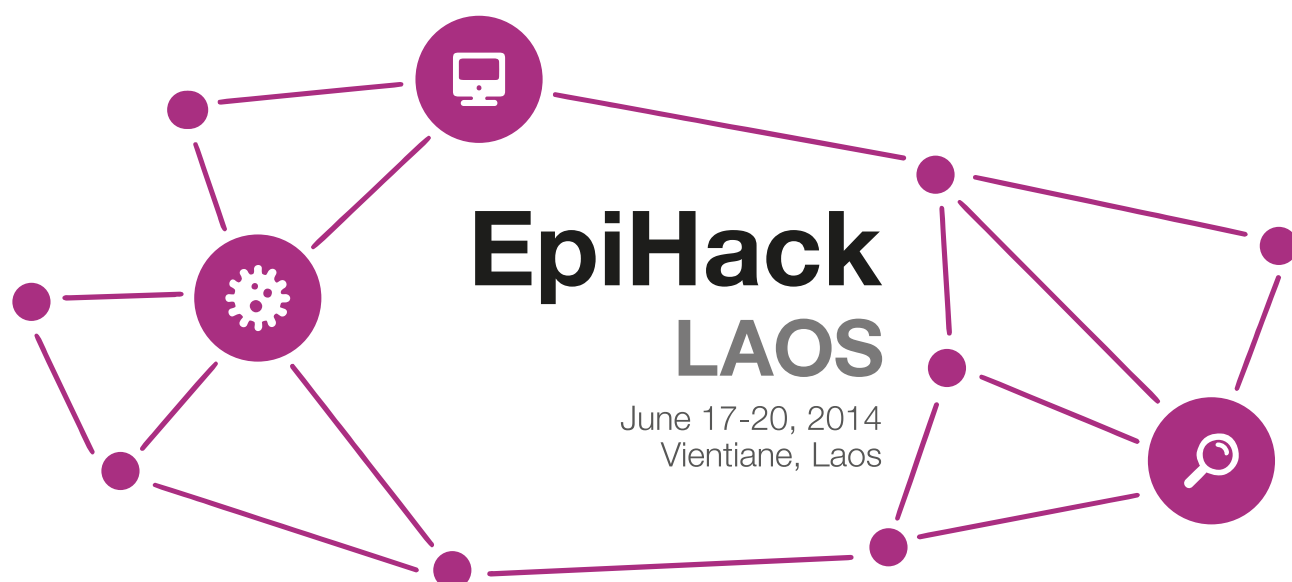


# RESOURCE KIT



Organisers:



**InSTEDD** **opendream**  
Innovative Support to Emergencies  
Diseases and Disasters



**skoll global  
threats fund**

# Welcome to EpiHack Laos

It is with great excitement that we, the organisers, look forward to connect this group of enthusiastic technology and health experts to hack for better public health in Laos!

Asia is a dynamic hotspot for technological progress and also home to widespread pandemics such as Bird Flu or Swine Flu. The upcoming hack-a-thon is the first of its kind in Laos and aims to bridge public health professionals and technology experts to work together to develop a digital disease detection tool over the course of four days.

EpiHack Laos provides an intensive environment to explore, develop, integrate and improve technological solutions on the quest to detect and minimize the impact or retreat of expanding diseases, which could cause borderless outbreaks. This hack-a-thon will address the threat of dengue fever in Laos and will focus on developing a tool to help the public stay informed and provide prevention tips to prevent the spread of dengue.

The four-day EpiHack will offer worthwhile insights for developers and public health experts to understand how technology can empower citizens and institutions and we are confident that this joint effort will mark an important milestone in forming a firm foundation for talented technology and public health experts to contribute to a healthier Laos!

See you soon!



# Hack-a-thon

## crash course

### What is a hack-a-thon?

Hack-a-thons fuse the elements of hacking (in legal software development, of course) and marathon-like events (intensive, in a short period of time) to address specific issues. The hack-a-thon concept has spread like wildfire across the globe and its attractiveness is embedded in the intense, creative, fun and collaborative nature that unites software developers, designers, interface designers and other technology experts with specialists on the issues identified.

