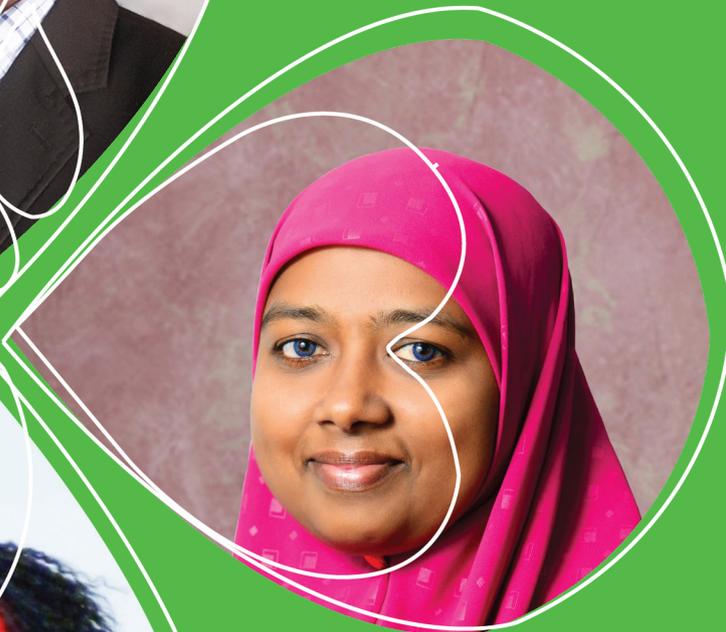


Unsung Heroes: Stories from the Library



How access to scientific
literature is building
the global research
community

Research4Life - Unsung Heroes 2014

For more information on this booklet please visit:
www.research4life.org

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About Research4Life

Research4Life is a public–private partnership between the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the United Nations Environment Programme (UNEP), the World Intellectual Property Organization (WIPO), the International Association of Scientific, Technical and Medical Publishers (STM), approximately 200 publishers, Cornell University, Yale University, and several technical partners including Microsoft. The partnership’s goal is to contribute to the attainment of the UN’s Millennium Development Goals, reducing the knowledge gap between industrialised countries and developing countries by providing affordable access to critical scientific research.

Since the first programme launched in 2001, Research4Life has now expanded to four programmes – Research in Health (HINARI), Research in Agriculture (AGORA), Research in the Environment (OARE), and Research for Development and Innovation (ARDI) – providing researchers at more than 7700 institutions in over 100 developing countries and territories with free or low-cost access to more than 40,000 online information resources in the fields of health, agriculture, environment and technology.

For more information visit www.research4life.org.

Contents



- 5. Foreword
- 6. Introduction
- 8. From Entomologist to Agricultural Librarian
Onan Mulumba - Uganda
Becoming a master trainer to fuel evidence-based agricultural research and innovation in Uganda.
- 11. A Librarian by Passion and Profession
Cynthia Kimani - Kenya
Embedding Research4Life across 10 campuses establishes the library as the digital backbone for research.



- 14. Boosting a Young Democracy
Shaba Shabana - Maldives
Equipping the Maldives' new research centre to educate the young democracy's future scientists and policymakers.
- 17. Pioneering at Makerere
Alison Kinengyere - Uganda
Inspiring a health librarian to write her PhD on solving low Research4Life uptake and developing a powerful training infrastructure.
- 20. Research4life Facts and Figures



- 22. Mining Research4Life for the Good of the Patient
Nasra Gathoni - Kenya
Highlighting the indispensable role of medical librarians collaborating with doctors and nurses to improve and save lives.

- 25. Embracing Research4Life
Fredrick Otike - Kenya
Mastering e-resources, Fredrick Otike promotes Research4Life as an expert information specialist.

- 28. Designing the One-Stop Medical Library
Ovidio Padilla - Honduras
Enabling a tech-savvy Honduran medical librarian to create a one-stop virtual medical library.



- 31. Leading the Way with HINARI
Grace Ada Ajuwon - Nigeria
Changing behaviours in learning, research, teaching and patient care transforms output and treatment.

- 34. On the Front Lines of Research
Caroline Kobusingye - Uganda
Supporting another Ugandan librarian to boost Research4Life usage at Makerere University, currently ranked 9th across Africa.

- 37. Postscripts from a Digital World
Research4life experiences and impact around the world.

Foreword

By 2000, it was becoming increasingly clear to senior managers at the World Health Organization (WHO) that doctors, academics and students in most of the world's poorest countries were suffering from lack of access to up-to-date information in biomedicine, hampering both the delivery of health care and essential research into medicine and disease. Most university libraries and research organizations in low-income countries did not have the budgets to pay for important peer-reviewed journals, which are fundamental to the work undertaken in these very institutions.

In March 2001, representatives from WHO met with senior staff from six of the largest international scientific publishers to explore ways of closing this critical information gap. That meeting would see the birth of a public-private partnership designed to provide those working in institutions in the world's poorest countries with this essential access.

The outline of what would become HINARI was quickly established and, by the end of 2002, 410 institutions in 55 (of 69 eligible) countries had registered for access to around 2000 journals. Few of us who were lucky enough to share in the early development of HINARI could have foreseen its growth.

In 2003, AGORA, sponsored by the Food and Agriculture Organization (FAO), joined the partnership, providing access to journals in the field of agriculture. In 2006, the United Nations Environment Programme joined with the OARE programme in the field of environmental science. In July 2011, ARDI, focusing on access to research for

development and innovation, and sponsored by the World Intellectual Property Organization (WIPO), became the fourth programme in the partnership, which by now had been given the collective title of Research4Life. Currently, 7700 institutions are registered in more than 100 countries and territories to access more than 40,000 journals, books, databases and other publications from nearly 200 publishers, and the partners are already planning for the future of Research4Life beyond 2015.

The growth of Research4Life could not have happened without the commitment and determination of scientific publishers from around the world, dedicated technology partners such as Microsoft, academic institutions including Cornell and Yale Universities, and others who are truly making a difference by providing access to vital information to those who need it.

But success is not measured by how big Research4Life has become, nor by how the programmes reflect on the contributing partners. The only worthwhile measures of success are improvements in health, agriculture, environment and innovation in Research4Life countries and territories, and in the local and international publication of valuable research performed there. The wonderful and moving stories contained in this booklet demonstrate that the Research4Life programmes are working.

Stephen Rudgard, Chief of Knowledge and Capacity for Development at the UN Food and Agriculture Organization (FAO) and AGORA Programme Manager.

Richard Gedye, Director of Outreach Programmes for the International Association of Scientific, Technical & Medical Publishers (STM).

Introduction

Celebrating the “Unsung Heroes”: Librarians and Research4Life

From information literacy training to building infrastructure and outreach, librarians are critical to building a healthy research culture in the developing world and they are often the “unsung heroes” in the research ecosystem. This is one of the reasons that we launched a competition for case studies in 2013. Our goal was to highlight the dedication and capacity building of those who assist researchers everyday in accessing and using vital information within their institutions. Dr. Sami Kambire, a researcher who shared his story in our 2011 case study book, “Making a Difference” noted, “Researchers should thank librarians, who help find their bibliographies. The work they perform is science without acknowledgement.” Taking our cue from Dr. Kambire, we thought it was time to put the librarians in the spotlight.

