

1. Introduction

—**I'm moving up North.**

—Up there, well I'll be.
Ain't you got your business?
Ain't you into sellin' pigs?

—**Was. Not no more. Don't pay.**
Last week,
didn't make enough for food.
And week before last,
all we ate was herbs.
People're starving, reverend.

Juan Rulfo

—**Me voy pal Norte.**

—¿Y allá pos pa que?

¿**No tienes aquí tu negocio?**

¿No estás metido en la merca de puercos?

—**Estaba. Ora ya no. No deja.**

La semana pasada

no conseguimos pa comer

y en la antepasada

comimos puros quelites.

Hay hambre, padre.

[Juan Rulfo. *El llano en llamas*]

The eRadio project proposes to be an effective aid to increase interaction and reduce alienation among the members of dispersed communities by using a holistic approach to participatory and interactive web radio-production, with *ad hoc* methodology and *ad hoc* electronic tools.

Through eRadio individuals can contribute to a participatory process of community self-discovery, identification, and assimilation by voicing their concerns and views as well as by expressing aesthetic and cultural ways of rejoicing.

eRadio participators can trigger processes that may lead to the sustainability and empowerment of different segments of the dispersed community, and of the whole, by airing issues of collective importance and thus moving individuals, groups, and institutions to reflection and cooperation.

Volunteers become communicators that get others to tell anecdotes or discuss issues as they audio-record them. Then they creatively edit and transmit the finished audio pieces via the web and, if local conditions permit it, they radio broadcast it.

Interactive transmission from different sites is done by two or more segments of the dispersed community.

The project includes development of a hardware and software package that supports simple task-based production of digital audio files. The hardware is a simple computer called "VoxPopBox" which can be connected to a portable digital recorder in order to download audio clips that have been recorded in the field. The software is divided into four task areas which guide the user through gathering audio, producing a piece, publishing their work, and listening to other audio publications. Each box is connected to other boxes via the Internet.

This thesis describes the pilot implementation of the eRadio project with the Tulcingo community, which is a dispersed transnational community with a hometown in Mexico and about half of its population in New York City.

After two nine-day workshops, we produced and transmitted two radio programs, one from the town of Tulcingo and the other from the city of New York. As a result the Tulcingo community is interested in a long-term eRadio implementation. If done, Tulcingo would be an eRadio seed community from which other communities can bloom.

1.1 Problem

There is little interaction and a growing alienation between members of the dispersed community whose population is mostly concentrated in two distant locations, which are Tulcingo, Mexico and New York City.

1.2 Hypothesis

Given an appropriate ‘technomethodology,’ the use of electronic tools that facilitate participative radio production can be a significant aid to increase interaction and reduce alienation among a diaspora community.

1.3 Definition of terms

This section introduces the terminology used in the thesis.

Broadcast is radio transmitting.

Clip, Gather, Produce, (Audio) Piece, and Publish are terms that refer to audio.

→ **Clip** is an audio recording.

→ **Gather** is obtaining clips.

→ **Produce** is editing clips to achieve an audio piece.

→ **Piece** or Audio Piece is the creative modification, ornamentation, or montage of audio recordings.

→ **Publish** is exporting an AUP file to MP3 and placing it on the file system to make it accessible to certain users within the system, and once the MP3 is approved, it is posted on the web page for access to all Internet users.

Communicator is a person who is involved in journalistic, radio production, and web-casting and broadcasting tasks.

Dispersed community, also called diaspora or transnational community, is a community whose population is mostly concentrated in two or more distant locations due to considerable migration of its members.

Empower and **empowerment** refer to an increase in self-sufficiency capacity and in satisfaction.

