



Beyond these walls: Sending researchers out with Research4Life in their pocket

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Abstract:

Among the many new roles that science and technology librarians from higher-income countries are taking on, is the role of mentor and trainer to international students and scholars who are part of their educational community for shorter or longer periods of time.

Many educational institutions in higher-income countries have long viewed themselves as international players. The shrinking of the global community brought about by the industrial age with shortened travel and communication times has only accelerated that dynamic for many educational institutions.

As more and more international students and scholars pass through the doors of their institutions, the librarians have learned to take on new roles in response. One of those roles is focusing on the information literacy needs of this international community in their institutions. Part of information literacy training for this community also entails ensuring that those trained are aware of and able to make the best use of information access opportunities in the countries where they will return to study, teach, and work.

The Research4Life partnership offers information access in low-income countries. It began with the HINARI Access to Research in Health programme that was conceived in early 2001 to offer developing country institutions free or nominal-cost online access to the world's biomedical literature. Ten years later, HINARI is now replicated in agriculture (AGORA) and the environment (OARE), and the partnership has grown to include three United Nations agencies/programmes, Yale and Cornell universities, more than 190 publishers of all shapes and sizes, the International Association of STM Publishers, Microsoft Corporation, Ex Libris, and innumerable individuals and institutions who have become champions and ambassadors of the concept.

Among those champions are a growing number of librarians in higher-income countries who inform and train developing country students and scholars on the availability of the Research4Life programmes and other information access programmes, and work to ensure the international patrons of their libraries have the best information skills possible with which to meet the challenges of working in low-income countries.

We will note learning opportunities in this space for librarians from higher-income countries, highlight some case studies of this work, and encourage audience sharing of their own experiences in this new role.

Introduction:

Just as the industrial and internet ages have brought new opportunities and challenges for science and technology librarians in developing countries, so have the same changes to the environment affected the way institutions in higher-income countries interact with and support their students and scholars who arrive on campus from developing country settings. Although the world is now a smaller place, there are still many differences that need to be accommodated, including language, expectations or basic training.

One significant change in the past 10 years is the availability of online scientific literature in the developing world made available through the Research4Life programmes. Research4Life began with the HINARI Access to Research in Health programme that was conceived in early 2001 to offer developing country institutions free or nominal-cost online access to the world's biomedical literature. Ten years later, HINARI is now replicated in agriculture (AGORA) and the environment (OARE). The partnership has grown to include three United Nations agencies/programmes, Yale and Cornell universities, more than 190 publishers of all shapes and sizes, the International Association of STM Publishers, Microsoft Corporation, Ex Libris, and innumerable individuals and institutions who have become champions and ambassadors of the concept.

A number of these champions are librarians in institutions in higher-income countries hosting international students and scholars who introduce those individuals to Research4Life and ensure that the international patrons of their libraries have the best information skills possible with which to meet the challenges of studying, teaching, or working in low-income countries.

Case Study: Forestry and Environmental Studies, Yale University Library

In the thirty years that one author has spent in three academic research libraries (University of Illinois, Utah State University, Yale University) interactions with both international student and researcher populations have always occurred. However it has been in the last eight years while at Yale that the level of interaction has been at its greatest. At Yale, along with

the international student population, there are large numbers of international visitors. One established programme in which the Yale University Library participates is the Yale World Fellows Program. In the last two years, 25% of the fellows have come from countries eligible for the Research4Life programme. These fellows are a targeted audience for Research4Life information dissemination.

Students come to attend the School of Forestry and Environmental Studies (FES) at Yale University, New Haven, CT, USA, from throughout the world. The present master's classes of 2011 and 2012 contain 67 international students (25% of the total master's students) while there are 26 international FES doctoral students (33% of all FES doctoral students). In addition, visiting international professors and researchers come to FES every semester. In the mission of FES is the statement "We recognize that environmental challenges are increasingly international and seek to build a truly global school of the environment." All new master's students are first introduced to library research assistance during their introductory modules that precede the first regular semester of instruction upon their arrival to campus. Periodically throughout each academic year, two or three group library research instruction sessions are offered to students as part of the Technical Skills Modules programme. Also, abundant opportunities for individual instruction are provided. During the 2010-2011 academic year, 87 instances of international student individual or small group instruction were provided. Some international students have attended more than one session so it is impossible to ascertain what percentage of the total international student population in FES receives instruction.

The international students come from many different cultural experiences. Some have had undergraduate studies in the United States of America while others have only experienced educational institutions in their home countries. They come from a mix of countries in all six inhabited continents. These international students are more open to asking for research assistance than most of the American students. This year international students made up over 90% of the individual instruction sessions attendees.

