

Chapter 13

Medical Transcription a Pioneer in the Healthcare Informatics

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ABSTRACT

Despite the importance of medical records, relatively little is known about medical transcription, a process through which voice files are transformed into healthcare documentation. This lack of knowledge is evident in academic research with no previous studies of medical transcriptionists (MTs) or the medical transcription service organizations (MTSOs) in existence despite the central role of the industry in the creation of healthcare documentation. The proposed chapter is a detailed ethnographic study of the medical transcription process. While its general aim is to document the impact of technology on the process of medical transcription, the topic resides in a broader array of issues that include the impact of technology on the workplace, and how assumptions of work drive technological design. The central issue being examined is what is the extent to which technology can replace workers and how design decisions impact practice by either facilitating or impeding it. Given the thing being produced is vital for medical treatment, resolving this question is not only of academic interest, but important to everyone who has a medical record.

INTRODUCTION

Quality medical care often depends on a quality medical record. For most doctors, one of the most time consuming functions are having to go through a patient's medical history. This could include the patient's pre-visits, family and social

history, recommended medication, the follow up check up, and so on. What if all these functions could be taken care of with an Electronic Medical Record (EMR) system that would not only speed up the doctor's interaction with the patient chart, but ensures better care for the patients. Electronic Medical Record software does exactly this. More than just medical practice management software, it is a HIPAA compliant physician software ap-

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plication that simplifies the way patient charts are managed in the doctor's office. Our experience in **medical transcription** field helps us to do this in a most fruitful way.

Medical transcription (MT) is one of the most sophisticated medical language specialty allied healthcare profession, which has become an indispensable element in the modern healthcare industry. The main challenge that medical transcription business face in an increasingly competitive marketplace is the ability to offer high quality and cost effective customer support to all customers all the time. This is only possible with the automation of as many parts of the customer support process as possible in order to handle large workload on a regular basis while maintaining the human aspect of the experience. Since its inception, emerging technologies focused on the research and development of software solutions based on the speech recognition technology is going on. This chapter incorporate various aspects of medical transcription from the process, issues, controversies, problems, hardwares and software's used, future research directions, etc. (en.wikipedia.org/wiki/Medical_transcription, 2008)

BACKGROUND

The evolution of transcription dates back to the 1960s. The method was designed to assist in the manufacturing process. The first transcription that was developed in this process was MRP, which is the acronym for Manufacturing Resource Planning, in 1975. This was followed by another advanced version namely MRP2, but none of them yielded the benefit of medical transcription.

However, transcription equipment has changed from manual typewriters to electric typewriters to word processors to computers and from plastic disks and magnetic belts to cassettes and endless loops and digital recordings. Today, speech recognition (SR), also known as continuous speech recognition (CSR), is increasingly being used, with

medical transcriptionists and/or "editors" providing supplemental editorial services, although there are occasional instances where SR fully replaces the MT. Natural-language processing takes "automatic" transcription a step further, providing an interpretive function that speech recognition alone does not provide (although MTs do).

In recent years, medical records have changed considerably. Although many physicians and hospitals still maintain paper records, there is a drive for electronic records. Filing cabinets are giving way to desktop computers connected to powerful servers, where patient records are processed and archived digitally. This digital format allows for immediate remote access by any physician who is authorized to review the patient information. Reports are stored electronically and printed selectively as the need arises. Many MTs now utilize personal computers with electronic references and use the internet not only for web resources, but also as a working platform. Technology has gotten so sophisticated that MT services and MT departments work closely with programmers and information systems (IS) staff to stream in voice and accomplish seamless data transfers through network interfaces. In fact, many healthcare providers today are enjoying the benefits of handheld PCs or personal data assistants (PDAs) and are now utilizing software on them for dictation. Also, a software named Computer Aided Medical Transcription (CAMT) software is exclusively designed for medical transcription industry. The CAMT software change spoken words to texts. Using this software you can easily increase your editing speed. In this software, editing is done as fast as keyboard strokes and shortcuts.

As with most industry, **medical transcription service organization** is also experiencing expanded distribution and globalization of its work. This is resulting in questions regarding which technologies will evolve to increase efficiency & accuracy, decrease turnaround time, and support data capture. While many of these technologies such as digital dictation and electronic signature

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