

# Case Study: Audiopedia

This case study is part of a series that showcases successful usage of open-source software with a development objective in Uganda and around the world. It was prepared by the Response Innovation Lab in partnership with URIDU, as a part of the Open Source for Equality initiative (OSEQ) in Uganda.



## What is Audiopedia?

Audiopedia is an open-source platform developed by URIDU that provides expert audio content targeting marginalized women and girls on topics such as health, nutrition, childcare, and family planning.

Women are seen as the key to sustainable development. However, millions of women and girls remain illiterate and many lack access to basic infrastructure, which limits their access to information. Audiopedia aims to address this barrier by providing practical information and health education in formats and languages that are accessible to all women.

## How does it work?

Audiopedia combines accessible hardware and software for **narrowcasting** information to target groups. The [audiopedia.org](http://audiopedia.org) platform provides a searchable database of categorized transcripts and audio files in various international and local languages. It is designed to be used on a range of devices that operate in settings with varying levels of connectivity and infrastructure:

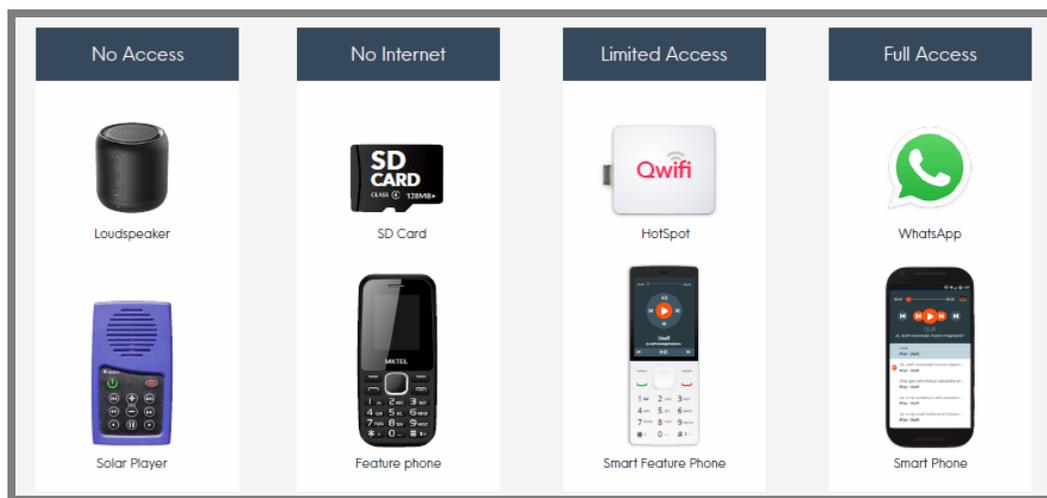
1. **Solar-powered audio players:** These can be used in remote areas with no phone or internet signal and no electricity.
2. **SD cards:** Audio files are loaded onto an SD card to be played on simple feature phones, commonly used among marginalized women, without the need for an internet signal.

URIDU is a German non-profit organization co-founded in 2016 by Marcel and Felicitas Heyne that aims to empower women and girls in developing countries by improving access to free audio information.

Narrowcasting refers to the dissemination of information to a select, defined group rather than to the broader public at-large.

3. **Qwifi:** Audio files can be downloaded on smart phones and smart feature phones using [Qwifi technology](#), which acts like a WiFi router with internal storage to stream Audiopedia content to devices within a 1,100m range with no internet connection.
4. **Smart (feature) phones:** With full connectivity, audio files can be downloaded and played through the [Audiopedia.org](#) or on the [Audiopedia Web App](#), and are easily shareable through WhatsApp.

Community-based organizations (CBOs) and non-governmental organizations (NGOs) are encouraged to download, play, and share the audio files as part of the community outreach and education activities.



## How was it developed?

Audiopedia runs on [MediaWiki](#), the customizable, open-source software that powers Wikipedia. This software was chosen so that the platform would be **scalable**, **robust**, and **collaborative**. It allows Audiopedia to collect, store, and share information in a similar open, searchable format as Wikipedia, but with two key differences: the content is specific to one target audience (women and girls) and it is combined with an interface that makes content accessible.

