Chapter 8
Connections in the Sky

ABSTRACT

Information is becoming more and more accessible, and the most recent watershed development in this trend is wireless data transfer. This technology has become so mainstream so quickly that it constitutes a “wireless revolution.” It holds significant implications for many industries, of which a few examples are given in this chapter, and for society in general. In the future, much more data will be transmitted wirelessly, but before this can happen on a truly massive and global scale, tremendous infrastructure development will need to take place. Still, various companies are further developing wireless technology, and networks are becoming more widespread even in developing areas of the world. The future of the information industry and the way individual users interact with it will be highly impacted by wireless technology, and the role and extent of government regulation and the issue of privacy will become two pressing questions.

INTRODUCTION

Since the earliest days of recorded history, human beings have sought to learn more about the world around them. From the libraries of Alexandria to Charlemagne’s culture of learning all the way to Wikipedia, human history is full of attempts to catalog knowledge and make it accessible to more and more of the population. Beginning with the first online databases in the 1970s, the digital age has seen information gradually become more and more accessible and freely available to the public in forums and formats that continually change. Now we have entered yet another epoch, the wireless age, and we ask: what does the wireless age bring to the development of accessible, available knowledge?

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If the ideas behind the information industry have always been about making information more accessible, then the wireless revolution is the natural extension of that mindset. No matter how thoroughly connected and indexed the world’s computers might be, the need to be connected to the Internet via broadband wires is a major drawback to accessibility. Data is not truly freely accessible until it can be accessed by anyone and from anywhere. The wireless revolution has succeeded in casting off the shackles of location and space and helped the electronic information industry firmly integrate itself into the very fabric of our modern professional lives.

Consequently, data is now all around us. Bits of information in the form of online conversations, images, the great works of the masters, trailers for the latest blockbuster movie, movies themselves, and more are soaring back and forth through the air at increasingly dizzying rates. In a very real sense, we are now living within the flow of data. Our own local personal devices often conduct the radio airwaves that form the backbone of the world’s information infrastructure. Wireless data transfer is everywhere. The result is that information on just about any topic under the sun is freely available to anyone with an Internet connection.

But how did we arrive at such a state, and what is its implication for infonomics and professional information services? Even ten years ago, we did not see anything close to the number of wireless users that we do today. The platform simply did not exist yet. That means that in just a few short years, the technology has been developed, distributed, and integrated into society on a massive scale; it is perhaps the fastest moving industry in the history of the world. Figure 1 reveals the stunning growth of wireless information transfer by showing the percentage of the United States population that made use of wireless technology in 1995, 2000, 2005, and the present day.

As you can see, the last ten years have seen the number of wireless users more than double. It’s strange to think of such growth in light of the fact that really advanced mobile devices like the iPhone or the Droid have only been around for a few years.

This whole trend originally began just before the turn of the twentieth century, when German physicist Heinrich Hertz’s experiments in electromagnetism yielded interesting results. Hertz discovered in 1888 that, by various means, electromagnetic waves could be produced and transmitted to distant receivers. By 1909 his theoretical work had developed into the first radio transmitter and receiver system. Originally dubbed “wireless telegraphy,” the use of radio waves to transmit information was the world’s first example of wireless electronic information transfer.
Galaxy's Data Quality Program: A Case Study
www.igi-global.com/chapter/galaxy-data-quality-program/6540?camid=4v1a