In total 45 case studies were reviewed by our judging panel of twelve international librarians and experts in research capacity building. Making choices was difficult, but excellent stories quickly emerged. Onan Mulumba, Agricultural Librarian for the College of Agricultural and Environmental Sciences at Makerere University in Uganda, was the winner, and Cynthia Kimani, Librarian at the Kenya Medical Research Institute Library was awarded an honourable mention. Both Onan and Cynthia were invited to attend the Research4Life Partners’ General Meeting in Rome in September, sharing their insights and critical, on-the-ground feedback with us. As part of their prizes, Onan joined the Research4Life Executive Council and Cynthia was



Onan Mulumba, Cynthia Kimani and Ylann Schemm at the 2013 Research4Life partner’s meeting in Rome.

invited to serve on Research4Life’s newly founded Library Advisory Council, providing a forum for direct engagement between the Research4Life user community and the Partnership.

In response to the prize, Onan remarked, “Being able to access Research4Life has made me a more relevant person in the academic community, because every time a researcher seeks information and I am able to provide, then I am “un-touchable” in the eyes of the users. Research4Life has enabled Makerere to have an increased number of publications, which has increased its visibility on the web and the rankings in Africa and worldwide.”

His story and Cynthia’s have become part of a new book of case studies conveying the experiences of

librarians working on the front lines of research and Research4Life.

These testimonials aim to give librarians—Research4Life’s ambassadors — a prominent voice and support the early identification of trends, challenges and opportunities from research communities in developing countries.

As you read these stories, you will find out how HINARI, AGORA, OARE and ARDI have made a difference:

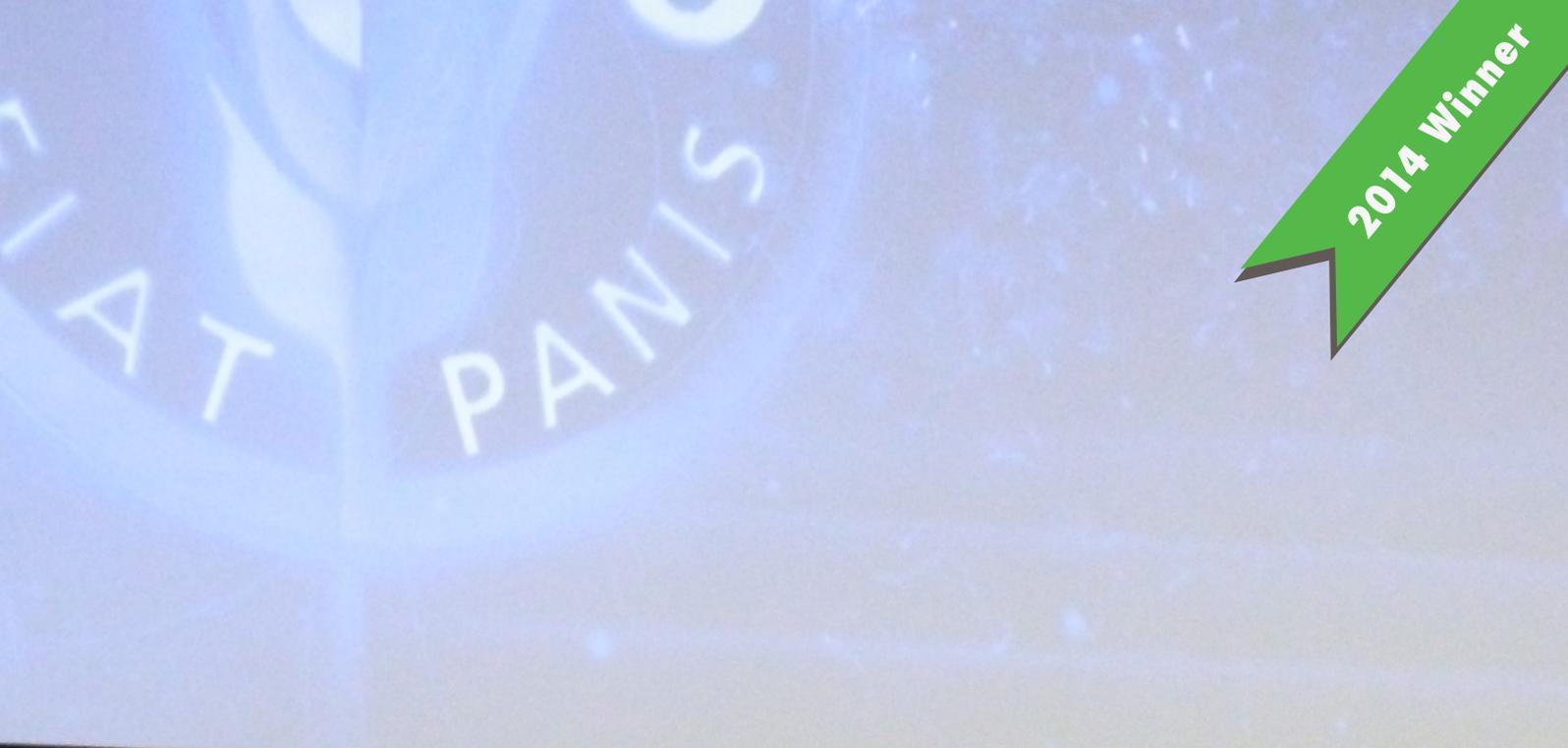
- Enabling a Ugandan agricultural librarian to drastically reduce the use of print resources, minimizing congestion in the libraries while boosting usage and output.
- Empowering a Kenyan librarian to embed Research4Life usage across ten campuses, ramping up research and demonstrating that the library is research’s digital backbone.
- Equipping new research centre in the Maldives to educate the young democracy’s future scientists and policymakers.
- Inspiring a health librarian to write her PhD on solving low Research4Life uptake and developing a powerful training infrastructure at Ugandan universities.
- Driving a Kenyan librarian to become an expert on information technology and electronic data resources at her university, collaborating with doctors and nurses to find the research they need to effectively treat their patients.
- Challenging another Kenyan librarian to specialise in electronic data resources and train new students in Research4Life within a month of starting classes.

- Enabling a tech-savvy Honduran medical librarian to create a one-stop virtual medical library, resolving security issues which had previously prevented access.
- Inciting one of the early adopters in Nigeria to turn around medical and nursing curricula to include information literacy and Research4Life training.
- Supporting another Ugandan librarian to use Research4Life at Makerere University, which has seen a substantial rise in research productivity.

If reading this book inspires you to learn more, whether as a participating institution, publisher, technology partner, journalist, donor, or policymaker, please contact us at: info@research4life.org.

Ylann Schemm, Chair of the Research4Life Communications and Marketing Team and Elsevier Foundation Programme Director.

2014 Winner



From Entomologist to Agricultural Librarian

Onan Mulumba - Uganda



Becoming a master trainer equipped one librarian to fuel evidence-based agricultural research and innovation in Uganda.

As an entomologist training Ugandan beekeepers how to better produce, process and market honey on the domestic and international markets, Onan Mulumba faced many challenges posed by the lack of up-to-date, evidence-based scientific information. “There were pests and diseases that attacked the bees,” Onan states. The beekeepers also needed to know how to construct modern beehives from local materials and how to process the honey to meet international standards.

