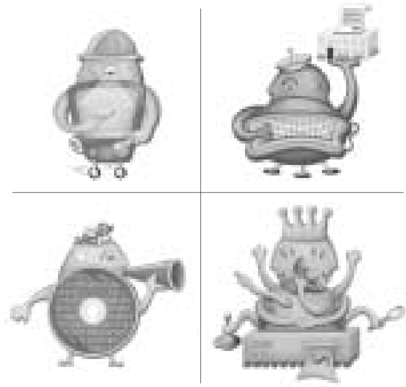
Chapter 1



Industrial Age vs. Information Age

Ever since the 1960s, business pundits have been forecasting that computers would transform the way we do our jobs, operate our companies, and earn our livings. Decades later, the Internet is paying off on that promise. E-mail has multiplied the flow of information within and between organizations. E-commerce is revolutionizing the sale of goods and the delivery of services throughout the world. Yet we have barely begun to tap the limitless opportunities brought by this latest, most powerful expression of the computer revolution.

As you read the many practical e-business strategies that fill this book, you are likely to find your imagination bubbling with ideas for ways in which your organization can benefit from the rush to do business in the online world of the Internet. However, before we begin to consider those strategies, it may help to look at some of the reasons e-business has taken so long to get off the ground. This may put things into perspective and help you to see more clearly how e-commerce fits into your own organization's established ways of doing things. If you work for an old, established company, it also may tell you a little about what you are up against.

Few companies, organizations, or even government agencies today effectively use their computers, let alone the Internet. We hear the same excuses for this every day, in almost any organization. Computers are costly. (That was the excuse for Election 2000.) Computer "geeks," the employees needed to manage the machines, are hard to find. They are also hard to relate to, as they seem to speak a different language. In addition, it is very hard to evaluate the return on investment of adopting new technologies. All these obstacles, we hear, inhibit tradition-minded executives from adopting modern, computerized business methods.

In fact, this situation has persisted for a reason that has nothing to do with cost or the alien and mysterious nature of computers. For the first few decades of the computer revolution, few organizations had much incentive to use computers to their full potential, or even to think about how they might do so.

Most large corporations used computers routinely by the mid-1960s; by 1968, IBM had shipped 14,000 of its breakthrough Model 360 in just four years. Yet these mysterious machines, locked in climate-controlled rooms and operated by an off-putting technical priesthood, did very little that human beings had not been doing since the invention of bookkeeping. They assisted in the processing of data, and the data they processed was usually “yesterday’s news”—last month’s financial statements, billing reports, sales and expenses, and the like. When the day, week, or month was complete, the computers spat out records of the company’s past transactions, perhaps with some rudimentary statistics attached.

This was known as “batch” processing, and it had little to do with the customer. It produced information for management of the company: It told managers in the Industrial Age how many units of a product to manufacture and distribute based on historical data and trends.

Companies in the Industrial Age did not really need much more than that. Their business was based primarily on the production of durable goods.

The Industrial Age

The Industrial Age was a time of mass production and mass marketing. An Industrial Age business accumulated great physical assets to build its strength. An automobile manufacturer owned not only the assembly plants, but rubber plants as well, and even shipping fleets to transport raw materials to and from the manufacturing locations. The key objective of Industrial Age corporations was to become mega-corporations, using their size and strength to isolate competition. For this reason, there were high barriers to market entry.

Industrial Age companies relied on economies of scale: They produced in high volume, thereby reducing their cost per unit, and flooded the market with their products. Production activities were fixed, and the goods were uniform; mass production did not allow for customization. Business improvement initiatives focused primarily on process efficiency and cost. There was little consideration for customer service. Processing customers' inquiries was not a priority; companies really had very little to do with their customers.

Hallmarks of Industrial Age Companies:

- Supply Economies of Scale
- High Barriers to Entry
- Mass Marketing
- Limited Customization
- Poor Customer Support

Supply Economies of Scale. In the Industrial Age, the more raw materials a company used, the more power it had to negotiate lower prices from its suppliers. In virtually every industry, this gave the largest manufacturer a powerful advantage over its smaller competitors. The larger the company, the less it had to charge to make a profit when it had to fight a newcomer to its markets, and the more money it could make when the smaller firm went under or was bought up and the market was again divided between a few giants.

High Barriers to Entry. It costs a lot to set up a factory, especially when making sophisticated products or churning out enough of them to serve a national or international market. It costs still more to set up branch offices, deal with legal restrictions in dozens or hundreds of different communities, and pay a host of other expenses. When companies grow large enough, they can take it all in stride. Startups in the Industrial Age faced yet another disadvantage.

