Chapter II

Digital Prepress:
Issues and Solutions for the Preparation of Print Media

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ABSTRACT
This chapter identifies changes that the printing industry has undergone during the past 25 years as a result of the digital revolution. It also provides a brief historical perspective of the printing industry and how it has evolved. It is undeniable that the computer has had an impact on the development of print media and today it is rare to find any prepress work done without the use of some digital technology. The workflow of a traditional printed piece is described from start to finish and is compared to a more modern digital workflow to familiarize readers with the processes and contrast the old with the new techniques. This chapter will identify common problems that occur in the preparation of print media using digital technologies. In particular, it will explore a variety of problems and solutions related to the use of digital prepress as well as identifying new innovations intended to improve prepress operations in the future.
INTRODUCTION

The printing industry has undergone major changes during the past 25 years as a result of the digital revolution. It is undeniable that the computer has had an impact on the development of print media and today it is rare to find any prepress work done without the use of some digital technology.

This chapter will provide a brief historical perspective of the printing industry and how it has evolved. The workflow of a traditional printed piece will be described from start to finish and will be compared to a more current digital workflow to familiarize readers with the processes and contrast the old with the new techniques. It will also identify common problems that occur in the preparation of print media using digital technologies. In particular, this chapter will explore a variety of problems and solutions related to the use of digital prepress as well as identifying new innovations intended to improve prepress operations in the future.

Traditionally, the central purpose of printing was to generate reproductions in quantity. Before printing existed, scribes reproduced manuscripts by hand — a slow and arduous task. Frank Romano, in the foreword of his book, *Pocket Guide to Digital Prepress*, tells the story of a German monk who, shortly after Gutenberg’s development of cast-metal movable type sparked the advent of printing, authored an essay titled “In Praise of Scribes”. The essay advocated the continuation of copying manuscripts by hand because of the character-building values it instilled in the scribes. The ironic part of the story is that the monk decided to have his manuscript printed. The moral that Romano teaches us is that the monk “was caught in the paradox of transitioning technologies” (1996, iv) and that a similar situation is certainly taking place as digital technology revolutionizes the printing industry.

BACKGROUND

Movable type, as a matter of fact, existed long before the time of Gutenberg. Clay letterforms have been traced back to China where they were used during the Sung dynasty as early 960 A.D. Wooden movable type were also used in the Southern Sung (1127-1276), tin movable type in the Yuan (1271-1368), and bronze movable type were widely used in the Ming Dynasty (1368-1644).

However, the concept of mass-reproduction of graphic images was not realized in Europe until Gutenberg, through his knowledge of metallurgy and entrepreneurial spirit, created metal type and adapted a wooden screw-type
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Ana Paula Baltazar dos Santos, José dos Santos Cabral Filho, Guilherme Ferreira de Arruda, Lorena Melgaço Silva Marques and Marcela Alves de Almeida (2014). 
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