“I had to look for solutions,” he explains, “It would have helped to have information on the research being done inside and outside Uganda to train the beekeepers better.” But with aging textbooks and intermittent Internet access as his tools, Onan’s search for solutions produced more frustration than answers.

At the same time, Onan also worked as a high school biology teacher, but found that poor resources prevented him from effectively training his students. When he learned that a post as an academic librarian had opened up at Uganda’s prestigious Makerere University, he jumped at the opportunity. In 2007, he joined the 42,000-student institution as an agricultural librarian trainee.

“I was very proud of having a new direction in my career learning how to process and manage information resources,” he proclaims.

Initially, Onan spent most of his time helping students and researchers locate textbooks and print journals. “Book circulation was very high and it was a lot of work to reshelve everything,” he recalls, “I would be very exhausted by the end of the day.”

After receiving training in the use of electronic resources and the Research4Life programmes, his professional activities changed dramatically. He now spends much of his time conducting training sessions for researchers, teaching staff and students.

The increased use of Research4Life databases has drastically reduced requests for books and print journals. Students jockey for access to the library’s computers. Assisting library users now involves helping them find the precise key words to improve their search results or gain access to full-text articles when they are not readily available.

To maximise the benefits of the various Research4Life programmes, the librarians work collaboratively in the training sessions and refer library users to colleagues who have expertise in particular fields

such as geography, nutrition, the environment and tourism, explains Onan, who specialises in agriculture. Research4Life has helped boost the quantity and quality of the faculty's publications as well as student dissertations. It has also fueled scientific innovations. Makerere researchers have developed a new bacteria-resistant tomato; bred four soybean varieties that are high yielding, early maturing, and resistant to leaf rust disease; developed new technology to increase beef production; and established new protocols for banana tissue cultures.

As scientific output has increased, so has the University's ranking and academic visibility. Faculty and students acknowledge the role Research4Life has played in their professional development. "AGORA was my saviour during my doctoral studies," Dr. Abel Atukwase declares.

Kamatara Kanifa credits Research4Life with helping her design the experiments for her Master's and PhD theses. Dr. Jeninah Karungi says he regularly uses Research4Life in his teaching and the preparation of his scientific papers for publication.

Access to thousands of online journals, books and databases has transformed the way librarians are thought of at Makerere University, explains Onan. "Instead of viewing librarians as mere book dust removers, they see us as resourceful information agents without which research is impossible."

Makerere University is also making the latest agricultural research findings available to farmers confronted with pest infestations and plant diseases. "The farmers come from great distances to the different Makerere University campuses for advice," says Onan, "They want an immediate solution because the new crop pests in Uganda are very destructive. We can now search the databases to get the knowledge they need."



Onan Mulumba

The pride he takes in contributing to improving Uganda's scholarship and food production has motivated Onan to pursue his studies.

"Now that I have experience in searching for scientific information from Research4Life, I see myself in five years with a PhD in Library Science, using my background in entomology, and taking on new academic roles in teaching, writing and publishing," he says.

**Onan Mulumba, Agricultural Librarian for the College of Agricultural and Environmental Sciences, Makerere University, Uganda.*

Honourable
Mention

A Librarian by Passion and Profession

Cynthia Kimani - Kenya

Cynthia Kimani embeds Research4Life training and usage across the ten campuses of the Kenyan Medical Research Institute, ramping up research output and proving the library is a digital backbone of research.

A decade ago, when Cynthia Kimani began work at the Kenya Medical Research Institute (KEMRI), librarians performed on-line literature searches for scores of scientists on a single computer, “I experienced having to carry out massive literature searches and watched the researchers facing challenges on the computers,” she said. Today, KEMRI has gained recognition as a leading health research centre in the region.

The Kenya Medical Research Institute is committed to improving quality of human life and public health through Innovative Research. KEMRI carries out specialised diagnostic services in Histology, Endoscopy, TB, HIV-P3, Hepatitis B I, and public health among others.

“All of this requires access to scientific information,” explains Cynthia, KEMRI’s Systems Librarian, “The library is the backbone of research. Without information and knowledge, you can’t reach the end point of innovation.”

Several years ago, KEMRI upgraded its Internet access and outfitted its library, laboratories and offices with new computers. But long before these improvements, Cynthia recognised the importance of training scientists to do their own

literature searches, “The scientists know their exact information needs,” she states.

By 2004 she had begun informally training researchers in basic Internet search concepts and the use of Research4Life resources. Cynthia created a digital library to produce an electronic catalogue. In addition, she has carried out individualised training on the Research4life programmes, including e-mail alerts and guidelines to users online. Through this initiative, the library has received support from management and the ICT department on identifying the needs for users, making the KEMRI Headquarters Library a major communication hub today, equipped with space, computers and WI-FI connectivity for users to plug in their laptops and access the Research4Life databases available.

“Research4Life is our main source of online information serving the Institute’s 10 centres country wide, Its impact has been tremendous. Scientific innovations and activities are all mostly supported by Research4Life.”

In 2005 Cynthia was asked to set up a digital satellite library at KEMRI's East and Southern Africa Centre of International Parasite Control. It became evident that researchers would have to learn to conduct their own on-line literature searches. Cynthia wrote a proposal recommending intensive training sessions to teach computer basics and the use of Research4Life programmes. The support she received from directors at KEMRI's centres marks a high point in her career.

"I personally went to a few Centre Directors and explained the need for training and why the library was involved in this initiative," she explains, "I received a lot of support and we rolled out our first training. The most humbling experience was when the Centre Directors supported their department by attending the training."

KEMRI now mandates quarterly library-run training sessions for all departments and new graduate students. "Research4life has improved the image of the library within the Institute and especially among the scientific group," she states. Cynthia's initiatives extend beyond KEMRI. To spread the word about the impact Research4Life resources can have on research in all sectors, Cynthia promotes it at the Institute's annual Scientific Workshop (KASH) that brings together scientists from across Kenya and the region. "This way I am able to create awareness," she adds.

She trained nurses in the use of the Research4Life resources in 2009 and 2010 as a representative of the Association for Health Information and Libraries in Africa (AHILA). "The goal was to impart health information searching skills to nurses as a major function of healthcare providers," she states.

