 am - 10.45 am	AI versus the Library or AI and the Library? <i>Naomy Mwaurah & Salome Kivura</i>	Session Chair: Sally Chepchirchir
10.45 am – 11.00 am	Assessing AI literacy skills of academic librarians in Kenya <i>Miriam W. Ndungu and Dr. Stanislaus Agava</i>	
11.00 am – 11.15 am	Revitalizing access to information: the role of AI-driven technologies in libraries and information centers. Ruth Kiilu, Lynette Njogu, Alphonse Kilonzo & Francis Macharia.	
11.15 am - 11.30 am	African libraries and open knowledge practices: a call for understanding of the problems, prospects and best practices for knowledge expansion <i>Dr. Justina Ngozi Ekere, Dr. Juliana O. Akidi, Dr. Oyemike Victor Benson, & Dr. Friday Iheke Udensi.</i>	
11.30 am – 11.45 am	The Role of Artificial Intelligence (AI) in Sustainability of academic libraries in Kenya <i>George Mwangi Wamabiga</i>	
11.45 am – 12.00 pm	Q & A Session	
	Session I	
12.00 pm – 12.20 pm	Human AI collaboration in publishing, creative and cultural industries. <i>John Mwazemba</i>	Session Chair: Ese Eunice Anenene
12.20 pm – 12.35 pm	Q & A Session	
12.35 pm – 01.00 pm	Plenary: Conference evaluation and feedback	Dr. John Ayodele & Dr. Everlyn Anduvare
01.00 pm – 02.00 pm	Lunch Break	Secretariat

02.00 pm – 03.00 pm	Closing remarks and issuance of certificates	Dr. John Ayodele & Dr. Everlyn Anduvare
03.00 pm – 04.00 pm	Vote of thanks	Dr. John Ayodele
04.00 pm – 05.00 pm	Socialisation, tea and departure	Secretariat
Asante!		

Book of Abstracts for ICSKS 2025

Submitted abstracts

Alonge, A. J., Anduvare, E & Owolabi, S. (2025). Book of Abstracts. *Interdisciplinary Journal of Contemporary Research in Information and Communication*, 2(1). <https://ijcric.org/index.php/ijcric/article/view/15>

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