### Previous EpiHacks

EpiHack hack-a-thons have so-far brought together over 116 individuals (and counting!) from all corners of the world — Asia, North America, Europe, Africa, Latin America and beyond — to Southeast Asia. We welcome experts from diverse backgrounds to work across sectors fusing the fields of animal, human and environmental health with technology and digital solutions. EpiHack is a non-conventional event that requires all participants to collaborate, co-create, unfold and explore ideas and be action-orientated. At EpiHack each participant works closely with the team and holds his or her own unique, special role.

The first EpiHack was held in August 2013 in Phnom Penh, Cambodia. The four-day hack-a-thon explored, improved and developed technological prototypes for five on-going health projects in Thailand, Myanmar, Laos and Cambodia. The second EpiHack, held in March 2014 in Chiang Mai, Thailand, invited human and animal professionals and leading developers to jointly prototype tools for a participatory One Health platform.

### EpiHack Laos

EpiHack in Laos is the third EpiHack in Southeast Asia with the main objective to develop a participatory reporting tool with prevention tips to help the public stay informed and detect dengue fever outbreaks faster! EpiHack Laos is co-organised by the Ministry of Health Laos, Mekong Basin Disease Surveillance, InSTEDD, Opendream, and Skoll Global Threats Fund, and invites government officials, health experts and developers to spend four days collectively brainstorming, exploring and prototyping digital tools to prevent the spread of dengue for a healthier Laos!



### **WHAT MOTIVATED YOU TO PARTICIPATE IN EPIHACK?**

“The interdisciplinary problem solving, intercultural knowledge exchange, and networking”

Chanmann Lim, InSTEDD



**WHAT ARE YOUR TOP PERSONAL TAKE-AWAYS FROM EPIHACK?**

“Developed a hotline in my local language which should be launched immediately”

Dr. Jas Mantero, Italian Health  
International cooperation



# Dengue fever

## Fast facts

Dengue in Laos
Dengue is a viral disease and it is transmitted through the bite of <i>Aedes aegypti</i> mosquito. This mosquito lives very close to people in built-up areas and thrives in stagnant water.
A dengue epidemic in Laos has infected nearly 50 000, killing 92, according to a report released in September 2013 by the Ministry of Public Health.
The dengue outbreak is the worst ever recorded in Laos, with cases reported in all 17 provinces. Children under age of 15 years have accounted for 70 % of the 92 deaths. The rise of cases is 11 times higher than during the same period in 2012.
The World Health Organization (WHO) estimates that without immediate and effective action Laos could have 61 000 – 120 000 dengue cases in 2013.
All possible sectors have been mobilized in a broad campaign including fumigation of potential sources, emptying containers of liquids in workplaces, and house-by-house efforts.
Laos is one of the hardest hit countries in Southeast Asia by dengue fever, followed by Cambodia with 40 deaths and Malaysia with 35 deaths. In the Philippines there were 96 000 cases and 372 reported deaths.

# Digital health tools

Explore existing digital health applications and projects



Verboice

[www.verboice.instedd.org](http://www.verboice.instedd.org)

Verboice is a free and open-source tool that makes it easy for anyone to create and run projects that interact via voice, allowing your users to listen and record messages in their own language and dialect or answer questions with a phone keypad. Verboice projects can start small and scale up, making it possible to improve lives even in communities previously closed off by literacy and technological barriers.



DoctorMe

[www.doctorme.in.th](http://www.doctorme.in.th)

DoctorMe, available for free on iOS and Android, allows users to learn how to behave in the event of illness emergency. The application teaches about the main symptoms of different illnesses and includes a database with over 1,000 hospitals, which allow users to search for a nearby hospital and get the route in case of emergency. It also adds information on medical components and Thai herbs.



GeoChat

[www.geochat.instedd.org](http://www.geochat.instedd.org)

GeoChat emerged from a simple concept - can I send an SMS message and see it on a map? From there the concept has evolved, and GeoChat has become a project to build a collaboration platform for the lowest common denominator communication tools, considering as highest priorities the needs of workers of humanitarian aid, international health and disaster response.



Reporting Wheel

[www.reportingwheel.instedd.org](http://www.reportingwheel.instedd.org)

The Reporting Wheel is a non-electronic device that simplifies data reporting for the most remote workers, including those with literacy challenges. It consists of small cardboard wheels that can “encode” a series of values or pictograms to report into a number that can be sent in via an IVR, USSD or SMS, and a backend service that collects the reports and assists an administrator in defining a wheel and configuring the interactive voice responses. Because the wheels are so simple to build and are intuitive to use, health workers can train each other very rapidly and accurately on how to use them, which in large-scale deployments can translate to large costs savings in training and support.