Mass Marketing. Now add the cost of establishing and maintaining a national or multinational sales force and paying for ad campaigns in magazines, on the radio, and—most expensive of all—on television. Again, large companies can afford it, while small ones cannot.

Limited Customization. Henry Ford was eager to please his customers. They could, he famously said, have the Model T in any color they wanted, "so long as it is black." For a pre-computer manufacturer, tailoring products to the needs of individual customers is expensive; standardization costs far less. In the Industrial

Age, the ideal product was the Bic pen—a simple object churned out by the billion, each one as close as possible to being identical to every other. Thus, consumers faced an easy choice: They could accept whatever a manufacturer wanted to sell them, or they could hope to find another maker whose limited array of products included one that seemed more appealing. Customization was the realm of old-fashioned craftsmen, whose one-off creations could be afforded only by the wealthy.

Poor Customer Support. Mass production inevitably means mass consumption. And if one pen is identical to all the rest, then one customer is identical to the rest, for the manufacturer's purposes: One customer equals one unit of consumption, no more. Customer support becomes a kind of customization, a one-off expense to be avoided wherever possible.

This model of commerce was very satisfying for a while. By the 1980s, the output of consumer goods was higher than it had ever been, and consumers could choose from a wider variety of products than ever before. I remember when the shampoo counter in the supermarket had no more than five brands to choose from. Today, an entire supermarket aisle is filled with brands and subbrands of shampoos, conditioners, and hair products unimaginable in the '60s. As the variety became richer, consumer spending on what had once been considered luxury items rose rapidly. Corporate profits soared with them.

In those days, quality and customer support meant far less to producers than a good advertising campaign. Consumers were easily influenced by advertisements and promotions in all traditional media channels—television, print, and radio. Yet there came a turning point. Consumers in the last part of the 20th century became less and less enchanted by mere variety. Increasingly, mass production failed to satisfy them. Mainstream advertising ceased to excite buyers. Instead, consumers began to focus on the quality of the goods they bought and the service that marketers gave them. Poor product and bad service were no longer tolerated.

The Information Age

Enter the Information Age and the Internet, which many talk about as the force behind the transition from atoms to bits—the transition from the physical production of consumer goods to the digital production of information.

Suddenly, businesses and consumers had access to a ubiquitous network of information, rich in resources. Real-time communication offered unprecedented opportunities for conducting worldwide commerce. A different type of commerce emerged. This was electronic commerce—or e-commerce—and it was a totally new game, with new players and new rules.

Hallmarks of Information Age Companies:

- No Geographic Boundaries
- Smaller Barriers to Entry
- Improved Cost and Efficiency
- Customer Focused
- Innovations in Information
- New Organizational Models

No Geographic Boundaries. In the pre-Internet era, relationships with customers, employees, and suppliers were developed within shared geographic locations. A small retailer on Main Street primarily had access to the shoppers of Main Street. A large corporation could have access to shoppers in a much broader area, but only by developing a sales force and distribution network that effectively put a little piece of the company in each of those remote locations.

Today, because the Internet connects computers, and their owners, worldwide, geography no longer limits even a small company's access to customers. The Internet provides companies genuine access to a global village; there are no geographic boundaries. That little Main Street retailer now can sell its products to someone on the other side of the world. This is a dramatic change.

Consider it a frantic quest of—and for!—consumers worldwide. Consumers have finally been liberated and are able to search the globe for products and services that interest them. This is equally true for companies seeking to establish various business-to-business (B2B) relationships.

Thanks to the Internet, companies will increasingly be able to sustain important relationships at a distance, providing personalized service that meets the needs of unique customers, not just geographic market segments.

Smaller Barriers to Entry. Another important feature of the Internet is that in this new market the barriers to entry have shrunk. Unlike the Industrial Age, the cost of "setting up shop" today can be minimal. A company can create an Internet presence at very low cost. Prophet Eenie will show how a small company can produce a Web site that looks as professional as those of the big players who spend millions of dollars on their online shop, or can join an online mall in order to sell its products worldwide. The size of the company and its marketing budget no longer govern mass-market appeal. Promoting a business on the Web is relatively inexpensive compared to most forms of advertising. And, the business will be open 24 hours a day, seven days a week, including holidays.