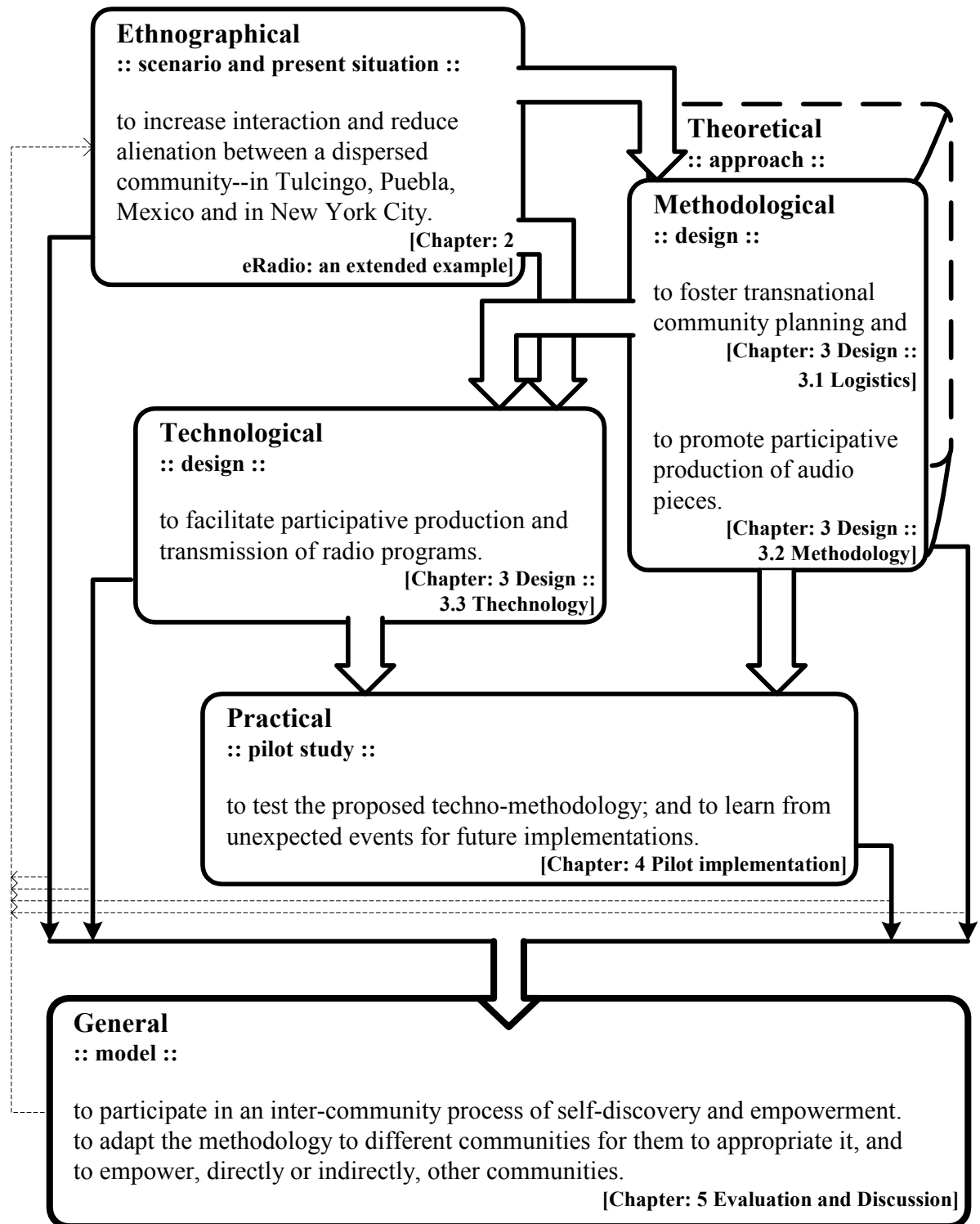
Project may mean: (1) eRadio project, that is, the project as a whole; (2) a software label for a file that is being or has been work on, that is, an audio piece; and, (3) an individual user’s project or audio piece.

User is: (1) a person who operates the electronic tools; (2) a person who, through somebody else, indirectly operates the tool; or (3) in the system, user is the owner of files.

Web-cast means to transmit and play at a certain time via de web.

1.4 Framework

eRadio: empowerment through community web radio.



1.5 Background

But quite apart from the dubiousness of its functions, radio is one-sided when it should be two-. It is purely an apparatus for distribution, for mere sharing out. So here is a positive suggestion: change this apparatus over from distribution to communication. The radio would be the finest possible communication apparatus in public life, a vast network of pipes. That is to say, it would be if it knew how to receive as well as to transmit, how to let the listener speak as well as hear, how to bring him into a relationship instead of isolating him. On this principle the radio should step out of the supply business and organize its listeners as suppliers. [Brecht, 1932. p. 52]

1.5.1 Radio as media

Communication is a basic instinct in human nature. The forms in which we communicate have not changed through time. Those forms—storytelling, dialogues, interviews, plays—are just adapted to the incoming media. However, radio still is, as shown in Figure 1-1, the medium with the highest penetration; it is a low-cost and easy-to-use information and communication technology and does not require literacy skills nor visual and tangible attention [Eltzroth, 2003], which means listeners can be doing other things with their eyes and hands, such as working, driving, and cooking.