# Organisers



## **Ministry of Health in Laos PDR**

[www.moh.gov.la](http://www.moh.gov.la)

A key objective of the Lao People's Democratic Republic is to “strengthen the ability of the health care system in providing access to available appropriate, affordable and good quality essential health services that are responsive to people's needs and expectations, especially for those who are underserved or unserved.



## **Mekong Basin Disease Surveillance (MBDS)**

[www.moh.gov.la](http://www.moh.gov.la)

The Mekong Basin Disease Surveillance (MBDS) consortium comprises of six participating countries: Cambodia, China (Yunnan and Guangxi Provinces), Lao PDR, Myanmar, Thailand and Vietnam and a growing number of development partners who together seek to reduce morbidity and mortality caused by outbreak-prone diseases in the sub-region. MBDS countries have been working together since 2001 to progressively build local capacity, share information, and cooperate in outbreak response and pandemic influenza preparedness. MBDS has built its work on the core values of mutual trust, transparency and cooperation. These core values have evolved over time to include greater attention to accountability, innovation, and learning based on incorporation of lessons from past experiences.





## **InSTEDD** **[www.instedd.org](http://www.instedd.org)**

InSTEDD's mission is to improve global health, safety and sustainable development through capacity building, tech for social good, grassroots leadership and impact evaluation. This is accomplished through capacity building within communities to foster a local culture of innovation, creating collaborative technologies for social good and collaborating with end users through bottom up designs and development process as well as ensuring usefulness and impact through research and evaluation.

InSTEDD works side-by-side with stakeholders in the developing world to design software tools to be resilient and effective in any environment, language, at any literacy level and with any mobile phone. InSTEDD believes that with new, free and open-source technologies humanitarian help and public health organizations around the world can be enhanced and act more effectively. We aim to reduce mortality, accelerate recovery and help prepare communities to face the unexpected with confidence in their own resilience.

InSTEDD works with governments, universities, corporations, international health organizations, humanitarian NGO's and local communities around the world and operates through its offices in USA, Cambodia and Argentina to collaboratively identify requirements for enhanced information flow, better cross-sector collaboration and more effective collective action.



## **Opendream** **[www.opendream.co.th](http://www.opendream.co.th)**

Opendream is a Thai social enterprise on the quest to deliver information that shakes up the world!

Opendream, founded in 2008, is made up of a young and dynamic team of designers and developers with backgrounds varying from user experience design to software development and web and mobile application development. Opendream's mission is reinforced each day by the values of each staff member and our dedication to social impact, which has brought us a diverse set of clients.

Opendream specialises in information technology systems, design and design conversion, and programming, and applies to products both on the web and on mobile devices. As a leading technologist in Southeast Asia, Opendream undertakes projects that stimulate societal and economic impact and engage in the development of free software and open standards. We work closely with networks such as Creative Commons and other open sourced based 'unconferences', including BAR Camp, ReadCamp, LibCamp, CC Salon and the Open Data Initiative. Opendream advocates for greater transparency and accessible open data for the public, which we have promoted through partnerships with the Mozilla Foundation.



skollglobal  
threatsfund

**Skoll Global Threats Fund**  
**[www.skollglobalthreats.org](http://www.skollglobalthreats.org)**

Skoll Global Threats Fund's mission is to confront global threats imperilling humanity by seeking solutions, strengthening alliances and spurring action!

Founded by Jeff Skoll in 2009 to tackle the world's most pressing issues, the Skoll Global Threats Fund has the mandate to drive large-scale global change in the five main areas of: climate change, pandemics, water security, nuclear proliferation and Middle East Conflict. These global threats have the potential to kill or debilitate large numbers of people or cause significant economic or social dislocation or paralysis throughout the world. Skoll Global Threats Fund seeks to address these complex issues through the core practices of communication, governance, engagement, information and innovation.

Skoll Global Threats Fund works proactively to find, initiate, or co-create breakthrough ideas and/or activities that will have large-scale impact either directly or indirectly on crosscutting issues.