Improved Cost and Efficiency. Improved cost and efficiency make this computer thing worthwhile. Computers are finally the productivity tools they were meant to be. This is to say that if computers are properly utilized, companies will see productivity improve greatly. If we can produce more in the same amount of time, with the same or less effort, costs of production go down. And computers are data-sorting tools. The better and quicker you can sort, store, and access critical data, the more efficient your business becomes. I am surprised at how many companies and organizations still use computers strictly for their word-processing tasks. Computers are not just glorified typewriters any longer, nor is the Internet just for sending goofy e-mails to your circle of friends.

I was recently looking for short-term apartment rentals in Tucson, Arizona. I was in New York, but had the greatest real-time tool imaginable—the Internet. I searched various places on the Internet and finally relied on a Web site at www.SpringStreet.com (part of the homestore.com network). Using SpringStreet.com, I was able to browse for apartment availability by location, size, monthly rental costs, and amenities. I was able to view photos and floor plans of the apartments. In some cases I was able to take a "virtual tour" of the properties. Although I am still in awe over the power of technology, today, Internet users tend to take this service for granted. It is painfully evident, however, that the owners of apartments not listed on this service or on the Internet were the losers.

I was able to customize SpringStreet.com by establishing a "My Stuff" section, where I kept a listing of the apartments that specifically interested me. I was able to instantly send e-mail to the apartment's leasing agent. The agents, using technology effectively and understanding the instantaneous nature of the Internet, were prompt and efficient in their replies. SpringStreet.com provided a link to maps and detailed directions, they allowed me to view neighborhoods and make note of shopping centers, parks, medical facilities, and other points of interest in the area. They provided moving and travel tips.

Computers, the Internet, data, sorting, customer interaction, good resourceful information—the experience was complete. What were the costs to the apartment lessors? Minimal! This Internet exposure cost far less than any other medium—direct mail, newspaper advertising, or catalogs. What was the exposure and potential for them to attract new lessees? Tremendous! Certainly, people in Tucson can use this tool when they seek relocation, but I was 2,600 miles away. This tool can be used by people on all ends of the planet. What was the efficiency for the users, both lessor and lessee? Unbeatable! How else would I have gathered this information as quickly and as efficiently? … And the lessors and lessees who did not utilize computers and the Internet? Losers. Period.

Customer Focused. The information economy is allowing businesses to become more customer focused. Being efficient, effectively managing customer data, and meeting instant communication demands, a business can rebuild the consumer confidence that had been rapidly declining. In effect it is a revelation for businesses—it is actually possible to make your customers happy! Businesses must use technology as a tool to help customers tell them what they want. Proper implementation and use of technology allow the business to understand the needs of the customer and develop a relationship with each individual. In the Information Age, businesses cater to customer's needs on a one-to-one basis. My SpringStreet.com experience shows clearly how this online real-estate company set out to serve my individual needs.

In contrast to the Industrial Age, where the mega-corporations were in control, in the Information Age the real power is with the customer. Information Age customers participate in defining, creating, and consuming information/value. Sellers once held an advantage over buyers by virtue of their superior knowledge of product features, cost, and availability controls. Today, buyers have increasing access to this information. This knowledge has shifted from producers to users. Customers have the power of choice. When they surf the Web, their move to a new supplier is only a click away. They have the power of customization, because smart Internet businesses use technologies to personalize offerings.

Because of the Internet, people have begun to expect instant, 24/7 access to information and resources. The Internet allows effortless, fast, inexpensive communication at all hours of the day or night. (I was able to surf SpringStreet.com at two in the morning.) With all of this opportunity available to them, consumers expect and demand more. Customers want explicit product data, the best pricing, online order tracking, and lots of guarantees. They want rich, contextual information that is easy and quick to navigate or search. They also demand a large selection of goods and services to choose from. Even more, they want a personalized experience. They feel good about the personalized experience! If you are a business in the 21st century, you must give your customers this instant, individualized service in order to survive.

Innovations in Information. Businesses that have awakened to the power of the Internet are beginning to understand that it can and should be used as more than just a marketing and information tool. They recognize that the Internet is reshaping the culture of business and transforming the way organizations process information. They realize that their ability to collect, manipulate, and analyze information makes it possible for them to tailor their offerings to the needs of their customers. Those who take the most innovative and creative approach to this process are succeeding at lightening speeds.

These innovations are a continuing process. The ways in which organizations utilize information is constantly being discovered. New rules are made every day.

