

EMB History to Increase Health Technology Literacy in the General Public for Improved Health World Wide

Ron S. Leder, *Member, IEEE*

Abstract— History provides common access to technology for both technical and non technical persons and for youngsters. Placed in an historical context complex health technology and health care can be more understandable and therefore more accessible to the general public; technical persons can understand past health technology advances to help propel the field. History is a reference for experts disguised as a story that anyone can understand and enjoy. This can be useful and effective at improving self advocate based health care.

Good health is almost always included in people's short list of essential items for a high quality of life.

This research describes a project that proposes to increase access to health care and to health via increasing health technology literacy in the general public. The idea is that people learn the basics of health care technology through its history so that they can increase their ability to use available health care resources.

The main components of this project include;

1. A sustainable history program in The Engineering in Medicine and Biology Society.
2. A global network of Biomedical Engineering and health technology information resources
3. Measurable results and the continuity to build on initial success and attract external resources to add to the EMBS support for this History Committee project.

A sustainable history program in EMBS may require:

- Continuity of history activity primarily via the EMB website, EMB magazine, events, and cooperation with relevant organizational units
- A mechanism by which the membership and interested parties can participate in and use the project.
- An outreach function for the general public and the ability to attract external professional interest.

The IEEE History Committee and History Center have launched the Global History Network (GHN) which is a special Wikipedia style of different media types to document the evolution of electrical and computing technologies. The GHN can also serve as a global forum and a delivery and outreach mechanism for the health technology information in an historical format that will be effective at raising the standard of world health via increased health technology

self-education and literacy world wide. The GHN encompasses all of electrical and computing technology and Biomedical Engineering has its own logical space inside. While history can make complex technology appealing to the general public history also helps engineering experts identify things in the past and present that can lead to a technologically better future. Compiled health technology history can help developers conceive and implement new technology that moves the global state of health to a stronger position.

How to do it? Two main activities are:

1. Commission writing and coordination of a special history article for each of the twenty or so EMBS technology disciplines which include several areas directly related to health care.
2. Create historical genealogies for the main health technologies by which anyone could follow the development of how a technology came into being.

Why will this approach be successful?

1. The success of self help health web sites like Web M.D. <<http://www.webmd.com>> demonstrates that there is desire to use ones own resources to find health solutions and to improve health.
2. There is a global need for more stable health care and there does not seem to be a similar solution on the horizon. In 2005 the World Health Organization launched a hand hygiene program. The CDC states "It is well-documented that the most important measure for preventing the spread of pathogens is effective hand washing."

Improving access to health care is not problem for only the developing world. The general public in the developed world is also in need of health care help. This project can draw on the momentum of the IEEE Humanitarian Technology Challenge which tries to use engineering and technology know-how to make the underdeveloped world a safer, better, and healthier place. This history-to-health project can become part of the personal solution for improved global health

REFERENCES

- [1] IEEE Global History Network <<http://www.ieeeghn.org>>
- [2] IEEE Humanitarian Technology Challenge <<http://www.ieee.org/web/volunteers/tab/htc/index.html>>.
- [3] Web MD <http://www.webmd.com>
- [4] World Health Organization; Hand Hygiene guidelines Oct, 2005 <http://whqlibdoc.who.int/hq/2005/WHO_EIP_SPO_QP_S_05.2.pdf>

M Manuscript received April 23, 2009. This work was supported in part by the IEEE History Center and the IEEE Engineering in Medicine and biology Society History Committee.

R. S. Leder. is with the Universidad Nacional Autonoma de Mexico, Mexico, DF 04510, Mexico (206 984 2509; e-mail: rleder@ieee.org)