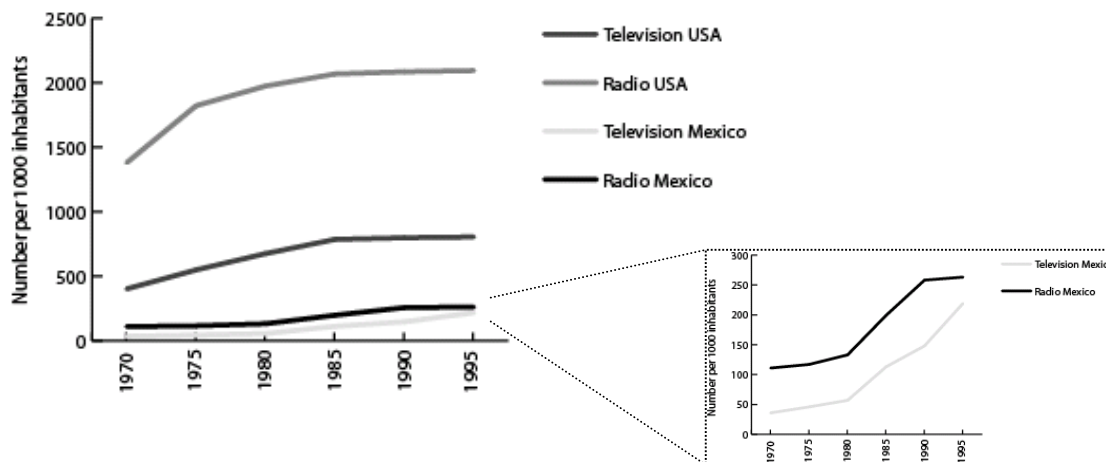


Figure 1-1. Radio and television receivers in Mexico and the United States 1970 – 1995
[data source: UNESCO Institute for Statistics, 1999; graphs: Weltri-Santos, 2004]

1.5.2 Related applications

There are many interesting initiatives related to radio broadcasting and web-casting that can be grouped into six areas: community radio, radio broadcasting, Internet radio, active information production, sharing audio on the Web, and the broadcasting process.

Community Radio

Community Radio encourages rural communities to have a **social voice** and strength by being informed [Strömberg, 2002] and by being **active participators** of its production [Price-Davies and Tacchi, 2001]. “Radio is not only a mighty awakener of archaic memories, forces, and animosities, but a decentralizing, pluralistic force” [McLuhan, 1994. p. 306]. An ongoing ambitious initiative is “The Mali Community Radio” project that is about giving access to community radio stations within a country to exchange radio programming [Geekcorps site]. **Storytelling** projects are concerned with recording people’s stories [Story Corps site; Radio Diaries site]. Radio is even used **to compensate for physical distance**, as the people from the Pacific Islands who utilize high frequency radio to send and receive e-mail [Hermida, 2004].

Relationship between radio broadcasting and Internet radio

The relationship between radio broadcasting and Internet radio is an open opportunity to exploit the advantages of each medium joined into a single force. This relationship provides advantages that include: (1) the generation of audio pieces in a different geographical location from where they will be transmitted; (2) the access to pieces by different radio stations, at any time; (3) the creation of bridges between distant communities to “voice their concerns and share information” [The World Bank, 2002].

Internet radio

Many radio stations, individuals, communities and organizations, such as National Public Radio, “From the Top,” “Radio Chi: Un tributo a la radio Mexicana,” “New California Media,” and “Radio Arte” are involved in web-casting. The last three highlight **cultural values** [NPR site; From the Top site; Radio Chi; New California Media site; Radio Arte site].

Electronic processes for active information production

“Silver Stringers” and “Junior Journalists” are electronic publishing communities [Silver Stringers on-line publication; Junior Journalists publication; Smith, *et al.*, 2000].

Sharing audio programming on the web

“OneWorld Radio” is a website meant to **share** audio worldwide for and on radio development [OneWorld Radio site]. There is also a project where two radio stations exchange radio programs for **training**, though it seems that it is only a one-way production scheme, USA to Mongolia transmission, and the programs are translated [Knight International Press Fellowships site].

Technology to experience the broadcasting process

Hart was interested in having people from developing communities experience the whole broadcasting process, though he mentioned the necessity of a studio.

Ideally, there may also be a studio to allow different parts to be mixed, music or sound effects to be added, short excerpts placed together in a rapid montage to make a broadcast flow more quickly, and fades to enable a smoother link between sections. [Hart, 1997]

The electronic tool, VoxPopBox, we designed for eRadio performs as an inexpensive studio that can handle what Hart considered ‘ideal’ and much more. The “WorldVibrations Radio Station” was announced to begin in January 2004. According to its developers, it “performs all of the functions of a professional radio station, offering a live or fully automated ‘on-air’ studio, a production studio, and streaming media encoding.” However, it is very sophisticated and expensive [WorldVibrations site]. Twenty-two years ago, the Federal Communications Commission established the Low Power Television Service (LPTV) as a system for “local self-expression” in small communities. LPTV only reaches a local community and it is a one-way communication medium [FCC site].

1.5.3 Mexican indigenous community radio stations

Mexico is the only country that has a governmental indigenous national institute that has implemented indigenous community radio stations. Twenty are community-operated AM stations, with a broadcast range of 50 to 120 Km, and four are low-power FM stations operated by schoolchildren, targeting 5-million people belonging to 30 (culturally and linguistically) distinct ethnic groups. [Ramos and Diez, 2003; INI site] In some cases, messages from abroad are transmitted through these radio stations. However, two-way communication does not take place.

Radio speaks in the language and with the accent of its community [...] reflects local interests [...] heritage and the development of the cultures, economies and communities that surround it. [Girard, 2003. p. 7]