



The Global Health Library - Opportunities for mobility

Ian Roberts

World Health Organization
Geneva, Switzerland
Email: robertsi@who.int

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Abstract:

The environment and the context in which current information access models are evolving is shifting rapidly and constantly. Moving away from the constraints of PC based access to the Internet, there are major new and emerging opportunities for accessing digital information in remote locations where landline connectivity is scarce and bandwidth costs prohibitive.

Two important trends are reinforcing dissemination of information: First, the number of players in the field of mobile connectivity is growing. Second, the innovation rate in highly mobile and user friendly technologies and devices is also increasing.

This paper suggests that it is an opportune moment for the Global Health Library to take advantage of this new context — benefiting from growing mobility while also driving health information content through traditional web applications and in print.

The Global Health Library

The Global Health Library¹ (GHL) project led by the World Health Organization² (WHO) aims to provide points of access to reliable health information in paper form as well as a one stop access to similar information in electronic format to those who need it. With the participation of multiple partners in the fields of health, development and information technology, the GHL strives to provide a virtual platform containing assessed multilingual

¹ <http://www.globalhealthlibrary.net>

² <http://www.who.int>

health information resources and offering more visibility to health information produced in developing countries.

Introduction

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Two important trends are reinforcing dissemination of information: First, the number of players in the field of mobile connectivity is growing. Second, the innovation rate in highly mobile and user friendly technologies and devices is also increasing.

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Opportunities for Mobility

The Internet is proving to be the major "location" for access to the latest and most up to date information in multiple fields of science. Similarly, people and their communication expectations as well as social interactions are increasingly tied to the Internet. Meanwhile, lifestyles in a globalized world are characterized by pervasive mobility.

This digital ambience is extremely visible and vibrant within the health information arena. Yet, while internet penetration rates are increasing, many countries in the developing world still lack access to computers and to the world wide web. Large populations — in the poorest areas across the globe — have, at best, scarce and slow Internet access, at worst, no access at all³.

Many of the solutions to health problems of the poor do exist. They are simple solutions, and they are not applied. This happens mainly because it is extremely difficult to access and find relevant information and answers in "Internet remote" locations. The result is huge health inequalities such as high levels of child and maternal mortality, high incidence of infectious diseases and the spread of chronic conditions across the developing world.

With this in mind, products such as solar powered e-readers, multimedia tablets and, to a certain extent, smartphones should be seriously considered as a category of tools well suited to meet the health information needs of the broadest cross-section of people that face Internet access limitations due to their geographical location.

Currently, projects looking at the use of mobile phones as information access devices in developing countries are focusing mainly on short messaging systems as ways to disseminate — as well as gather — health related information. Notably, such small and basic devices are not designed for searching or consulting large works such as publications, technical documents, articles and so on. Another approach being looked into is the feasibility of

³ <http://www.internetworldstats.com/stats.htm>

coupling mobile phones containing or receiving large quantities of health related information to printing devices. This is a solution that could prove successful only in a small number of settings where printing facilities are available and the cost of supplies, such as toner and paper, is low enough to allow frequent printing.

If we look beyond what devices people own now, the e-reader or tablet approach could potentially become the best portable medium for consultation of, and access to, an impressive pool of health information in multiple languages. In addition to retaining the advantages of digital content (search and retrieval, etc.), these devices would allow the combination of three positive factors: sufficient storage space, the possibility of remote mobile connectivity to the internet (for instance, using WiFi connectivity in a large city or 3G when needed), and access to a vast quantity of works (in multiple formats and languages) within an object large enough to be consulted without the need to print. One caveat does remain though: battery life and recharging. In a number of settings dependant on solar power, the digital reader will need to propose an integrated or accessorised solar power charging system. These exist and do not require the level of charging "energy hungry" devices such as laptops usually do.

In major cities, where academia and universities are mostly located, the quality of internet connections is often sufficient to access vast amounts of online medical and health related information (made available, for example, through the WHO website or through public-private partnerships such as HINARI⁴). In parallel, "offline" solutions (such as the eGranery⁵ project) are attempting to alleviate the burden of high Internet access costs by "plugging" a hard disk containing predefined sets of websites onto an institution's local area network. Yet, in reality, compensating for the lack of medical and health information in remote and rural areas remains an enormous challenge.

