

# Chapter 5

## Viral Education via Mobile Phone: Virtual International Networks and Ebola Prevention in Sierra Leone

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### ABSTRACT

*This chapter documents a strategy for the development and deployment of educational content on Ebola prevention and treatment targeted at low-literate learners speaking diverse languages. During the outbreak of Ebola in Sierra Leone, Njala University partnered with Scientific Animations Without Borders (SAWBO) at the University of Illinois Urbana-Champaign to create educational animations on Ebola. Drawing on an international network of collaborators, these animations were then placed into multiple languages for Sierra Leone. Njala University in turn acted as the central hub for engaging local partner groups to deploy this content throughout Sierra Leone. This chapter describes the development process, which occurred during the outbreaks and the ICT tools now available to the global health community. The educational animations created during the 2014 Ebola outbreak are now available in multiple languages for Sierra Leone, as well as other West African countries, along with a highly scalable deployment pathway that can be rapidly operationalized during future outbreaks or modeled for other outbreak or health crisis situations.*

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## **INTRODUCTION**

The role of mobile phones during the Ebola outbreak continues to be documented. For instance, Eric King, an Innovation Specialist at the United States Agency for International Development (USAID), stated that the mobile phone played a critical role in the recent aid efforts in Ebola-ravaged West Africa (Wagner, 2015). Mobile phone technology is one of the fastest growing development tools in Africa today. In the health sector, mHealth uses mobile phones to address healthcare needs (WHO 2011; World Bank 2012). One of the major challenges facing mHealth applications and their potential impact on healthcare is ensuring the content and quality of the health information are culturally appropriate. A World Bank report (2012) on mHealth identifies two major obstacles to the use of mobile phones in healthcare: 1) lack of trust in the information provided and 2) lack of information provided in local languages and cultures. When dealing with a health crisis such as Ebola, trust and communication are essential to successful treatment and stopping the spread of the epidemic. This chapter will provide lessons on how the international community can best use technology to work efficiently and effectively with local partners in a health crisis situation. Additionally, this chapter will examine one collaborative mHealth approach to combatting Ebola through the use of educational animated videos in local languages in Sierra Leone during the 2014 outbreak.

For a long time, the radio, television, film, and community meetings have historically been used as spaces and means of communicating needed behavior change in healthcare. Presently, technology has improved and through social media a variety of Internet based communications, tools and aids referred to as participative Internet have taken the center stage in the promotion of behavior change in health care (Korda & Itani, 2013; Jones & Fox, 2009). The advantages of this online communication are that they offer easy and cost-effective access to large numbers of people across geographic distances. Specifically, such technologies that are interactive and allow collaborative content sharing are called Web 2.0 social media and they are found on platforms such as Facebook, MySpace, Youtube, Twitter, wikis, blogs, and two-way mobile messaging platforms that connect people through cell phones such as WhatsApp (Korda & Itani, 2013). The assumption behind these tools is that the users are literate and can navigate the various platforms on their own. Scientific Animations Without Borders (SAWBO) leverages the logics of these technological tools while focusing on low-literate users as consumers and creators of knowledge. To achieve inclusivity, the information is translated into accessible languages and animated characters that perform the action explaining the content of what has to be learned.

## **BACKGROUND ON THE SAWBO PROJECT**

SAWBO is a Michigan State University based program (formerly based at University of Illinois Urbana-Champaign from 2011 to 2016) that creates and distributes educational animated videos on topics of agriculture, health, and women's empowerment. The videos are designed to be accessible to all people regardless of literacy and linguistic backgrounds throughout the world. The animated videos are developed using international academic collaborators to ensure the videos are scientifically accurate and culturally relevant. Experts on specific topics such as infectious disease assist in the development of each video's script and storyboard, which is then transformed into a two to five minute 2D or 3D animation. The SAWBO team then recruits volunteer native speakers to translate the script and provide the audio

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