

# Ubiquitous Imaging: Are We There and What are the Challenges?

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## Abstract

*In 1991, Mark Weiser at Xerox PARC laid out an ambitious vision for computing in the 21st century that came to be known as Ubiquitous Computing. Assuming availability of the computing infrastructure, Weiser defined a paradigm for interaction inspired by constant access to information and services. Specifically it dealt with three themes: natural interfaces, context aware applications, and automated access. Through incredible advances by researchers around the world over the past 15 years, several of the seminal ideas from Weiser's vision are already part of our everyday life: PDAs, WiFi, the portable computing paradigm, the Blackberry, text messaging. As we move in 21st century, it is important to explore whether a new parallel paradigm of equal magnitude is occurring in imaging, which we define as Ubiquitous Imaging. In this talk, we will explore the opportunities around Ubiquitous Imaging starting from history by comparative analysis with Ubiquitous computing, and assess whether we are there, and explore challenges in this new emerging area.*

## Author Biography

*Siddhartha Dalal is Vice President and Center Manager of Imaging and Services Technology Center (ISTC), at Xerox located in Webster, NY, El Segundo, CA, and Palo Alto, CA. It is the focal point for Xerox's core research in digital imaging, document management and services.*

*Prior to joining Xerox, Dalal headed a number of industrial research positions in the Telecommunications starting as a Member of Technical Staff in the Mathematics Research at Bell Labs, Murray Hill and Director of Software Engineering & Statistical Modeling Research, and Chief Scientist at Bellcore. Most recently he was the Executive Director of Information Analysis & Services Research at Telcordia Technologies, an SAIC company.*

*Dalal has more than seventy publications and several patents in Software and Network Engineering, Computer Science and Statistics and has coauthored two monographs by National Research Council. He has been the recipient of numerous awards including for the work on behalf of the National Academy of Sciences on the Space Shuttle Challenger disaster; from IEEE and ASQ for the invention of combinatorial design testing, a Fellow award from Bellcore for research leading to major commercial products, and Rochester Distinguished Scholar Medal from the University of Rochester.*