Chapter 10

User–Centric and Inclusive Design Methods:
Implications for E–Healthcare

Alastair S. Macdonald
The Glasgow School of Art, Scotland

David Loudon
The Glasgow School of Art, Scotland

Christopher S. C. Lim
The Glasgow School of Art, Scotland

ABSTRACT

This chapter discusses the role of user-centric and inclusive design methods in healthcare pathways. The rapid uptake of e-health technologies by clinicians and healthcare managers to administer, for example, patient records, has meant that user-centered e-health tools and processes should be adopted to enable those receiving healthcare to become more involved, more proactive in, and more responsible for their own healthcare and its planning. An argument for a user-centered approach as good business practice can also be made. The three case studies described in this chapter are united by a concern for the individual, the end-user, at the heart of healthcare processes, and how design methods, which have a strong emphasis on the consumer or user perspective, can assist the changing requirements for healthcare delivery through an improved, earlier and ongoing engagement with the recipients of health care.

INTRODUCTION

With the rapid uptake of e-health technologies by clinicians and healthcare managers to administer, for example, patient records, it is of equal importance that user-centred e-health tools and processes be adopted to enable those receiving healthcare to become more involved, more proactive in, and more responsible for their own healthcare and its planning. Design methods and processes, with

their strong emphasis on the consumer or user perspective, can assist the design and delivery of healthcare to ensure that decisions made are more representative and equable, and foster positive new relationships between health professionals and their patients. This chapter discusses the role of user-centric and inclusive design methods in healthcare pathways through three case studies.

CONTEXT

The Age Shift

The ageing of populations is a phenomenon occurring throughout much of the developed world due to reduced total fertility rates and an increase in life expectancy. This is characterised by an increase in the proportion of the elderly, which is growing at a faster rate than the population of the world as a whole. The numbers of older people has tripled over the past half century and will more than triple in the next. The 20th Century saw life expectancy rise in the developed world by 30 years. Projections by the United Nations (2006) show that by 2030 at least half of the Western population will be over 50, with a life-expectancy for 50 year olds of a further 40 years, and that by 2050 the proportion of 65+ in the EU will comprise approximately 28% of the total population. Ageing in some regions will be particularly acute: in 2004, China's elderly made up just 11% of its population, but by 2040, the UN predicts (Jackson & Howe, 2006) that this will increase to 28%, a larger proportion than for the US. Alongside changing demographic and improved healthcare there has been an accompanying shift from a predominance of infectious to chronic diseases. As populations age, the numbers affected by associated impairments increase, and pathologies tend to be complex in the geriatric domain (Isaacs, 1965). In older populations, the diversity and range of physical, sensory, and cognitive capabilities are higher as is the likelihood of co-morbidity.

Drivers in Healthcare Policy

Change Towards People-Led Policies

This change in population demographics and associated health conditions has been one of the drivers of change in healthcare policy and delivery. The consumer of healthcare has traditionally been seen as the passive recipient; however, with recent policy changes as well as the introduction of the idea of the 'expert patient' there has been a move to acknowledge the patient perspective to a much greater extent. Although patients and professionals may share the same goals, *i.e.* the successful management and treatment of the patient, they do not necessarily agree on the important routes to those goals. One can often see healthcare organised for the convenience of the management of an organisation or its clinical staff and most solutions are geared towards either of these ends. However, in many regions there is a shift towards prioritising more the end-beneficiary and to encourage people to take more responsibility for some of their health outcomes by creating a patient-led service (NHS Scotland, 2005a). One example of the shift in thinking is a desire to bring the views of the public and patients into planning, delivery and development of NHS services (NHS Scotland, 2005b) with the aim that patients 'experience a smooth and quick journey of care' (NHS Scotland, 2006).

Patient Pathways

By their very nature, healthcare services are complex systems, and the means to achieve this priority shift requires user-centered processes and methods, and ones that can deal with complexity. Traditionally, many of these complex systems have tended to be articulated in writing, but this historical approach has proved inadequate. However, while clinical models and technologies for managing and sharing patient information (primarily clinical) have evolved significantly, the tools to

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