As KEMRI's Systems Librarian, she wants to ensure the library's role as an electronic learning centre where researchers, students and other users can get training in all Research4Life databases. A



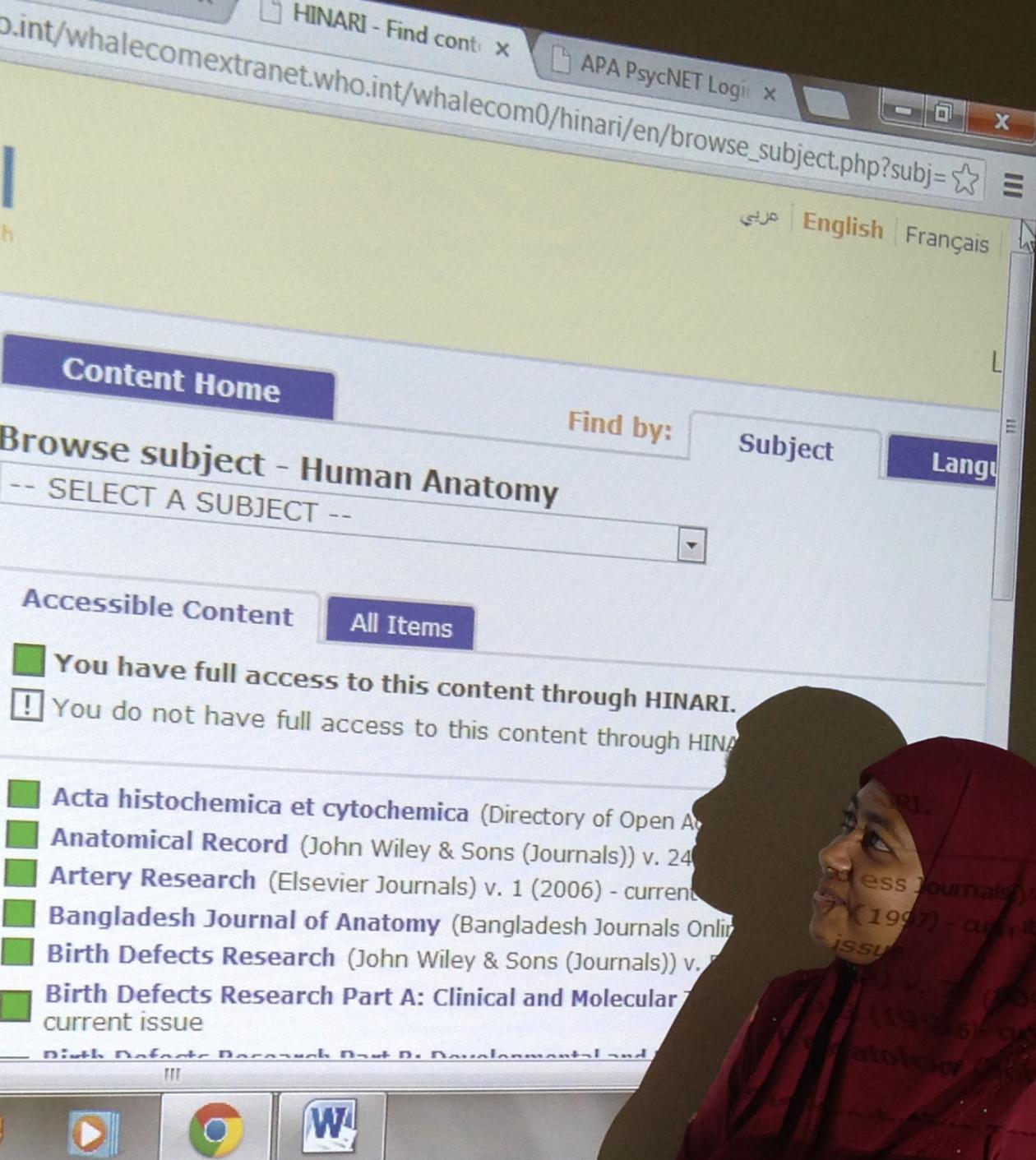
Cynthia Kimani and the participants of the Research4Life trainings that she facilitates at KEMRI in Kenya.

recent example is a course organized for KEMRI's Intellectual Property Department in the use of ARDI.

"Because KEMRI has ventured into the area of innovative research activities, access to Research for Development and Innovation will be vital," she comments.

Passion for her profession has spurred Cynthia to continue her education. She is currently enrolled in a Masters degree programme in Information Science and plans to earn a doctoral degree. "This will enable me to grow as a librarian, especially in the teaching fraternity," she states.

**Cynthia Kimani is the Librarian at the Kenya Medical Research Institute Library (KEMRI), Nairobi, Kenya.*



Boosting a Young Democracy

Shaba Shabana - Maldives

Maldives National University's new Postgraduate Research Centre will use Research4Life to build capacity and help educate the young democracy's future scientists and policy makers.

The Maldives National University recently opened a Postgraduate Research Centre that it hopes will become recognised nationally and internationally for quality teaching, scholarship and academic research.

Research4Life is the research platform the University needs to achieve this goal, Head University Librarian Shaba Shabana explained.

I can envision research and vital discoveries that will be found, and policies and procedures that will be developed and initiated, based on medical and other scientific evidence obtained through Research4Life.

The use of Research4Life has grown steadily at the capital city, Malé and four island campuses. Due to the dispersed geography of the country, use of the electronic resource has become a basic part of student and staff information literacy training. Even before visiting the library, students, researchers and health professionals from the Faculty of Health Sciences and other faculties would log in and begin an information search via HINARI or e-books,

Shaba says. She expects Research4Life's OARE and AGORA to provide the main gateway to information and research materials for the University's new advanced programmes in environmental science, agriculture and fisheries.

"The outcomes that result from these resources cannot be counted in numbers as they will benefit the entire student and teaching community of the University, as well as the citizens of the country," she explains.

Shaba, who studied Library Science at an Australian university, knows firsthand how access to knowledge can empower people to bring about change. She trains between 200 and 300 students and faculty each year in the use of electronic resources, while also working with library staff to enhance their skills.

Shaba became enamoured of libraries when her secondary school history teacher taught the class to retrieve the treasures their small school library contained.

"From then on, there was no stopping us; we were in the library all the time," she explains. "The library attendant didn't want the library shelves made untidy so she prohibited the students from entering without a teacher."



Shaba Shabana giving a training on HINARI at the Maldives National University.

“I thought, if the shelves are messy that means people are using the library,” Shaba says, “It was not right to keep information from people.”

The Maldives did not have a university degree programme in Library Science when Shaba finished her secondary studies in the mid 1990s. She found work as a library trainee at the Institute of Health Sciences Library. It consisted of one room filled with books. Everything was done manually. Inventory as well as the borrowed materials were tracked in a logbook. There was no proper catalogue. Without any formal library training, Shaba and a colleague created a basic catalogue using Excel and established rules for borrowing library materials.

As the Republic of Maldives prepared to open

its first university, Shaba obtained a government scholarship to study Library Science in Australia. During this period, all the institute libraries were centralised under a central management. After graduation, she returned to the Central Library with credentials that gave her a role in policy decisions. She convinced the heads of the various faculties to incorporate training in the use of Research4Life and other electronic resources in the first year degree programme requirements.

Research4Life training sessions also became part of the University’s annual staff development workshops. “If we can encourage people to use Research4Life in their research and to publish, we can build up this young, democratic country more,” she says, “It is my goal to be part of this change in the future.”

Her first step is to make students aware that the resources exist and are available for free. Then she explains the importance of using Research4Life to find organized, peer-reviewed sources of information rather than relying on ordinary search engines.

Shaba believes that high-quality, evidence-based, scientific literature is essential to enable researchers and students in the new Environmental Science programme to find ways to protect the island nation from threats posed by global climate change. “We are educating the students who will become future policy makers,” she announces, “Research4Life can help them make better, informed decisions.”

**Aishath (Shaba) Shabana, Head Librarian, Maldives National University Library, Malé, Republic of Maldives.*

Pioneering at Makerere

Alison Kinengyere - Uganda



Research output at the Makerere University College of Health Sciences has helped raise the University's overall ranking to 9th in Africa.