For all students a recurring question is, "Can I access the databases and electronic resources to which Yale subscribes after graduation?" and at Yale the answer is no. This then opens an opportunity to talk with the students about Research4Life. They are referred to the information found at the Research4Life websites. They are also encouraged to contact representatives in their home countries, as applicable, to spread information about the programmes. Only in a minority of cases (probably less than 20%) have these students mentioned previous knowledge of the Research4Life programmes. Unfortunately little interaction between Yale FES graduates and the FES librarian occurs after graduation therefore no information is available about subsequent employment or study nor whether they are making use of any Research4Life resources.

Library instruction in general and Research4Life instruction in particular both provide parts of the positive experience that international students attain in attending Yale. And in return, Yale gains from having international students attending the institution. Yale gains experiences for the academic community's growth; it gains credibility on the international stage; it gains a broad international group of alumni; and, it gains international perspective in its educational goals. The Yale University mission includes the statement "Yale seeks to attract a diverse group of exceptionally talented men and women from across the nation and around the world and to educate them for leadership in scholarship, the professions, and society."

On a personal level, it is the FES librarian's job and duty to provide assistance to the research endeavour in whatever way possible¹. The librarian gains personal satisfaction from helping to teach students how to conduct information research in aid of their further education and in aid of providing answers to world environmental problems.

Case Study: University of Salford

In March 2010, a workshop took place at the University of Salford, College of Health and Social Care for students from HINARI eligible countries, University of Salford library staff, and other interested health and social care students. The workshop gave a brief overview of HINARI and its sister Research4Life programmes and focused on providing advocacy for students who were most likely to return to their own countries.

The workshop was held over one day split into two sessions and was run in a computer facility to allow students to get some hands on experience. The morning session gave an overview of the Research4Life programmes and covered other useful sources of open access information such as the National Library of Medicine's Medline Plus, PubMed Central, Biomed Central, HighWire Press's access to developing countries initiative, MedKnow, Hindawi, and SCIELO. An overview of the World Health Organization's website as an information source was covered with practical hands on work using the statistical tools to extract health data. The afternoon session was devoted to PubMed training and information retrieval skills literacy.

Feedback from both the students and library staff was positive with many participants reporting that they had gained some new knowledge of information resources available to health students from developing countries. One of the most popular items covered in the workshop was the resource POPLINE, a population health resource provided by John's Hopkins University in Baltimore.

The workshop was supported by The University of Salford and their health librarian. There is definitely scope for future workshops aimed at students from eligible countries studying in the United Kingdom, but there is also a need for UK librarians to learn more about the Research4Life programmes and how they can support students who may be returning to resource poor countries to finish off their research projects.

Case Study: University of Florida

Another institution where individuals from Research4Life eligible countries have been trained is the University of Florida (UF). This institution is a large, public research university with numerous post-graduate programmes including ones in the health, agriculture and environment disciplines. One of the authors, a UF emeritus librarian currently has links to faculties and facilities at the university. Working with the staff of the International Center and contacts within the UF Libraries, he has been able to identify visitors, continuing education course students and post-graduate students from Research4Life eligible countries.

This author currently is a Research4Life trainer and realized that there were post-graduate students and short-term visitors at UF that could benefit from having knowledge about the programmes. These individuals could use this when they returned to their institutions in Research4Life eligible countries.

Training conducted include HINARI Short Courses for visitors from the Mongolian Veterinary Medicine faculty (April 2010) and participants in an Emerging Pathogens Continuing Education Course (May 2010 & 2011). In March 2011, the trainer made an AGORA presentation to Animal Sciences post-graduate students from eligible countries and followed up with several Short Courses in May 2011. Key students that were identified included a group of Haitian post-graduate agriculture students and a second group from Malawi.

The primary difficulty encountered has been identifying the post-graduate students from Research4Life eligible countries. At UF, there is no database that is organized by country of

origin for post-graduate students. Consequently, the trainer must identify potential participants by communicating with staff and following up provided leads. Individuals from the UF International Center and UF Libraries have been quite helpful and also an Animal Sciences professor from Nigeria. The logistics of setting up the workshops and communicating with the students has been somewhat complicated but not insurmountable.

Since this author's current activities include conducting Research4Life workshops, he used the HINARI and AGORA Short Courses for the respective students. The AGORA Short Course recently was developed for an Information Training and Outreach Centre for Africa (ITOCA) distance learning course and was used in the classroom setting for the first time at UF. These Short Courses focus on the baseline skills necessary for effective and efficient use of the Programmes' resources and also the available training materials.

There is no precise data of the number of students trained at UF who were aware of the Research4Life programmes but it definitely was under 50%. None of the students appeared to have any formal training and real knowledge of how to use/search the resources. This author has not done any follow-up on how the participants have used the resources upon returning to their home countries. He plans to do this with those that attended courses in May 2011.

