DIGITAL DEVELOPMENT DEBATES

"Software that 'makes you healthy' – custom-tailored and inexpensive"

Interview with Alvin Marcelo

Alvin Marcelo studied to be a general and trauma surgeon and currently heads the University of the Philippines Manila National Telehealth Center. He is the manager of the International Open Source Network for ASEAN+3, a top research centre for free and/or open source software founded by the UNDP in cooperation with GIZ (formerly InWEnt). He also heads the Community Health Information Tracking System - CHITS.

"As a doctor, I found the freedom of FOSS was exactly the type of liberation we would like to give every single person here on earth." (A. Marcelo)

How can open source software help improve the health of people who live in isolated areas?

Alvin Marcelo: FOSS reduces the costs of health information systems. Health information systems (HIS) are very complex. They consist of hardware, software, networks, people, guidelines and data. As a rule of thumb, if software is made freely available, this lowers the cost of an HIS and as such the cost of care.

We still have to remind people that health information systems cost money, but their advantages far outweigh investment. These include increasing efficiency, saving time, etc. In developing countries this translates into no vaccine shortages or expired medicines.

What particular health needs do people in rural areas of the Philippines, Vietnam and other South-east Asian countries have?

The countries of Southeast Asia suffer from a lack of expertise. Telemedicine is one of the key things that needs to be introduced in Southeast Asia as soon as possible. Telemedicine allows the citizens of ASEAN countries to consult experts without having to pay for expensive travel.

Could you give us a "best practice example" of how open source software can help medical personnel and patients in isolated areas?

On the Philippines we use the PlaySMS and Roundcube SMS tools (see box) to process referrals from doctors in villages. They only need a mobile phone and we can connect them to specialists in Manila. This would not exactly be cheap if we had to play for all the software we need to provide this service. But the software was free and we were able to apply it quickly and start helping doctors in isolated rural regions.

What is the advantage of open source software compared to conventional software?

In general even FOSS has to be adapted to the needs of a specific application, which can be just as expensive as a proprietary solution. Its true value lies in how quickly it can be put into use, since the software does not need to be completely redeveloped, and in cost effectiveness, since the basic software is free. Another advantage is that you truly own the software once it has been reprogrammed to suit your needs. It is difficult to name a price for ownership rights (though technically it is not really ownership, but rather unlimited right of use). This is a separate field of research.

What has your greatest success been thus far with OSS in the health sector?

Our greatest success has been having software we can use to introduce our nursing and medical students to health information technology. With FOSS they can use their own electronic treatment data! This is not the case in all developing countries. Now we can theoretically discuss EMRs (see box) with our students AND let them experiment in the laboratory independently.

What is the goal of the Open Source Software in Healthcare Working Group at the 1st Interdisciplinary Alumni Conference in Southeast Asia?

We want to create a trust network of experts active in fields like health care, IT, business, journalism, etc. and motivate them to put their heads together to develop a plan for using FOSS for health solutions in the ASEAN Region. The common goal here is to offer first-class health care to the people who live in the most isolated regions or have been marginalised in their countries.

PlaySMS:
playSMS is a flexible web-based mobile portal system that can be designed for diverse functions, such as an SMS gateway, personal messaging system or as an instrument for corporate and group communication.

Roundcube:
Roundcube Webmail is a browser-based multilingual internet message access protocol (IMAP) client with desk-top like user interface that is easy to configure and offers a wide array of functions, such as Multipurpose Internet Mail Extensions (MIME) support, an address book, a file system and a search and spell-check function. It uses PHP and JavaScript.

EMR:
Electronic medical record: an electronic medical record is generally described as a computerised record of treatment created by an organisation that offers health care services, such as a hospital or physician's surgery.

Mirjam Leuze conducted the interview in June 2010