

Chapter 7

Surveilling the Elderly: Emerging Demographic Needs and Social Implications of RFID Chip Technology Use

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ABSTRACT

This chapter describes the usefulness of RFID (Radio Frequency Identification Device) implant technology to monitor the elderly, who are aging in place in various retirement arrangements, and who need to maintain optimal functioning in the absence of available, and on location, service or care providers. The need to maintain functioning or sustainable aging is imperative for countries experiencing rapid growth as a demographic trend for the elderly. The chapter also raises some concerns including the social acceptance or rejection of RFID implant technology, despite the utility of the device. These concerns include a variety of political, social, and religious issues. Further, the chapter also attempts to show how RFID implant technology could be used in combination with other emerging technologies to maintain physical, emotional, and social functioning among the growing population of elderly. What follows is the introduction and a partial literature review on emergent elderly needs, and on the utilization of RFID and other technologies.

INTRODUCTION

Services to the aged population have been steadily improving in developed or developing nations over a number of decades, in part due to policy and funding allocations to promote improvements in

health and quality of life for the elderly, and in part due to the development of a number of tools involving some measure of advances in technology. Emerging technologies, such as the RFID tag and responder implants, may make possible the capacity to remain a functioning, productive

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and engaged member of a contributing portion of the society of which they are members, for many more years than previously expected for those who are willing and those who have some level of access to such technology. As the demand for these services and emerging technologies are expected to increase over the next several decades in both developed and developing countries, sustainable aging may become a more commonly understood construct and social and economic reality.

LITERATURE ON THE ELDERLY AND DEMOGRAPHY

Globally, there are some alarming growth trends in the numbers of elderly and projected elderly relative to anticipated service needs, due to the rapid and belatedly anticipated swelling of the aging portions of the population. For example, for the first time in recorded history, the number of surviving elderly members of the planet will be greater than the number of living children aged five years and younger. A recent United Nations estimate suggests that the global elderly population will more than double over the next forty years. Europe is also expected to lead in the trend having the largest proportion of elderly per population during this period. However, China and India, having larger populations, also have greater total numbers of elderly than most other countries, with these numbers expected to triple during the same time frame (The Demographics of Aging, 2011).

Demographic trends in these developed and developing countries suggest, however, that fewer young people will be available to meet the labor and economic needs of their societies while servicing larger and larger segments of the population who are expected to retire over the next several decades. This is also true of Asian populations in developed areas, as well as developed Middle Eastern, African and Western cultures. As a result, immigrations trends in these areas are expected

to increase, in part due to service needs for the elderly. The term “aging in place” has emerged to describe the less mobile, more service dependent and possibly less productive and less functional, elderly. Service needs for these elderly, and others, may be generally conceptualized as falling into the categories of physical, emotional and social needs, as differentiated in the aging literature.

A global investments organization projects that the world population of above age 65 years is expected to increase from 6.9% in the year 2000 to 19.3% by the year 2050 (International Wealth Solutions, Ageing Demographics, 2008). Population growth overall is expected to slow, however, with decreases in fertility rates. The United States, a highly developed country, may be used as one example. The already large aging population, estimated at 12.3% in the year 2000, will be increasing to 21.1% by the year 2035. As a result of these demographic shifts in the proportion of the aging population, there may be insufficient numbers of available laborers to service either the needs of the elderly, or in some cases, segments of society as a whole. Employment is expected to be available in surplus, but not enough workers will be available in some developed areas to suffice these needs, resulting in expected labor shortages (Foreign-Born Workers and Baby Boomers, 2010).

There are a number of causes for the changing demographics relative to aging in industrialized first world countries. Fluctuations in birth rate are part of the issue, as with the well known baby boomers of the United States. A boom, or expansion of the number of births, began at the close of World War II in the United States, which has dramatically contributed to the current number of elderly. Another reason for a growing elderly proportion of the population is declining fertility rates in several large developed countries. This may be due to policy, as in the case of China where one child to a family has been the policy and expectation for some time, or due to increases in utilization of family planning services, abortion, and increased utilization of contraceptives.

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