When this author communicated with the various International Center staff and UF faculty, they all agreed that the knowledge about the respective Research4Life programmes would be invaluable to the students. The staff mentioned how they receive many requests for access to the UF Libraries resources once individuals graduate. For those from eligible institutions, the Research4Life programmes are a viable option for access to current research literature. The students also felt that the training was invaluable and they stated that they would check on registration and use of the various programs at their institutions and also promote use with their colleagues and students.

At UF, there still are problems in identifying all the potential students particularly in health-related studies. Through the International Center, some progress has been made to set up a mechanism for identifying those that need to be trained in the future. Particularly difficult to identify and reach are visiting academics and researchers from eligible countries. Although they may be at UF for a brief period of time, these are individuals that would benefit from the Research4Life programmes as soon as they return to their institutions.

As a Research4Life trainer, this author is very pleased that he is now also training UF post-graduate students. The contrast between traveling half way around the world to conduct training and being able to train students at a university that is 1.5 KM from his house is instructive. Both types of training have significant benefits. Prior to these local activities, there was a group of potential students literally around the corner that was missing a wonderful opportunity. Identifying even more individuals that would benefit from the knowledge of the Research4Life programmes and their resources is the next goal.

Encouraging Others

Since 2009, trainers for the HINARI programme of Research4Life have conducted five workshops geared towards training individuals, particularly librarians, from higher-income countries at Medical Library Association annual meetings (2009 and 2010), European Association for Health Information and Libraries annual meetings (2010 and 2011) and the International Congress of Medical Librarianship (2010). Since September 2010, the material also has been available as a distance learning course (see <http://mla.mrooms.org/>). Over 100 individuals have been trained via the workshops and online course.

These workshops have been geared towards individuals from institutions with linkages to HINARI eligible organizations – to facilitate the training of trainers and ultimately further the use of HINARI and other Internet based resources at their partners' organizations. The participants of these workshops have gained the skills needed to train visitors to their institutions, post-graduate students from Research4Life eligible countries and, if feasible, conduct workshops on site at the partner organizations.

The training has focused on the baseline skills necessary for effective and efficient use of the programmes' resources and the available training materials. The course design also include the types of training that the participants can conduct, possible funding sources for workshop costs, the information environment to be expected in the eligible countries and an overview of health information on the Internet.

Some of the results of the workshops have been:

- ☞ Royale Tropical Institute, Netherlands including HINARI training in library instruction for various Masters programmes
- ☞ Short Course taught to approximately 80 Masters post-graduate students at the Antwerp Institute of Tropical Medicine (May 2011)
- ☞ Many HINARI courses taught on site at developing country institutions.

Obvious next steps are expanding these workshops for the other Research4Life disciplinary areas and encouraging more awareness of these opportunities.

Conclusion

The world is an interconnected, complex web of understanding and misunderstanding, of individual and group interactions, and of local, national, and international questions waiting to be answered. Science, medicine and technology are fields where there is a long tradition of international exchanges and international studies, and this tradition has only been strengthened in recent years.

The use of evidence and prior research is such a key element of science and technology study and research that it is impossible to imagine a course of study that did not include an expectation for information exploration in the development of research and literature reviews. The frustration of many international students and scholars from lower-income countries at the anticipation of losing access to the global scientific literature upon their return to teach, work or study in their home countries is something for which librarians in developing countries now have an answer.

The next step will be to ensure appropriate networks and collaboration between librarians in different countries so that there is a smooth development and seamless interconnections between the information literacy training received by students and scholars in the different countries where they may study or work. As the Prague Declaration on Information Literacy states:

"Information Literacy encompasses knowledge of one's information concerns and needs, and the ability to identify, locate, evaluate, organize, and effectively create, use, and communicate information to address issues or problems at hand; it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of lifelong learning. Information Literacy, in conjunction with access to essential information and effective use of information and communication technologies, plays a leading role in reducing the inequities within and among countries and peoples..."²

In the meantime, if librarians in higher-income countries can provide any assistance in understanding, managing, and adding knowledge to the questions being researched by international students and scholars, then those librarians are contributing to the global understanding of scientific, medical, and technical issues, which is surely why we have all chosen our professions.

¹ Heister, Carla. Providing Access to Information on a Small Budget. *Issues in Science and Technology Librarianship*. Spring 2006 Supplement (<http://www.istl.org/46-supp/article6.html>, accessed 21 May 2011).

² The Prague Declaration. Towards an Information Literate Society. 2003 (<http://portal.unesco.org/ci/en/files/19636/11228863531PragueDeclaration.pdf/PragueDeclaration.pdf>, accessed 20 May 2011).