

Evolution of Non-Impact Printing Technologies

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Abstract

The first NIP Congress was entitled Advances in Non-Impact Printing Technologies. It was held in Venice, Italy a little more than 20 years ago. One of its highlights was a panel discussion with the presumptuous title "Future Directions of Non-Impact Printing Technologies". The panel consisted of seven experts who covered electrophotography, electrostatic, thermal, ink jet, magnetic and related materials technologies. Fortunately, there is a documented record of the panelists' presentations, the opening remarks by the moderator, himself an expert, and brief recapitulations of some of the many questions and comments from the attendees.

The predictions offered by the panelists and their moderator will be combined with projections contained in individual papers presented at this same Congress. They will be put into context by describing the technical status of the various non-impact printing technologies in 1981. Applications and approximate market penetration will also be covered.

Current (2001) technical and applications status will be compared with the 1981 predicted future directions for each

non-impact printing technology thereby highlighting the clairvoyance, or lack thereof, of the predictions. The most significant advances, technical and non-technical, that account for the current status of non-impact printing will be described briefly.

The "Back to the Future" part of the presentation will consist of technical and applications extrapolations based on the author's experience, knowledge, imagination, and intuition.

Biography

Dr. Joseph Gaynor received a Ph.D. from Case Western Reserve University. His industrial positions include Manager of Information Materials and Systems and the General Electric R&D Center, vice president-research of Bell & Howell Business Equipment Group, and president of Innovative Technology Associates, his current position. Dr. Gaynor has published and consulted extensively on non-impact printing. He was instrumental in organizing the first NIP Congress. He is a Fellow of AAAS, American Institute of Chemists and IS&T and also is a senior member of IS&T.