Library Information Science was a new course of study when Dr. Alison Annet Kinengyere was an undergraduate at Makerere University from 1993 to 1996. "We were pioneers and I decided to go with the changing times," says Alison, now Head Librarian at Makerere University's Albert Cook Medical Library.

After working for several years, Alison returned to Makerere in 2001 to begin graduate studies. Electronic resources were still rare, she explains, "People were doing research that was not comprehensive because they did not have access to the literature."

The University registered with Research4Life in 2005 and Alison, by then a medical librarian at Makerere, attended a workshop organized by the Information Training and Outreach Centre for Africa (ITOCA), a capacity building organization aimed at enhancing information and communication technology skills for librarians and researchers. The workshop marked a turning point in her professional life.

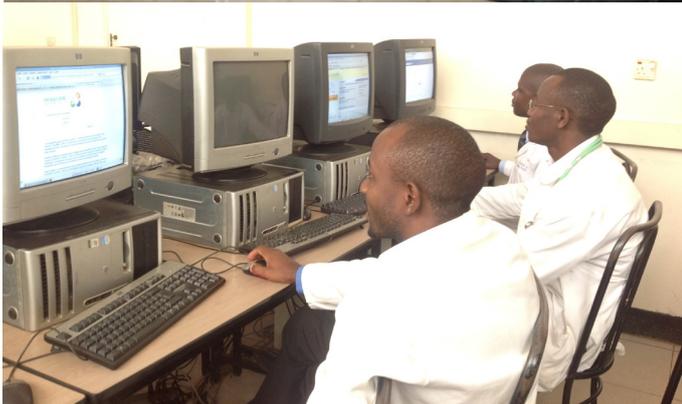
"Before 2005, the medical library had difficulties accessing health information," she recalls. "The main resource was PubMed where the majority of results are available in abstract form. With HINARI a very big problem was solved, as most of the articles

could be accessed in full text." Research4Life also radically reduced the library's spending on costly document delivery services, since most of the articles were accessible online for free.

But even when scholarly electronic information became available, D. Kinengyere's doctoral research indicated that was still under-utilized at Ugandan universities. To remedy the negative impact this has on learning, teaching and research, she recommended building a more powerful training infrastructure. Makerere University put that recommendation into practice.

Research4Life is improving the knowledge gap between the rich and developing countries.

As librarian in charge of information literacy at the College of Health Sciences, Alison leads group training and one-on-one sessions for fellow librarians, medical and graduate students, researchers, faculty, doctors and nurses. She teaches them how to use HINARI, OARE and AGORA, how to export references to a reference manager database and how to refine their literature searches.



Dr. Alison Kinengyere (standing) facilitating a workshop on finding and using health information.

and academic institutions across Uganda come to Makerere's Albert Cook Medical Library to get biomedical information they cannot find at their own institutions.

Lack of access to Research4Life, insufficient search skills, and poor Internet connections are the main reasons they cannot obtain the materials at their own institutions, explains Alison, who has conducted workshops across Uganda and in Ethiopia and Tanzania. She urges academic librarians to register for Research4Life and to attend courses with a teacher who can train them in better practices.

"A physical workshop is better because it avoids so many problems with the Internet like the power going on and off," she says.

Research4Life users need training in search strategies to help them target the most useful information for their particular research, she explains, "For some people using Research4Life there is information overload. They get too much information and fail to get the information they need."

Research in life-threatening conditions such as cancer has increased significantly at the College of Health Sciences and contributed to the rise of the University's ranking to 9th in Africa. The College has also developed evidence briefs for health policy on topics such as maternal and infant mortality and the integration of palliative care into the national health system. Systematic reviews of the findings were developed by the College and made available in the Cochrane Library which contains independent evidence to inform healthcare decision-making..

Health workers, faculty and students from hospitals

**Dr. Alison Kinengyere, Head of the Sir Albert Cook Medical Library at the Makerere University College of Health Sciences, Uganda.*

RESEARCH4LIFE FACTS AND FIGURES

More than

7700 Registered Institutions

Over

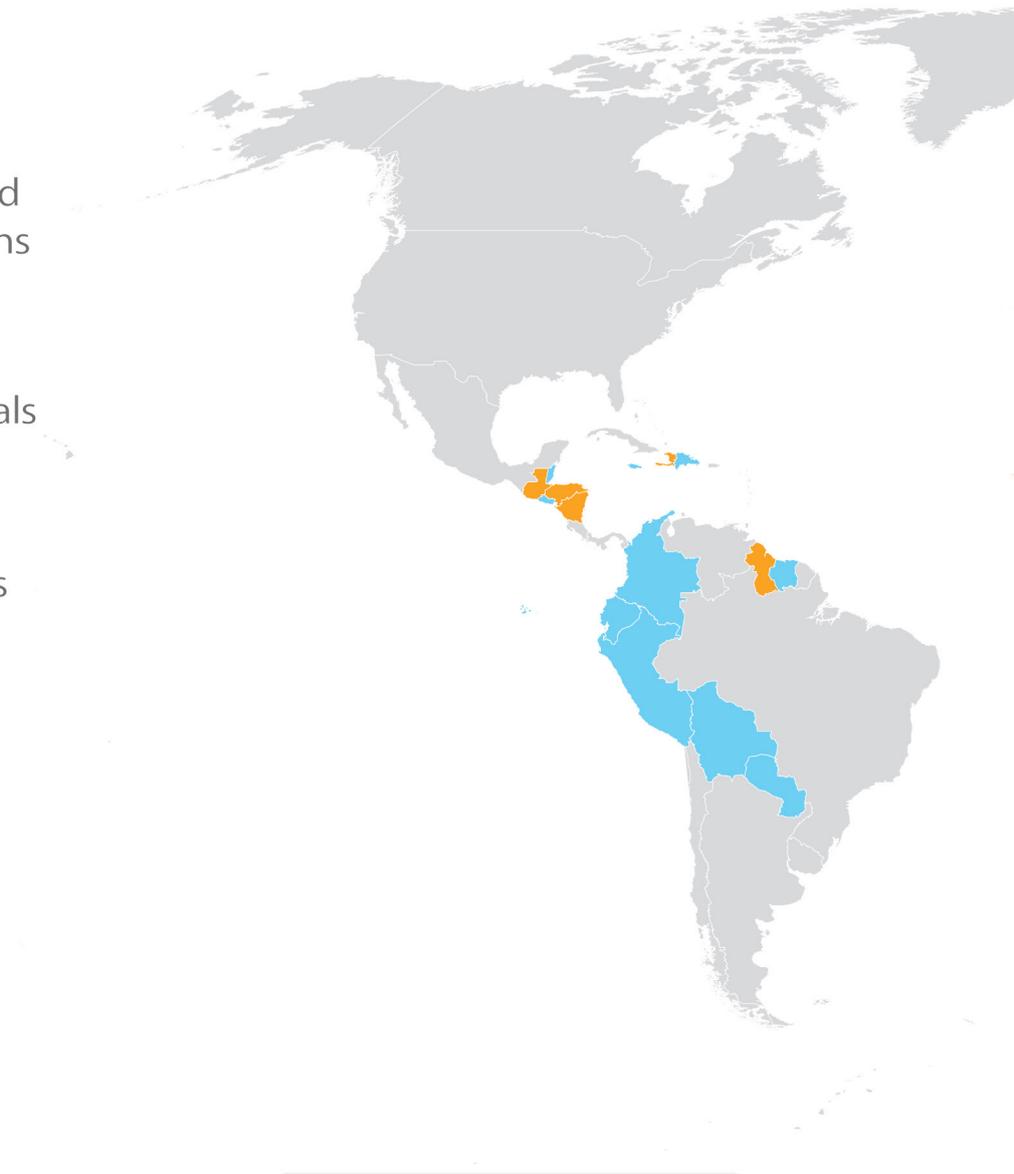
14,500 Journals

Over

30,000 Books

Over

185 Publisher Partners



HINARI
Research in Health



5600

Registered institutions



13,000

Journals



29,000

Books



GORA
Research in Agriculture



2400

Registered institutions



5300

Journals



4200

Books

Research4Life eligible countries

Low cost access

Total Gross National Income (GNI) is at or less than US\$ 1 billion;
Gross National Income per capita (GNIpc) is at or less than US\$ 5000

