



# Voice-based mobile services for social development



ICT services will play a major role in social and economic progress in developing countries. Mobile telephony has shown a massive uptake in the developing world, and this opens up great opportunities. On the other hand, the World Wide Web with its immense amount of useful information is still inaccessible for many people in developing countries. Communication in the Sahel region in West Africa, for example, is voice-based – many people can't read or write – and in many different local languages.

The VOICES project removes some of the current access barriers to the Web and its content, related to communication channels, access infrastructure, literacy, and languages. VOICES does so in a novel way by coupling Web facilities to mobile telephony and community radio, and gluing all this together by voice services. VOICES thus supports rural villages and remote communities in creating "spoken Web content" and sharing the created information across big distances. This represents a major step forward in realizing the potential of mobile ICT services for social and economic development, particularly in the African context.

## Voice web mobile service products:

1. An Open Source platform plus toolbox for the development of voice-based services that provide the bridge between the Web, mobile telephony, and mass communication media such as local community radio (<http://emerginov.ow2.org>).
2. Speech technologies tool support and methodology for under-researched and under-resourced languages.
3. And: we offer a wide range of open capacity-building and educational facilities for local and international partners including a mobile training lab.

## Voice web benefits and impacts

Our Voice web innovations have been field tested and deployed in various African countries, and have proved to deliver important impacts.

Voice-based agro-market knowledge sharing broadcasts enabled farmer Zakary Diarra (who lives in a remote region in Mali) to increase his revenues tenfold within one year.

Detecting the outbreak of infectious diseases now takes only 20 minutes instead of four days (Senegal).

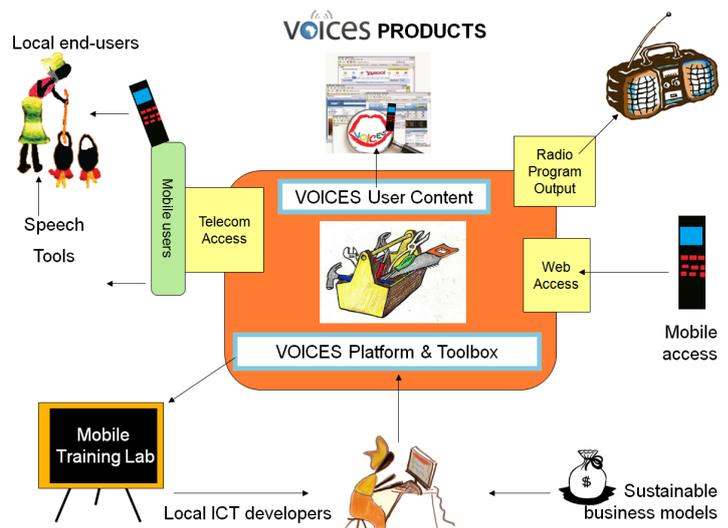
Our Voice web innovations receive wide international recognition, for example the 250,000 US \$ award for winning the News Innovation Contest (2011) of the International Press Institute.

Al Jazeera adopted our innovations and used it to monitor the presidential elections in Ghana (2012) and Kenya (2013) from remote villages and regions. (For this, Al Jazeera on its turn won an international online media award for best use of crowd sourcing or citizen journalism.)

Many international media cover our work, such as the New Scientist: "Voice-based web access helps illiterate get online" (April 2013).



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## The "Web of VOICES"



Zakary Diarra – farmer, beekeeper and honey producer from the village Bokuy-Mankoina in Mali:

**"I now sell 200 liters of honey. With RadioMarché, after the broadcast on the radio, I was able to sell all of my honey."  
"I am now able to pay schooling for my four children and I could even buy a cart and a donkey, last year."**



Naomi Dembelé, producer of shea butter from the village Sira, Mali:

**"Thanks to this system we, the women who produce shea butter, are known throughout the country, and whenever there is a demand for shea nuts people will come to me. I am proud that I am known across the country."**



Adama Tessougué, journalist of Radio Sikidolo in Konobougou:

**"People from 39 communes listen to our programs. We trained correspondents who are able to phone in directly from their remote villages to leave (radio) reports. Now that the Foroba Blon service is here, I can tell you: if there's anything we would have wished for, it's really Foroba Blon."**



Alou Dolo, developer at the ICT enterprise Yeleman in Bamako, about the VOICES service Tabale:

**"When is the system free and available for everybody? I can see possibilities not only for organizations in rural areas, but also for organizations in urban settings."**



Sir Tim Berners-Lee, inventor of the World Wide Web:

**"Our success will be measured by how well we foster the creativity of our children. Whether future scientists have the tools to cure diseases. Whether people, in developed and developing economies alike, can distinguish reliable information from propaganda or commercial chaff. Whether the next generation will build systems that support democracy and accountable debate. I hope that you will join this global effort to advance the Web to empower people."**

Design: Marian Hamilton - [www.hamiltondesign.nl](http://www.hamiltondesign.nl)  
Photos: Bruno van Moerkerken & Anna Bon

**New Scientist, 25 April 2013:**  
**Voice-based web access helps illiterate get online. A new internet system is giving a voice to people in Africa who cannot read or write or who lack a computer.**

**International Press Institute  
IPI News Innovation Contest  
[www.ipinews.contest.org](http://www.ipinews.contest.org)>News**

**Foroba Blon:  
Shaping a New Way to  
Inform Communities  
(Mali, 19 July 2012)**

### Information

[www.mvoices.eu](http://www.mvoices.eu)  
[www.webfoundation.org](http://www.webfoundation.org)  
[www.w4ra.few.vu.nl](http://www.w4ra.few.vu.nl)  
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