Competition in the New Economy will still be based on value, but in the e-economy "value" means more than product price. Knowledge is value, and the Internet is the ultimate knowledge medium. It is an open marketplace, where customers can tell you what they want and need. (I want an apartment in Tucson that accepts pets and is within five miles of a park.) Customers utilizing the Internet have the power of knowledge, which comes from access to near perfect information. This means that to attract and retain customers, sellers need to build two-way relationships that deliver real value.

Businesses that adopt the Web, focus on the offering of a value product, and accept the shift of power to the users of their value are the ones that will succeed. This shift of power, by the way, includes not only of customers, but employees and partners and anyone else even remotely relevant to the business process. Those who are most innovative will stand out in the crowd.

New Organizational Structures. Now, for all this to happen, companies must change the habits of decades. In the Industrial Age, businesses grew accustomed to operating as big fish in small ponds. Corporate leaders thought, "We are the market-makers, creating the market for our product, so just keep manufacturing." In this paradigm, process and efficiency improvements yielded much higher returns than innovation in the business model.

The rise of e-commerce has reversed the old priorities. Today's intense competition and free flow of information make it increasingly difficult for a single firm to force its vision upon others; collaboration becomes essential. Therefore new organizational structures are proliferating. Today's structures allow "turn-on-a-dime" execution of business strategies, greater transparency of the supply chain, and broad data sharing—among supply chain partners, customers, and even competitors.

Affiliate programs are a perfect example of business model innovation. Using the expansive power of the Internet, a company can quickly and easily form relationships with hundreds, thousands, maybe millions of partners that will eagerly and successfully advertise and sell their products. This is a simple process. Yet, if included in the company's business model, it can increase sales tremendously.

These partnerships are made possible by the networking of the world. Each partner with a presence on the World Wide Web is only a click away. Each partner's effort to sell the company's product is minimal, the expense is practically zero; partners merely add a link on their Web site to their partner company's product page. Yet they gain the opportunity to receive a steady stream of revenue, a percentage of the sales originating at their Web site. Nothing in the traditional brick-and-mortar business world could be so easy and effective.

SpringStreet.com is also an excellent example of the leveraging of partners and resources available to networked companies. Reaching out onto the Internet, SpringStreet partners with such sites and services as moving companies, cleaning services, electricians, lawn care professionals, and other home-oriented businesses. The most valuable partner for me (aside from apartment leasing agencies) was petswelcome.com, which provided me with a list of pet-friendly hotels on each stop of my journey across the country to my newly leased apartment in Tucson.

SpringStreet.com leverages these partnerships to offer personalized service that would be impossible for an integrated company stuck in the world of conventional, non-e-commerce. The site has rent and cost-of-living calculators that compare costs between different locations. It offers a free change-of-address service that not only notifies the U.S. Post Office of your move, but takes the extra step to alert catalogs and magazines, newspapers, credit card companies, colleges, clubs, and other mailing institutions. Every few days while preparing for my journey, I would get a countdown of the number of days until my trip. Each e-mail would contain tips about packing, safety, and all sorts of useful subjects. SpringStreet is a model for the effective use of the Internet and Internet tools.

There are many such opportunities to use the power of computers and the Internet. To survive in a world of such agile, efficient competitors, an Industrial Age company must integrate them into its overall automation systems.

Another good example is in sales and customer service, or what the industry refers to as electronic customer relationship management (eCRM). Today it is possible to track your customers' activity throughout your Web site, interact with them in real-time, and tailor your approach to their activities. Let's say the customer indicates that she is looking for a baby stroller. However, when the sales rep reviews her activity on the site, he sees that she has been clicking on infant strollers. This clarifies her objective and makes for more efficient sales and service. This is just one of many ways in which Net-savvy marketers can collect and manipulate critical information from customers, employees, and partners, and thus improve customer relationships.

Think also about the traditional advertising model. Say that you are a frequent flyer on one of the major airlines, and each time you have flown, you have taken your two children under the age of 12. In the traditional model, the airline is likely to target you with specialized advertising for family travel and vacations. Using the Internet, that same airline can "push" that advertisement to anyone searching their Web site for a fare that includes children. Whether the airline knows your history or not, it can recognize your immediate needs in real time and try to meet them with promotions and incentives.

These Internet techniques represent a fundamental change in the company's business model. In the digital economy, shorter product life cycles and new, agile competitors make such innovations critical. Capital, brands, and processes no longer give the company power in the marketplace. Instead, the company's ability to turn on a dime and change its business model to fit the needs of e-customers has become the key to survival.

In the chapters ahead, the Prophets will show us many different opportunities to make the Internet work for your agile, networked business, whatever its level of funding.