

Dot-dash to dot.com -- How modern telecommunications evolved from the telegraph to the internet

EurekAlert

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While sending texts, watching videos, receiving email, and taking photos from a palm-sized smartphone, very few people stop to think about the extraordinary changes in communication technologies that have occurred since Samuel Morse developed his first prototype telegraph in 1835. In a new book, *Dot-Dash to Dot.Com — How Modern Telecommunications Evolved from the Telegraph to the Internet*, Andrew Wheen chronicles the lightning-fast development of today's global telecommunications system from its earliest days.

In the early nineteenth century, the lack of fast and reliable communications could have devastating consequences. In 1812, a message was sent by sea from England to inform the United States that the British would no longer interfere with American shipping. Unfortunately, the United States declared war over the issue while the message was still crossing the Atlantic. Fighting had broken out by the time that the message arrived, and nearly 4,000 British and American soldiers were killed before hostilities ended. If better communications had been available, the War of 1812 might never have happened.

The invention of the telegraph in the late 1830s had an impact on the Victorian world that was every bit as significant as the Internet has been in more recent times. Indeed, the invention of the electric telegraph paved the way for telephone networks which, in turn, laid the foundations for today's Internet. In less than 170 years, simple arrangements of magnets, switches and cables evolved to become the largest and most complex machine in the world.

How did this happen? What were the inventions that shaped modern communications? Who were the key players in this amazing story? How does the Internet work? And what is coming next? This fascinating and long-overdue book answers these and many other questions, bringing to life the characters, the times they lived in, and the technological revolution that they brought about.

Dot-Dash to Dot.Com

- describes some truly heroic feats of 19th century engineering, and the impact that the first telecommunication systems had on the Victorian world;
- reveals how the success of the electric telegraph led to the development of

the telephone and the fax machine;

- explores the early experiments that led to the Internet and the World Wide Web;
- explains how networks work — and why they sometimes don't;
- introduces a number of larger-than-life characters, whose inventive genius and entrepreneurial flair left an indelible mark on the modern world.

Andrew Wheen has worked in the telecommunications field since 1982. He has held senior engineering and product management roles with major suppliers of telecommunications equipment and was one of the original architects of the Energis network in the United Kingdom (now Cable & Wireless). More recently, he has worked as a management consultant in the telecommunications and broadcasting industries. Dr. Wheen is a Fellow of the Institution of Engineering and Technology and is a Chartered Engineer.

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