Free access

UN Least Developed Country List; Human Development Index (HDI) is at or less than 0.50;
Gross National Income per capita (GNIpc) is at or less than US\$ 1600

OARE

Research in the Environment



2600

Registered institutions



5600

Journals



14,000

Books

ARDI

Research for Innovation



250

Registered institutions



3800

Journals



16,000

Books

*Statistics cited as of April 2014



Mining Research4Life for the Good of the Patient

Nasra Gathoni - Kenya

Horizon and Beyond
2 - 5 July 2013

HINARI highlights the indispensable role of medical librarians collaborating with doctors to improve and save lives.

Two-term AHILA (Association for Health Information and Libraries in Africa) President Nasra Gathoni wasn't sure she would make a career in Library Sciences when she began her undergraduate studies 15 years ago. With few electronic information resources available in Kenya at that time, she worried that "traditional librarianship would be boring." An internship as a hospital librarian with access to online health and biomedical journals through Research4Life transformed her view of the profession. "Doctors would ask me to search for the latest evidence-based information to improve or save the life of a patient," she explains, "I could get hundreds of online journal articles for free with the click of a finger. The excitement was amazing."

Research4Life was the best thing that happened to Africa.

A librarian at Aga Khan University since 2005, Nasra describes herself as a "multi-tasker," whose duties include resource acquisition, information literacy training, facilitating access to Research4Life resources and conducting literature searches for a variety of library users.

"As much as we know that some have problems using the resources, we notice that they don't

automatically apply for the training sessions," she explains, "We are always looking for more innovative ways to get more people to come for training."

The University's undergraduate nursing students, postgraduate medical students, doctors, researchers and faculty know they can count on Nasra's electronic resource knowledge and skills. She also promotes Research4Life awareness and training for health information professionals outside the University. She participated in training about 60 of the nation's most senior nurses during workshops organized by the National Nursing Association of Kenya and the Kenya Chapter of AHILA.

The provision of accurate, relevant and up-to-date information results in better decisions by healthcare providers and ultimately better healthcare.

"Quite a number of the nurses had not even heard about HINARI and I felt very honoured to tell them about such a useful resource," Nasra says, "We urged them to register their institutions for the Research4Life programmes when they returned to their communities." She adds that these efforts



Above: Nasra Gathoni training postgraduate medical education students in use of HINARI. Below: Nurse participants stretching during the training session interlude.

support AHILA's goal of improving the health of the society through enhanced access to and use of electronic resources.

Statistics confirm a significant increase in the use of Research4Life programmes linked to continuous training at the University. Students rely on Research4Life to write papers and prepare for exams. The faculty depends on Research4Life to plan lectures and develop projects. Doctors use Research4Life to treat patients and conduct research.

Equally compelling proof of the importance of Research4Life is the reaction from the University community when they experience a problem with

access. A technical glitch during migration of the Research4Life portal to a new server put the programmes temporarily offline.

"Within 10 minutes people began calling and calling," she states. "So many calls is a good indication that people find it useful, they like it and they want it there all the time."

The new recognition of the indispensable role of librarians as information technology experts has elevated their status within the academic community. For academic librarians the question is not merely how to access information but how to help healthcare workers locate the latest information to help in their practice, she says.

"I get calls from doctors saying, 'they have a patient with this very rare case and they are not sure how to handle it,'" Nasra states, "I can't do what the doctors are doing but they also can't do what I am doing. We need to work together for the good of the patient."

**Nasra Gathoni, librarian at the Aga Khan University, Kenya and President of the Association for Health Information and Libraries in Africa (AHILA).*



Embracing Research4Life

Fredrick Otike - Kenya

Mastering e-resources, Fredrick Otike promotes Research4Life as an expert information specialist.

As a young student growing up in a remote village in southwest Kenya, Fredrick's secondary school lacked electricity and running water, not to mention a library and science laboratory. So it's not surprising that Fredrick looked forward to his school holidays in order to travel to his public library, which was many kilometres away. The library represented a calm sanctuary for Fredrick, now Head Librarian at Dedan Kimathi University of Technology. "During school holidays, I would always visit the public library just to have the feeling of a quiet reading environment that I lacked at our school," reminisces.

After undergraduate studies at Kenyatta University, he followed his dreams of working in his sanctuary, earning a Masters Degree in Library and Information Sciences at Moi University. "This is where my dream of becoming an academic librarian strengthened," he explains.

Fredrick began work as an assistant librarian at Dedan Kimathi in 2010. The institution, which gained its charter as a university in December 2012, offers programmes in Engineering and Technology, Business and Nursing.

But it wasn't all tranquility for this newly appointed

professional. "Students and lecturers were always complaining about our insufficient resources," he says, "Before joining Research4Life, we used to rely on hard books and journals which were not recent and up-to-date. The library users had no faith in the library services."

He also realised the need to learn more about electronic data resources to better serve the research community. "Researchers used to pester us to subscribe to the Research4Life resources. We were even surprised that most researchers had more knowledge about the resources than some librarians."

The institution registered for Research4Life and in 2011, Fredrick attended a training workshop at Kenyatta University in Nairobi, where he began to see the possibility of mastering the tools needed to provide top-notch library services. He was soon certified in Research4Life and TEEAL programmes.

I felt empowered by the availability and accessibility of Research4Life resources.

He used the skills and knowledge he gained to train

researchers, doctors, lecturers, students and the other university librarians.

Together, the university librarians and e-learning staff conduct training workshops in the computer laboratory using PowerPoint™ presentations, practice sessions and quizzes. All new university students now participate in the workshops within a month of beginning classes. Nursing students, who train at hospitals and healthcare centres off campus, have also benefitted.

Ever since we introduced and conducted training for these students on HINARI information resources, an impact of satisfaction has been evident. These students are now able to access useful medical information resources without necessarily visiting the University Library.

Research4Life has also contributed directly to the advancement of Fredrick's academic research with the publication of a book and six peer-reviewed research papers on Library Science. He would welcome refresher courses designed to keep librarians up-to-date on developments in electronic resources.

"Libraries are supposed to embrace the new information technology and communication lest their role become redundant," he says, "If librarians are equipped with relevant knowledge and skills on electronic resources, they will be able to first appreciate the new knowledge; they will then be able to train more library users."

