

Chapter 5.21

Factors Motivating the Acceptance of New Information and Communication Technologies in UK Healthcare: A Test of Three Models

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ABSTRACT

This paper discusses the use of three published models, the Technology acceptance model (TAM), Rogers diffusion of Innovation theory (IDT), and the Triandis theory of interpersonal behaviour (TIB), and attempts to bring them together in an integrated model to better predict the adoption of new information and communication technologies by a cohort of health professionals within UK primary care in an attempt to aid implementers in bringing technology in at an organizational level.

INTRODUCTION

Over the last 25 years, public healthcare delivery has been undergoing continuing changes. This has included the use of new information and communication technologies in a bid to improve services to patients, speed up waiting times, and addressing structural problems in the National Health Service (NHS). These changes have been largely driven by technical competence on the medical side but not matched sufficiently in technical organizational improvements. This article

discusses the use of three published models, the Technology Acceptance Model (TAM), Rogers Diffusion of Innovation theory (IDT), and the Triandis Theory of Interpersonal behaviour (TIB), and attempts to bring them together to assist in the political decision to bring technology in at the organization level too.

PUBLIC HEALTHCARE IN THE UK: AN OVERVIEW

Within the United Kingdom, there exists a plethora of organizations and bodies providing the majority of healthcare in the UK including general practitioners to accidents and emergency departments, and dentistry. These organizations all fall under the National Health Service (NHS), the publicly funded healthcare system of each part of the UK, which in theory is managed by the Department of Health. Services provided under this organization are characterised by free service to all citizens and is divided into two levels of care, primary and secondary.

In the United Kingdom, a patient must first see their own doctor (referred to as the GP) located in close proximity to the patient's home. GP's are the first point of contact for users in the UK. This level of service provided is known as primary care. At present, 90% of all health and social care contacts with the NHS are through primary healthcare (NHS, 2001). Primary healthcare is provided through a combination of general practitioners and community medical workers. Services such as district nursing and child health monitoring are provided by community medical workers. If specialist help is required by a patient, he or she will be referred to a hospital or a consultant by their GPs. This is referred to as secondary care, as self-referral is not allowed and the clinical condition presenting normally cannot be dealt with by a primary care specialist and so is dealt with at this level.

One major problem in the NHS is that of communication between hospital specialists and general practitioners particularly in inner city areas. The written communication between GPs and consultants have been highlighted as being of poor quality (Rowland, 1992) and often having poor educational value (AGHTA, 1996). This problem has led to problems occurring in the outpatient referral system in terms of delays for hospital appointments, leading to frustration by patients (DOH, 1991).

In addition to this, there have been problems with out of hours GP services (Hallam, 1994), which has led to recommendations being made for more access to the healthcare system through entry points such as NHS Direct (Rogers, Chapple, & Sergison, 1999).

The government, in an effort to modernize the National Health Service and to deal with the numerous structural problems, have emphasized in policy initiatives the vision for connecting health policies with the capabilities of new information and communication technologies, which are able to provide new kinds of service that are more responsive to public needs and speed up access to healthcare. *The Information Strategy for the Modern NHS* (1998-2005) was seen as both visionary and relevant to the needs of the NHS. In the *Information for health* policy document for example, removing distance from healthcare was seen as a goal of the innovative technology Telemedicine.

Opportunities in the field of telemedicine will be seized to remove distance from healthcare, to improve the quality of that care, and to help deliver new and integrated services. GP's will be able to send test readings or images electronically to hospital specialists many miles away and in the same way receive results and advice more quickly (National Health Service Executive, 1998)

One of the major programmes, which the government has initiated, is the National Programme for IT for which an overview is provided.

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