

## Chapter 23

# Internet Use among Rural Residents in North America

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### ABSTRACT

*Despite widespread advances in knowledge about how the Internet and other information and communication technologies are used as well as the barriers to access and proficiency with these technologies, there is surprisingly little knowledge on rural Internet use relative to other places. However, in recent years, scholars across a variety of disciplines have made some inroads in this area of study. In this chapter, the author summarizes the historical developments that provide a framework for studying Internet use in rural areas, discusses the state of our current knowledge, describes numerous important studies, scholars, and specific topics in this research area, and concludes with a discussion about future research.*

### INTRODUCTION

Research regarding rural Internet use in North America can be summarized or defined effectively as the study of 1) technological diffusion, 2) specific acceptance and usage patterns, and 3) consequences associated with disparities in access to and proficiency with information and communication technologies in terms of economics, medical services, commerce, and the influx of new ideas. Similar to less spatially specific

analyses of Internet use, many early studies in and perspectives on rural areas focused on the way that the Internet could enhance social relations and community participation, sometimes referred to as the utopian perspective (e.g., Stern and Dillman, 2006; Wellman, Quan-Haase, Witte, and Hampton, 2001) or conversely damage local ties by providing an outwardly focused tool, which would allow residents to essentially ignore local social ties and responsibilities, labeled the dystopian perspective (e.g., Turkle, 1996; Nie, 2001).

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However, perhaps what has made the study of rural places unique is the fact that rural communities, regardless of country, tend to have smaller and more homogeneous populations with relatively lower levels of education and income and, often, these places have at least some degree of geographic isolation. Thus, as the Internet emerged as one of the primary means of communication, some wondered if rural residents, who tend to have more smaller and localized social networks, would ever use or at the very least accept the tool as readily as their cosmopolitan counterparts (Stern and Dillman, 2006).

In recent years a layer of complexity has been added with the technological challenges associated with providing high speed Internet access to rural areas, (Horrigan and Murray, 2006); a situation that runs somewhat parallel to those of the telephone and cable television. In recent years, with the increasing reliance on the Internet for commerce, information on health, home economics, education, entertainment, as well as personal and professional communication, researchers developed interest in the way rural places, perceived as small, closely knit, and homogeneous, would potentially be affected by the Internet in ways that were dissimilar to larger, more heterogeneous urban, suburban, or fringe communities socially, technologically, economically, and in terms of basic adoption and usage.

## **Historical Developments**

The research concerning rural Internet use finds its intellectual history in the classical studies of technological change. For example, in Ferdinand Tönnies' *Gemeinschaft und Gessellschaft* (most often translated as "Community and Society" or "Community and Association") and Durkheim's *Mechanical versus Organic Solidarity*, we see the focus on the transition from the affective, community-orientated relationships of agrarian or rural life to the more anomic conditions of the urban world as the result of technological change.

These classic works impetus was the Industrial Revolution, which was not unlike the Internet revolution in that it proved to be rapid and transformative beyond the scope of what most people at the time would have predicted.

Based on these early works, some scholars suggested that the initial rise of communication technologies, such as the telephone, and their widespread adoption would change the way people related to one and other in rural areas (See de Sola Poole, 1983 for thorough description of contemporaries "forecasting" the social impacts of telephone). For example, Roland Warren (1978) argued that new technologies, in part, fostered an outward focus of individuals that threatened local solidarity as people were beginning to form non-local ties. Yet, Fischer (1992) and others have shown that the telephone was widely embraced in rural places, however, the complication associated with running telephone lines and other infrastructure to remote regions proved a considerable challenge. With an eye toward more recent information and communication technologies, Allen and Dillman (1998) in their classic work, *Against All Odds: Rural Community in an Information Age*, sought to assess whether these technologies affected relationships in a small rural town in the Western United States. What they found was that people could have greater access to the "outside world" but also maintain a local focus.

Once computers became personal and the Internet a pervasive media, studies on rural technology use went through an evolution of sorts that started with assessing home computer ownership, then moved to Internet usage as well as home access, which were soon then followed by studies of home access speed (e.g., broadband or dial-up modems) (Lenhart and Horrigan, 2003; Sligo and Williams, 2002). Many of these studies relied on Rogers' (2003) classic model for diffusion of innovation, the S-Curve, to explain the slow diffusion of technologies to rural areas (e.g., Hall, Dunkelberger, and Wheat, 2005; Lenhart and Horrigan, 2003; Sligo and Williams, 2002).

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