Reaching out beyond these academic and university circles, an important target audience for the use of mobile digital devices would be the health practitioners located in facilities at district level. As voiced in many different fora and congresses (HIFA2015⁶, Global Health Information Forum⁷, International Congress on Medical Librarianship⁸), it is specifically this remote and inaccessible audience that is in dire need for easy access to basic and essential health information.

Therefore, expanding on the success and positive image of the Blue Trunk Library⁹ (BTL) project, a "digital & mobile" approach would respond to certain weak points and challenges inherent to the dissemination of print materials to remote health centres. For example, the updating of materials would be made possible when connecting to the Internet (when in a large city for instance) and limitation of content due to collection size and shipment costs would no longer be an issue.

⁴ <http://www.who.int/hinari>

⁵ <http://www.widernet.org/digitallibrary>

⁶ <http://www.hifa2015.org>

⁷ <http://www.who.int/healthmetrics>

⁸ <http://www.icml2009.com>

⁹ http://www.who.int/ghl/mobile_libraries/bluetrunk

As is the case for the BTL, the priority materials to include in the mobile devices would comprise practical manuals offering easily accessible solutions to the medical, public health and management problems medical staff located in different health centres may have to face.

In the context of WHO programs and activities, we envision first using the device in synergy with — or parallel to — other projects such as the Open Medical Record System¹⁰ (OpenMRS). This type of project requires use of phone connectivity (which is now possible with the new category of e-reading devices). With, this combination of projects it would be possible to deliver a comprehensive knowledge package as well as an information sharing suite through a unique mobile device — a device more capable and better suited for explicit information dissemination and consultation than the mobile phone category. This combination of "utilities" would contribute to a more integrated approach at the country level for the different programs.

In short, investing in health information dedicated to e-book readers and portable multimedia devices — such as the Kindle, the iPad or the solar powered e-book reader to be released by LG for example — can help create synergies among the advantages and objectives of many existing projects. This, can be achieved by allowing full access to Internet resources when connectivity permits

Content is by no means limited to text only. As mentioned above, with the accelerated development of multimedia capabilities, audio and video materials (such as health training guides) will be increasingly part of health information packages. For instance audio files of irregular heartbeats, images and videos of evolving skin conditions to aid diagnosis can be included in multimedia devices.

The content can also be expanded to textbooks and other materials produced by external health information partners such as the Hesperian Foundation¹¹, Médecins Sans Frontières¹² (MSF) and many others. Furthermore, approaching and engaging important health related publishers is not limited to not-for-profit organizations. Commercial publishers, such as the ones engaged in the HINARI programme, also value — and are attracted by — health information and knowledge dissemination activities in developing countries.

Additionally, WHO's ability to reach users in practical settings in many countries can be attractive to companies that are inventing and producing these devices. Early and high-level contact with the major producers of e-book readers and multimedia tablet devices will be a key component to large-scale impact. Demonstrating low-cost high-return philanthropic opportunities can encourage partnership engagement. The value of expanding brand recognition throughout the world and beyond usual market hubs is also likely to be a powerful motivator.

In conclusion, the Global Health Library International Consultation held in November 2009 in Geneva, Switzerland, provided an expert background and a large number of views on the

¹⁰ <http://www.openmrs.org>

¹¹ <http://www.hesperian.org>

¹² <http://www.msf.org>

options available today for multilingual access to — and dissemination of — health information and knowledge. The overall assessment of the consultation led to the conclusion that the digital format is the most cost-effective approach to information dissemination and that expanding the access to reliable and up-to-date health information for low-income countries, where connectivity is not easily available, should remain the major ambition for health development activities to be carried out in the coming years.

E-readers and multimedia tablets are much more than modern gizmos or gadgets. These devices, in combination with other tools, are an opportunity to save lives and better people's health in hundreds of countries around the globe!