

Liberalization of the Postal and Delivery Sector

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Foreword

Information Revolutions and Modern Postal Service

James I. Campbell Jr.

When Professor Michael Crew asked me to offer a few after-dinner remarks during our session in Bern, my thoughts inevitably drifted back to the first gathering of this conference in Rugby, England in 1990. The occasion for that meeting was the 150th anniversary of British postal reforms adopted in 1840. Our host was the British Post Office, and we were housed in the postal college, a facility reminiscent of a college dormitory.

At that time, I was working for a private express company, and suspicion between public posts and private operators ran high. In Rugby I was invited to present a paper on Rowland Hill and the international postal system, but there was a condition. Royal Mail insisted that my presentation be followed immediately by a comment by its head of strategic planning, Roger Tabor. Apparently, Roger's job was to stamp on any heresies I might let loose in the ether. As it turned out, Roger was a most genial, charming, and open-minded fellow, and we hit it off immediately. When his turn came, Roger shocked the audience by making a few agreeable remarks about my paper and then going on to talk about what he wanted to talk about, which was something else entirely.

For me, this was the beginning of a most interesting and rewarding seminar. More importantly, it was the start of a wonderful series of seminars in which I not only learned a great deal from my colleagues but also gained many wonderful friendships.

Casting about for a topic suitable for the transition between dinner and nightcap, I considered briefly several subjects prominent in current debates over the best way to regulate postal services. In the end, however, I decided to follow the example of Roger Tabor and talk about what I wanted to talk about, an indulgence that, fortunately, was received kindly by my colleagues.

Anyone who has focused on the technical issues presented by a single sector—even a sector as varied and fast-changing as delivery services—runs a risk of losing perspective through overspecialization. By way of reaction, I

suppose, I have in recent years become more and more intrigued with the concept of an “information revolution.” It has become commonplace to observe that we are in the midst of an Information Revolution, in capital letters. So commonplace, indeed, that it is easy to take the idea for granted. What has interested me is the general notion that the current Information Revolution may be only the last in a series. Since there is no official list of information revolutions, I have drawn up my own. On my list, the current information revolution is number four.

The First Information Revolution that I have in mind was set off by the invention of the alphabet. A few years ago, my wife and I were visiting our son in Japan. He speaks and reads Japanese, so naturally we discussed differences between English and Japanese. Although I have been to Asia many times, it only dawned on me during this trip how vitally important the alphabet has been to civilization.

An alphabetic writing system is fundamentally different from a writing system based on pictographs and modifiers. The English alphabet has 26 characters. Written Chinese has tens of thousands of characters, of which, as I understand it, at least 2,000 characters must be recognized for basic literacy. In a society without an alphabet, writing is an art that takes years to master; written knowledge is the province of a learned few, an “establishment” which creates a powerful bias against disruptive new knowledge. In contrast, in an alphabetic society, production and consumption of knowledge can be spread more broadly. Almost anyone can master the basics of reading and writing an alphabet. With luck, a literate outsider can spark new ideas in others not only across distances but also across generations.

When we came back from Japan, I looked into the origin of the alphabet. The Chinese were not the only people who failed to think of an alphabet. Neither did the Egyptians, nor the Babylonians, nor the Mayans. Indeed, according to modern scholars, there is a strong case for the view that the alphabet was invented only once in all of human history. It appears that the alphabet was developed by the Phoenicians between 1000 and 2000 B.C. Greek, Latin, Aramaic and most other alphabets are directly descended from the Phoenician alphabet. In some cases—like Armenian, Cyrillic, and apparently Sanskrit—someone took the idea of an alphabet from the Phoenician system and invented new characters to fit a different language. There does not seem to be anything inevitable about the alphabet. Many learned societies never developed an alphabet. The Phoenicians themselves had writing for a thousand years before they hit upon the idea.

The invention of the first alphabet led to the First Information Revolution whose consequences are with us today. Although there is ample

evidence of the inventiveness of different peoples scattered across the globe, we are in large measure the intellectual descendants of those who first learned to write with an alphabet, most notably the Greeks and the Hebrews. We are reading their writings to this day.

My Second Information Revolution began with a more discrete event. In about 1450, a German printer named Johannes Gutenberg invented a printing press with moveable metallic type. The idea of a printing press with moveable parts also occurred to the Chinese centuries earlier but to little effect. Gutenberg's invention was so powerful in Europe in part because of the simplicity of alphabetic writing and in part because of advances in metallurgy.

According to some estimates, Gutenberg's press reduced the cost of reproducing knowledge by 90 percent. The ability to record and disseminate knowledge was magnified correspondingly. By 1500, there were 1,000 printing presses in Europe and roughly 10 million copies of 35,000 titles. Distribution of printed books had the important corollary effect of promoting standardization of language and spelling.

The most widely printed book was the Bible. Suddenly ordinary members of the clergy and even educated lay persons could read the Bible for themselves and compare the text to the doctrine of the Catholic Church, the major unifying influence in Europe for almost a thousand years. In 1517, Martin Luther's protest against the excesses of the Church was spread far and wide by printing presses. The social consequences were cataclysmic.

The printing press also facilitated wider dissemination of technological and scientific knowledge. "How-to" books appeared on topics such as mining, weaving, and construction. The seventeenth century saw the distribution of scientific books and papers, for example, Copernicus and Galileo. In 1662, the Royal Society was founded in England to promote the circulation of new knowledge. Proceedings of the Royal Society and similar organizations were published and distributed throughout the civilized world. In facilitating the spread of the ideas of the Reformation and the insights of the Scientific Revolution, the Second Information Revolution laid the groundwork for the Industrial Revolution, the great leap forward into the modern age.