The platform uses a [Creative Commons Attribution-ShareAlike Licence](#), the same used by Wikipedia. This allows users to copy, redistribute, and modify the work, as long as the new work gives appropriate **credit**, indicates any **changes** made, and uses the same **open licence**. In this way, local stakeholders can use the digital audio content through the existing Audiopedia platform or through their own customized application that best meet users' needs, while giving credit to Audiopedia. An example is the [Pro Mujer](#) platform that makes the Spanish-language health information easily available to users in Latin America.

The content is developed through a quality-controlled process to ensure it is reliable and user centric. The initial content drew on existing, trustworthy sources of health information licensed under open copyright. New content was developed with the support of experts. Information is broken down into short, simple transcripts. The transcripts are translated into local languages by crowd sourcing volunteer translators, which are then reviewed by local organizations and recorded into 2- to 3-minute audio files by native speakers. These are tested in the field and then adjusted as necessary.

## Why make it open source?

Audiopedia was conceived as a means to improve women's access to information on a large scale. To be meaningful, accessible, and impactful, URIDU opted to make the platform open source.

**"If we want to scale and disrupt, it needs the openness."**

– Marcel Heyne, Co-Founder of URIDU

The open-source model has a number of advantages:

1. It builds on an established, tested platform (MediaWiki) with existing tools, extensions, and policies that can be easily copied to avoid reinventing the wheel.
2. It is scalable so that more content, users, and interfaces can be added over time.
3. The platform and its information can be accessed free of charge by the end user.
4. It provides easy access to solutions without vendor lock-in, where the vendor can raise fees, but the consumer is unable to easily switch to another solution.
5. It gives greater control to local actors who will use or modify the platform.
6. It can piggyback on existing structures, such as the Wikipedia chapters and user groups that can help develop content.

URIDU does not charge for the use of the platform or content. They operate on a hybrid funding model that consists of a) grants from donors; b) donations by individuals and business (monetary and in-kind); and c) revenue generated from the "three Cs":

**Consulting**

**Coaching**

**Customization**

URIDU provides these services to organizations and agencies to, for example, help create a digital transformation, carry out workshops, or develop customized content.

## What lessons were learned?

Audiopedia has been growing since its initial development and pilot phase in 2015. Four lessons learned in this time are:

1. **Shifting from projects to platforms:** The traditional project cycle leads to short-term visioning and unsustainable financing. URIDU shifted their focus to a platform-based model, which could be scaled up and sustained over time.

2. **Start small:** Financing can be a limitation to get good ideas off the ground. Work with local organizations to better understand the needs of the end users. Test the idea by piloting a small project for an NGO and scale it up from there.
3. **Proactive outreach will help to grow:** URIDU has relied primarily on passive outreach by putting information on the website and creating a network of NGOs. More proactive outreach and partnerships with organizations would allow for more growth and could facilitate the translation of content in local languages.
4. **Mobile-friendly applications are most scalable:** The solar-powered audio players are effective at reaching women in settings with little infrastructure but require more investment to scale up. The mobile-friendly applications are most efficient to have a wide reach and to share through WhatsApp. Though women have more limited access to smart feature phones, the number is growing. If one woman in a community has access to a device, they can play audio to other women in a group.

## How is Audiopedia contributing to gender equality?

Audiopedia is designated as a Digital Public Good. From its inception it was designed to address gender inequality and to empower women and girls, which is the Sustainable Development Goal 5.

In 2021, an average of 15,000 women per month were directly accessing the [Audiopedia.io](https://audiopedia.io) platform. It has been used with partner organizations in Tanzania, Pakistan, Uganda, Nicaragua, Central Africa, Afghanistan and more. The accessibility of information on local devices transforms traditional

Digital public goods (DPG) refer to open-source software, open data, open AI models, open standards and open content that help attain the Sustainable Development Goals (SDGs)



community outreach efforts, putting the control into women's hands. Women can access information when they want, where they want, and with whom they want. This allows them to listen to sensitive information in a safe space without the presence of men. In Pakistan, "listening groups" were formed where one woman with access to a device would play audio files to a small group of women. They could listen to topics like menstrual health and then discuss

safely amongst themselves.

Open Source for Equality (OSEQ) promotes dialogue on how open-source digital innovations can contribute to the SDGs and encourages increased collaborations between Ugandan digital solution-developers and development/humanitarian practitioners. OSEQ is supported by the German Ministry for Economic Cooperation and Development (BMZ) and the European Commission (EC).

#SmartDevelopmentHack #OSEQ

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