



Lessons Learned from the History of Technology Adoption in the US Textile Industry

Dr. W. Douglas Cooper
Professor of Business Information Systems and Operations Management
Belk College of Business
UNC Charlotte
Charlotte, NC

ABSTRACT

Frederick Allen, writing in American Heritage of Invention and Technology discusses the nation's technological achievements during the twentieth century. In his article he reminds the young reader that the seeming chaos created for the current generation by an information age, where changes are discontinuous and happening at a geometric rate, are not really new to human history. The same type of chaos was well known to the great-grandfathers of the current generation.

Keywords: Invention, technology, supply and production.

Introduction

"So 100 years ago we didn't have an Internet or cell phones, but we did have networks of telegraphs and telephones for instant communication around the world; we didn't have superhighways or 747s, but we did have trains and steamships that reduced the longest journey to a tiny fraction of the time it had taken only decades before; we didn't have television but we did have motion pictures and we had newspapers bringing us nearly instant news."

From Allen we learn there is something universal about the constant change of technology. We learn that technology has never been, and never will be, good or bad. It is neither inherently good nor bad because it is all about what people ask for and do. It

is about human activity. Technology reflects both the best and the worst of humans.

Following Allen's thought process, it follows that technology invention and adoption can be explained by studying human activity and the processes used to channel their activities. It is the bias of this author that while the process of invention is not necessarily about economic survival (necessity is the mother of invention); the adoption process of choosing among alternative available technologies within a competitive business environment is about economic survival. Here, the operative word is competitive. The process of invention is often carried out as a non-competitive process of discovery and scholarship. Often the process of invention is governed by a desire to achieve a monopoly position for a process that can be exploited for future monopoly profits. However, given