The Third Information Revolution on my list is centered on the development of the modern post office in the early nineteenth century. As we were reminded at our first meeting in 1990, in one extraordinary legislative act, championed by Rowland Hill, the British government introduced many of the key features of the modern post office: a simple system of low postage rates, prepayment of postage using adhesive stamps,

and uniform national tariffs. As a British prime minister would put it later, British postal reforms “ran like wildfire through the civilized world.”

Yet there was more to the development of the modern post office than the British reforms. Somewhat earlier than the British, the Americans were also reshaping the concept of the national post office. American innovations are less famous but perhaps no less important. The early American government was faced with the unprecedented task of uniting a vast territory into a self-governing democracy. The people had to be educated. To do so, the Americans fundamentally transformed the idea of a national post office. Instead of a revenue-producing office within the Treasury, as in England, the American post office became a non-profit agency whose purpose was to promote national dissemination of news. Newspaper rates were heavily subsidized, and each newspaper had the right to use the Post Office to exchange news stories with other newspapers for free.

In effect, the American Post Office became the first national broadcast media and wire service. A Frenchman, Alexis de Tocqueville, travelling in the United States in the 1830s wrote: “There is an astonishing circulation of letters and newspapers among these savage woods . . . I do not think that in the most enlightened rural districts in France there is intellectual movement either so rapid or on such a scale as in this wilderness.”

Such institutional advances were complemented by a third factor, the application of steam power to the printing press. Like the introduction of moveable metal type, development of a practical power press enabled a vast expansion in the production and dissemination of knowledge. The first power press was put into service in 1814 by *The Times* of London, and the era of modern printing was launched.

The relationship between the power press and the modern post office was something like the relationship between personal computers and telecommunications. Greatly improved techniques for producing and distributing information stimulated each other. Newspapers grew from one page to many pages and assumed a larger role in the life of society. The great magazines of the nineteenth and early twentieth centuries emerged together with a host of scientific and literary journals. A caste of professional authors emerged. Marriage of the power press with the democratic post office created the first broadband network.

The expanded postal network lent itself not only to broadcasting but also to individual conversation. Before the era of “cheap postage” precipitated by the British reforms, most people lived in ignorance of the lives of friends and family for the lack of an affordable means of communication. The modern post office opened the way for all levels of society to converse with

persons throughout the nation and later, thanks to the Universal Postal Union, throughout the entire world.

Of course, soon after development of the modern post office, electronic technologies emerged that would provide faster or more pervasive means of communication. Nonetheless, the telegraph, telephone, radio, and television all lacked the versatility and information capacity of the post office. Until the late twentieth century, the national post office was the only information superhighway.

I do not believe that it is entirely coincidental that development of the modern post office has paralleled emergence of the first civilization in history built on democratic principles of government and a systematic search for new knowledge and better technology. The role of the modern post office in these great events is, I suspect, still underappreciated.

This brings us to the Fourth Information Revolution, the one going on around us. The Fourth Information Revolution is the product of advanced telecommunications and personal computers and their coalescence into a global Internet. We all know about the Internet, yet none of us knows what will be its ultimate consequences. While researching a paper on the future of postal regulation, I came across a thought-provoking observation by Peter Drucker. Writing in 2002, Drucker estimated that the present Information Revolution had reached a stage comparable to that of the Industrial Revolution in the early 1820s. In the 1820s, the crowning achievement of the Industrial Revolution, the railroad, was hardly more than a crude prototype. Over the next several decades, the railroad would go on to wholly transform every feature of civilization from commerce to military power.

Drucker's point was, of course, that the ultimate social consequences of a major new invention are far different from what can be imagined when the invention first appears. In the beginning, people use a new invention to perform existing tasks more quickly or efficiently. The most important consequences emerge only when people start using a new invention to undertake new tasks that could never have been done before. If we consider the Fourth Information Revolution in light of the first three, it seems that if anything, Drucker's ideas may have been conservative.

Looking back, we can discern a common thread running through these four information revolutions. At bottom, each has served to expand access to the pool of human knowledge. Indeed, one can nicely describe the first three revolutions in terms of the fourth. The first revolution, the alphabet, was in effect the invention of a brilliantly simple programming language for human knowledge. The second revolution, the printing press, added a simple and inexpensive mass storage device for knowledge. The third revolution, the modern post office, created an inexpensive and reliable network that

joined a wide range of producers and consumers of knowledge. The fourth revolution, the Internet, has upgraded this paper-based information network by several orders of magnitude.

Some scholars suggest that the advance of civilization correlates with the number of people who can communicate easily and access a stable stock of useful knowledge. There is no doubt that much of human history is a story of great insights left underutilized or forgotten completely. One philosopher, Alfred North Whitehead, has remarked that Europeans knew less science in 1500 than Archimedes did in 212 BC. The steam engine, the seminal invention of the Industrial Revolution, was first invented not by the British in the eighteenth century but by the Greeks in the first century. The Greek invention, however, was never developed and was eventually forgotten until reinvented 1,600 years later.

From the perspective of information revolutions, what we have been doing in this conference for the last 15 years is engaging in an extended conversation about certain aspects of the transition from the fruits of one information revolution to the possibilities of another. The mechanisms by which the stock of human knowledge is accessed and distributed have played a central role in the advance of civilization. The times we are passing through are extraordinary, but not wholly unprecedented. To take part in such a conversation in such a time has been an abiding pleasure for me, and I hope for you as well.

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