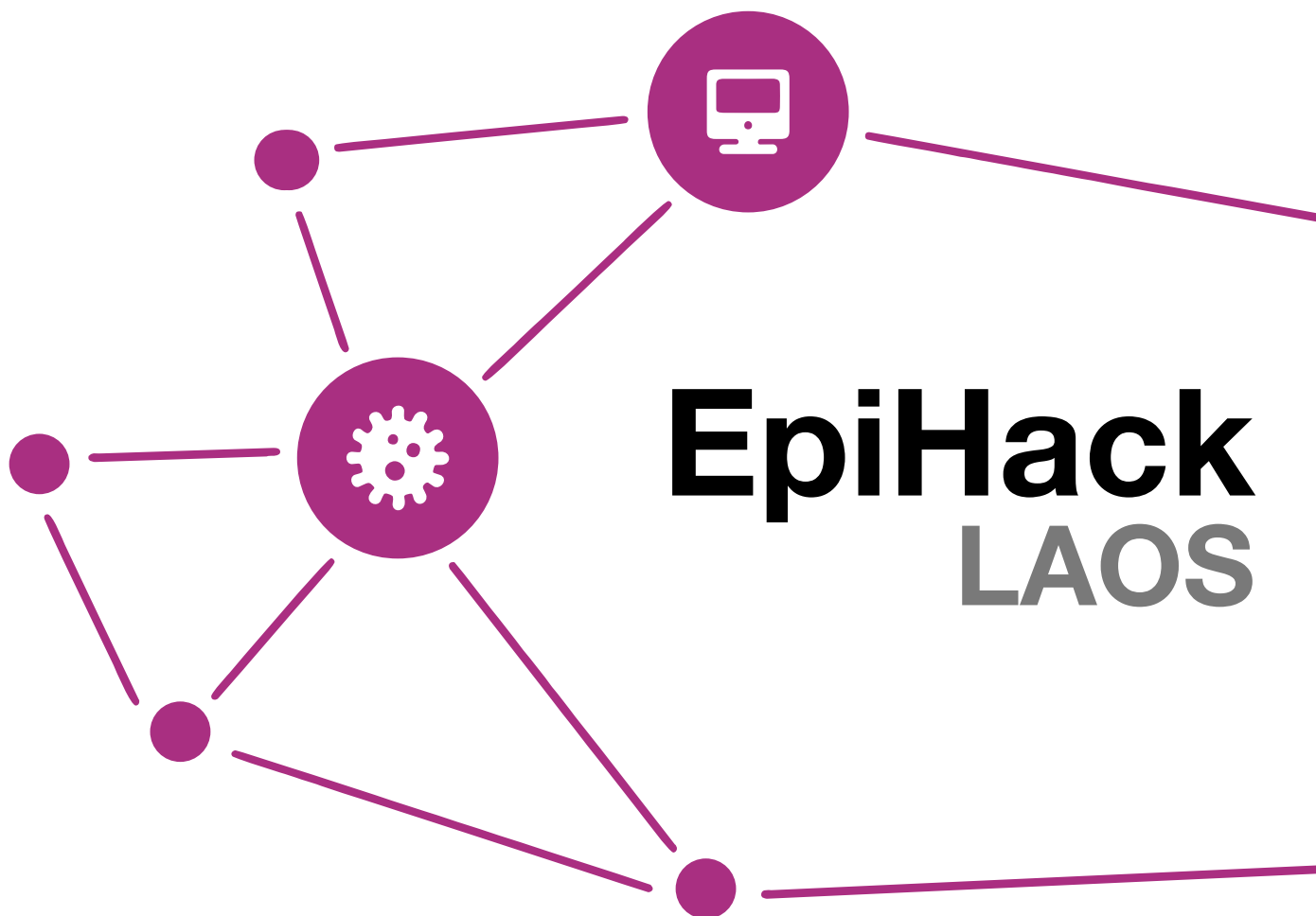
# Social media

## Sharing is caring!

Share your experiences during Epihack by using the hashtag **#epihack**

Please actively post pictures, comments, ideas, quotes (anything that inspires you!) from EpiHack as we will create a collaborative 'timeline' from the EpiHack hack-a-thon!

Like the hack-a-thon at [facebook.com/epihack](https://facebook.com/epihack)



# EpiHack

## LAOS

Vientiane, Laos  
June 17-20, 2014