Fredrick would like to pursue a doctoral degree in Information Studies. His research area of choice is an examination of the impact of information technology on the future trends of academic libraries in developing countries.



Fredrick Otike giving Research4Life trainings at the Library of Dedan Kimathi University, Kenya.

**Fredrick Otike, Librarian at Dedan Kimathi University of Technology, Kenya.*



Designing the One-Stop Medical Library

Ovidio Padilla - Honduras

Tech-savvy Honduran medical librarian creates a one-stop virtual medical library, resolving security issues blocking access.

Ovidio Padilla knows the true value of virtual learning and research. Since joining Honduras' National Medical Library in 2004, he has used every opportunity to expose scientists and researchers to the benefits of Research4Life. The Medical Library has also assumed the role of HINARI programme trainer in Honduras in recognition of the excellent information resources available to the health sector. Ovidio develops training as a daily service to anyone in the institution.

"I very much enjoy my responsibilities, which focus on developing search techniques to provide alternatives to traditional offline research," explains Ovidio, "For a few years now, we have used the Moodle platform for building Virtual Classroom Training at our institution, providing security controlled Virtual Campus access to mobile devices for students and teachers as they continue in their university career."

Ovidio became aware of Research4Life through collaboration with the PanAmerican Health Organization (PAHO) and other information centres throughout the region. He soon realised the impact that access has on learning. Both Ovidio's technical savvy and passion for Research4Life have proven to be highly valuable qualities for his institution, "Before I joined, the University found

it almost impossible to provide online updated information services to its students, researchers and faculty. Furthermore, periodicals were too expensive and the institutions budget was extremely limited. The situation was very bleak: limited, almost nonexistent resources combined with the reality of having no internal tradition of consulting information resources online."

Prior to Ovidio's appointment, the University also had major structural issues with their online network, using complicated methods to maintain security and access. "Through my technical expertise, I could see the solution was clear, yet simple: to create a 'virtual' mask to provide a broader and easier entry point for our faculty and students, while bringing vital access to HINARI through controlled classroom management (a virtual medical library)," he explains, "In this way, users enter and are provided access without seeing the password which avoids problems of illegal dissemination." Today, students, teachers and researchers regularly visit the Medical Library, which provides access to dynamic databases and electronic journals through their Virtual Library and Virtual Newspaper programmes.

Ovidio is dedicated to building the University's capacity and training programme. From the moment they enter the University, all students in

Health-related disciplines receive Research4Life training. Scientific researchers, students, teachers and administrative staff also receive continuous support and guidance in access and online research techniques. Ovidio organizes workshops and strategically tracks the training and ongoing support provided by the Medical Library. His department also provides updates on the latest HINARI resources.

Ovidio has witnessed the impact of his efforts. “The library now has a wide range of resources and users use these as their main source of information. The amount of scientific research in our institution has significantly increased the interest of the University authorities,” he says, “Although we would like to see more Spanish language resources available in Research4Life, students, researchers and faculty alike are providing inputs to national research material for ongoing participation in international fora. The University authorities now understand the necessity of continuing to encourage and assist teachers in online research techniques as well as the benefits of Research4Life.”

Ovidio believes that access to these important resources has significantly increased the quality and quantity of research at his university, which now ranks number 1 in the country. They have increased their scientific publications from 37 in 2009 to 90 in 2013 and of these publications, 66% are in the area of health. In 2004, they established the Journal of the Faculty of Medical Sciences which was re-launched in 2012 as the Latin American Literature in Health Sciences journal (LILACS). The Medical Library plays a prominent role on the journal’s editorial board and provides training for literature reviews using HINARI resources.

Ovidio, who aspires to earn a PhD in Information Management Technologies, is known in his institution as a powerful advocate of Research4Life. “HINARI is most used in the National Medical Library



Ovidio Padilla and his team at the National Autonomous University of Honduras’ National Medical Library.

but we recently established strategic partnerships with the University of Agriculture,” he says, “They, too, have become empowered by using AGORA and OARE and they too will see the immense benefits of this incredible opportunity given to us by leading publishers and other partners from around the globe. I am confident that the resources offered by Research4Life continue to be a permanent reference in the research and publications in our forward-thinking institution”.

**Ovidio Padilla, Information Technologies Coordinator at the Faculty of Medical Sciences, National Autonomous University of Honduras’ National Medical Library, Honduras.*



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Leading the way with HINARI

Grace Ada Ajuwon - Nigeria

Changing behaviours in learning, research, teaching and patient care transforms output and treatment.

When the World Health Organization held its first HINARI training programmes in Dar Es Salaam, Tanzania, in 2002, librarian Grace Ada Ajuwon was there. "I was among the first group of librarians in Africa to be trained in the use of HINARI," says Grace, Senior Librarian of Reference and Information Services at the E. Latunde Odeku Medical Library, College of Medicine, University of Ibadan, Nigeria.

Since that training programme, more than a decade ago, Grace has used HINARI to conduct her own research and taught faculty, students, doctors and other healthcare providers to become proficient in the use of Research4Life programmes.

In 2003, Grace wrote a research paper, published in BMC Medical Informatics and Decision Making, which concluded that first year clinical and nursing students in Ibadan, Nigeria were not taking full advantage of the opportunities computers and the Internet offered to enhance their medical education. She recommended the inclusion of computer education in medical and nursing curricula and the installation of computer laboratories to increase students' access.

Turning her words into action, Grace has organized about 30 Research4Life workshops attended by an

estimated 4,820 medical and research staff and students from her institution, as well as visitors from other parts of Nigeria and other regions of Africa.

Using HINARI, she has also continued her research on the role of the Internet in health information and patient care, with a number of additional papers published in peer-reviewed journals.

Research4Life has changed the way researchers and students at the University access scientific information. They no longer rely on outdated books and journals available in our library for learning, research, teaching, and patient care. Now most of the library's users prefer electronic books and journals to the print versions.

Using the institution's Research4Life user names and passwords, researchers and students can access up-to-date, quality information electronically from their computers in the comfort of their homes, offices, classrooms, residence halls, computer laboratories and other locations where they have Internet access. The library's sessions empower



Grace Ada Ajuwon giving Research4Life trainings at the University of Ibadan.

them to conduct their literature searches without assistance from a librarian, as was customary in the past, “This enables them to write better literature reviews for their dissertations and manuscripts,” Grace explains.

Challenges remain. Power outages plague the country, often making access to the Internet difficult. The installation of inverters in the library, paid for by donors, has helped mitigate the problem. Funds are needed for more training programmes and additional bandwidth. Access to full-text articles is sometimes denied to researchers even though Nigeria is on the list of countries entitled to such access, and librarians need to report the problem to get the issue resolved. Despite all this, however, the continuing improvements brought to access to Research4Life programmes have transformed the work of librarians and researchers.

The days of carrying out tedious, time-consuming

and often fruitless manual searches are over. Access to electronic journals, e-books, databases and other relevant resources enable Grace to promptly retrieve information and send it on request to the library users, while also giving them skills to access information themselves. These successes have increased Grace’s visibility as an academic, given her more self-confidence, and brought her the joy of sharing her knowledge with students, faculty members and medical professionals.

