

# **The Internet and American Business**

**edited by William Aspray and Paul E. Ceruzzi**

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## Preface

This book is a historical study of the effect of the Internet, a recent advance in communications and computing technology, on traditional business practices in the United States. We begin with a brief look at the technological evolution of the Internet. We then quickly move to uncharted territory, in which we treat the existence of a robust and powerful computer network as a given, and examine what has happened as a result of the Internet's creation.

More than ten years have passed since the Silicon Valley company Netscape had its initial public offering, an event that many argue triggered the gold rush of Internet commercialization. It has now been about five years since the "Internet bubble" burst, leaving behind a well-told story of bankruptcies, lawsuits, and plunging stock valuations. A look at U.S. business history reveals that this is not the first time such bubbles have occurred. The overbuilding of railroads in the nineteenth century and electric power networks in the early twentieth century followed a similar pattern. Huge fortunes were amassed, scoundrels went to jail, newspapers ran daily stories of malfeasance, and investors lost personal savings. But after all that happened, the nation was left with an infrastructure on which it could trade and prosper. Parts of that infrastructure survive and are in heavy use today. The same is true with the Internet. The bursting of the bubble in 2000–2001 left behind a mesh of high-capacity fiber-optic telecommunications lines, a network of switching nodes, routers, switching, and database software, and a host of other components that are the twenty-first-century counterpart to the nineteenth-century rail network or the twentieth-century electric power network. A present generation of businesses can use this infrastructure. The technology is still evolving and advancing rapidly, but enough has stabilized for commercial interests to concentrate on their business model, not on chasing or building the technological base. The major components are in place, and one can turn to a stable group of suppliers of hardware and software, such as Cisco, Sun, Oracle, and IBM. That story is the prologue. The emergence of those suppliers set the stage for the main thrust of this book: the practical commercial use of this remarkable technical accomplishment.

In developing this book, we consciously made an attempt to balance the focus of the daily press on a few well-known facets of this story, such as Amazon's success in online selling or Google's success in selling advertisements on its pages. These stories leave out a large swath of territory. Some companies use the Internet to replace proprietary networks they had previously built for internal use; the consumer would never see these, but they are no less important. Others combine the Internet with traditional business practices to come up with entirely new business models—to an extent Amazon is such a company, but there are many others that have done this in ways that are less well-known. The cliché one often hears is that the Internet reduces “friction”: the inefficiencies in transactions that are an inevitable result of parties to a transaction having incomplete, inaccurate, or out-of-date information. In practice that effect manifests itself in different ways, at different stages of a business transaction, and we propose to examine this phenomenon at these various points.

Related to that search for balance is our desire to give sufficient coverage to the threats that the Internet poses to traditional businesses. To continue the analogy above, the reduction in friction harms those who have made a business out of exploiting inefficiency. The following chapters are a first attempt to get an understanding of a dynamic and exciting period of American business history. We hope to have captured some of that excitement in the chapters that follow.