“I feel fulfilled because, from the personal testimonies I receive from the researchers I have trained, I am meeting an important need,” she declares.

**Dr. Grace Ada Ajuwon, Senior Librarian of Reference and Information Services at the E. Latunde Odeku Medical Library, College of Medicine, University of Ibadan, Nigeria.*



On the Front Lines of Research

Caroline Kobusingye - Uganda

My CLEAR Report
Research, Action, Plans, Evidence
Community, Government, Civil Society
Innovating, Inspiring, Improving, Promoting
CLEAR

Uganda's largest institution of higher learning boosts usage of evidence-based information through Research4Life.

As a young student, Caroline Kobusingye was planning a career in counseling. "My passion is to help people and I thought that was the best way to do it," she says. Working in a university library during school vacations convinced her that library science is also an extremely valuable means of helping people achieve their goals.

Now a librarian at Makerere University, Caroline guides faculty, students, medical workers and researchers to the evidence-based information they need to promote health and development and achieve their goals.

As a national e-resources coordinator, Caroline often travels outside of the capital Kampala to provide training in Research4Life and other electronic resources. She urges librarians at the institutions she visits to sign up for Research4Life and guides them through the registration process.

Recently, Caroline brought her information technology skills to the University of Juba in South Sudan where she trained librarians, lecturers and researchers to use Research4Life programmes under a temporary arrangement.

South Sudan became an independent state in July

2011 following a referendum. Since mid-December 2013, growing political instability has created significant challenges for the country.

Most did not know that Research4Life existed, this introductory workshop was a starting point. They saw that Research4Life could help them access important publishers with journals their institution could not afford. They were looking forward to more training, but unfortunately they went back into war.

At Makerere University, Caroline works at the institution's main library, known as Maklib, which oversees nine college libraries, the libraries of the medical and other schools and a book bank system.

The use of electronic resources at Makerere has flourished in recent years. Research4Life logins soared from 4,500 in 2008 to more than 14,000 in 2012.

A large, new extension has significantly increased library space and the University has invested heavily

in computers. Uganda's largest institution of higher learning provides continuous e-resource training for its students, faculty, and researchers. New students get training during orientation. A two-week information management course devotes a full session to the use of Research4Life programmes and their importance.

When students begin to tackle class work, they really see the reason to learn about Research4Life resources and they come to the librarians for more training, Caroline says. She advises users conducting literature searches to venture beyond the boundaries of the Research4Life programme designated for their area of study. "I tell them HINARI is for health, AGORA is for agricultural and OARE is for the environment but not to have a biased mind because they can get a lot of information from all of the Research4Life resources."

Makerere University added ARDI as a resource at the end. Caroline says the programme designed to encourage the development of new solutions to technical problems needs a 'friendlier interface' so that more people will use it. "It is not user friendly so many researchers go back to HINARI or AGORA," she explains, "But ARDI is scheduled to launch a new user interface in early 2014 that matches the other programmes, which should make these researchers happy."

Caroline also urges for more training in Research4Life for librarians. "Training for the trainers builds confidence," she says, "Once you show users that you don't know, they will not come back to you."

In contrast, librarians who are proactive and make it clear to users that they are ready and able to assist are recognised as crucial academic assets. Caroline remembers a master-level agricultural student who was struggling to find material for his dissertation. After teaching him to navigate



Participants attending a Research4Life training at the Makerere University Library with Caroline Kobusingye.

Research4Life, the student told Caroline he believed he could complete his work within a year.

"He came back later to tell me he had submitted his dissertation and was awaiting approval," she reveals. This concrete example illustrates what Caroline considers the biggest rewards of her profession.

"The joy as a librarian is seeing people achieve their goals because these students want to study and finish their research and a lot of them are stuck," she says, "It is a great thing to help people achieve what they set out to achieve when they have lost hope."

**Caroline Kobusingye, Periodicals Librarian & National E-Resources Coordinator Librarian at Makerere University Library, Uganda.*

“Research4Life has enhanced our researchers’ accessibility to scientific information by making current and relevant materials available faster, 24 hours a day. Not only has it improved the University’s research productivity, but has increased my institution’s ranking within Nigeria and Africa. We have made some vital discoveries through using Research4Life, including development of herbal drugs from Nigerian medicinal plants.”

Kofoworola Jagboro, Systems Librarian
Hezekiah Oluwasanmi Library, Obafemi Awolowo University, Nigeria

“The research information and its easy access have changed drastically the whole academic activities of the Institute. Faculty members, senior doctors, researchers and junior residents are involved in research works. These research works are being published in national and international journals. All departments are organizing seminars, training, workshops and regular journal clubs in which the research information accessed through Research4Life is the major component to assist these activities.”

Binod Kumar Yadav, Senior Librarian
B. P. Koirala Institute of Health Sciences, Dharan, Sunsari, Nepal.

“The Library Health Reference area of the University that serves teachers and graduate students has changed the expectations that users have of ‘traditional’ libraries today. HINARI is a key part of this offering: since its existence, it has been known in the academic community in Cuenca and beyond. We are regularly producing Research4Life training workshops for teachers, researchers, undergraduate and postgraduate to keep up with this high demand.”

Teresa Dilia Torres Verdugo, Reference Librarian
Health Area, Centre of Documentation, Faculty of Medical Sciences, University of Cuenca, Ecuador

“Many of our researchers use AGORA, both for the quality of the service and for the speed with which they can access the information online. Due to this high demand, I am currently creating new library information resources and repackaging our current marketing materials featuring AGORA.”

BGS Kariyawasam, Head of the Division and Chief Librarian attached to the Library & Information Division
National Aquatic Resources Research & Development Agency (NARA), Sri Lanka

"We actively promote Research4Life to our Yemeni universities and students. We provide seminars, brochures, and are constantly analyzing how we can continue to develop and enhance our services to feature this unique resource."

Sami Ali Alkholany, Supervisor of Library and Information Services
National Information Center, Yemen

"I have personally benefited from the access to Research4Life. Since I am able to offer the latest research journals that enhance our student's scientific research work, my confidence in my work and career has significantly increased. For example, I was able to assist in the discovery of new research in the University through OARE, focusing on the use of irrigation in growing of vegetables."

Mukashema Dancille, Assistant Librarian
Umutara Polytechnic, Rwanda

"Our university is the largest in West Africa, with a student population of 50,000, academic staff at around 2,000 and over 5,000 non-academic staff. Research4Life has greatly changed the way and pattern of research in the University, because all staff offices have Internet points and most of their information seeking is now directed towards electronics resources. Many researches and discoveries have emanated from literature obtained from Research4Life databases."

Aliyu Abdulkadir, Librarian, Head of ICT Division and Repository Manager in charge of the Institutional Repository
Ahmadu Bello University, Nigeria

"In our institution, some of the researchers and students do not have enough computer skills to access the resources. It is my job to support them by showing how to browse rich databases, and Research4Life is a vital lifeline for these users. When the users encounter a problem I cannot resolve, I contact the Research4Life team via email and they quickly resolve the problem for us. I continue to promote Research4Life by conducting of training to different users and by using the University intranet to reach students, researchers and faculty."

Biruk Megerssa, Chief Librarian and Lecturer
St.Mary's University, Kebele, Ethiopia

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