BETWEEN THE LINES

TAPPING THE POTENTIAL OF 21ST CENTURY DOCUMENTS

JOHN M. KELLY

My efforts in writing this book have been guided by the real-world stories of Xerox clients around the globe. I would like to thank each of these organizations for their ongoing commitment and support. Your invaluable partnerships with Xerox enable us to continually share our passion and bring our strategic thinking to life. We are proud to aid in the management of your document production and processes, freeing you to focus on what you do best and value most—your core business and its customers.

John M. Kelly
Executive Vice President
Major Account Development for ACS, A Xerox Company

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Introduction

The *Forbes Book of Business Quotations* offers 14,173 thoughts on business and life. Not one of them is devoted to the document.

Yet history would be nothing more than a sequence of short-term memories if left undocumented from one era to the next. In fact, the history of human civilization is virtually inseparable from the history of the document.

The Rosetta Stone. The Magna Carta. The Declaration of Independence. Each illustrates the significant impact even a single document can have on a time period and its people.

Despite what the *Forbes* compilation might indicate, documents are no less important in the business world. (Not to mention the fact that *Forbes* itself would merely be an untested notion if Malcolm's dad hadn't brought it to life as a document.)

Global companies deal with billions of digital and paper documents every minute. These documents and their content directly impact every organizational activity every day.

Whether a business license, an email memo, a stock certificate or an online order form, documents continually move businesses forward while helping determine direction.

Yet regardless of their prevalence—or perhaps, because of their prevalence—documents are taken for granted. Their pervasiveness in the business field lands them squarely in the Dangerfield: they get no respect.

In a way, documents are like oxygen. They're essential to life, right under our noses and all around us. Yet who stops to notice the air?

For many businesses, documents are simply a routine tool, as common as pens, as expected as office chairs. It's not that documents aren't thought of as strategic business catalysts. It's that they aren't thought of at all. They just are.

It doesn't help that documents are viewed by many as static, 8½" x 11" paper sheets—even though the world is flooded with email messages, electronic bank statements, e-tickets, tweets, digital photos, electronic medical records, online applications, YouTube® videos, podcasts, PDF product instructions, Google listings, Apple iPad® forms and countless other variations on the same theme. Documents in the 21st century are no more a piece of paper than an "image" is a 4" x 6" print.

The goal of this book is to replace outdated perceptions about documents with an understanding of the critical role they play in the modern enterprise. In our 24/7 digital world, documents don't just support business activities, they drive them. They directly influence every issue that is top of mind with C-level executives: speed, revenue, brand value, productivity, security, compliance, cost reduction, even sustainability. And they have the power to transform entire organizations.

They also have the potential to work against you. Just ask any biomedical company that wasn't able to produce its FDA forms quickly enough. Or a law firm that failed to uncover vital documents during the discovery process. Or a government agency that didn't properly secure its confidential materials. Or a brand leader that struggled with the negative buzz of an embarrassing print error. Or any company dealing with the costs and inefficiencies of outdated document production methods.

Could the mortgage crisis have been averted if lenders and borrowers paid closer attention to their documents? Would the Bernie Madoff scandal have been nipped in the bud if investors had reviewed their statements more closely and noticed the suspicious dot matrix printing?

For good or bad, documents are the way we move through the digital world. Well managed documents—and the information and business intelligence they contain—can help move the needle on many top-level business priorities, often in surprising ways.

Yet documents remain one of the most underappreciated areas of value creation. Enterprise leaders readily accept the concept of an "information age," but frequently overlook the fact that information's primary habitat is the document. It's not an understatement to say we actually live in a "digital document age." And it's one where people are increasingly comfortable with creating, managing and sharing information in all document forms and formats.

What's more, the business impact of documents—positive and negative—is measurable. Time and again, Xerox clients have applied cost-benefit analysis to better understand the potential of their documents and document-centric processes. And to realize that potential. The real-world results shared in these pages, from those of Marriott and Lloyds Banking Group to Dow Chemical and the New York Mets, offer just a few examples of success.

Putting it bluntly, enterprises that fail to recognize the influence of documents in the 21st century are more likely to fail in general. However, those that leverage the value of documents while minimizing their associated costs and risks can move their business forward with newfound speed and efficiency.

"What are documents? They are, quite simply, talking things."

David M. Levy*

*David M. Levy, *Scrolling Forward: Making Sense of Documents in the Digital Age* (Arcade Publishing, 2001)

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A Short History of the World's Most Successful Communications Vehicle

The dividing line between history and prehistory is determined by one thing: writing. Where do you find writing? In documents—whether cave stones, papyrus or clusters of electronic signals.

In a very real sense, the earliest documents were Bronze Age business records. They replaced fallible human memory with a new means of preserving accounting information, locking it in a physical container. And they performed brilliantly.

But documents quickly assumed other important roles. As writing evolved from symbols and numbers into systems that emulated spoken language, documents became our representatives and agents—capturing the human voice, communicating information, establishing rules and regulations, providing education and pointing the way toward the future. In fact, the word "document" comes from the Latin root word docere, which means "to teach."

Of course, the nature of documents has changed many times over the millennia, reflecting important advancements in technology. But the role of documents has remained surprisingly immutable. They still help us:

- Remember
- Communicate
- Educate, direct and inspire
- Analyze information
- Think and invent
- Shape our future

In short, they help define who we are, while influencing what we will become.

Proof That Documents Can Change the World

A few years ago, the U.S. National Archives and Record Administration teamed up with *U.S. News & World Report*® and National History Day to identify the 100 milestone documents in U.S. history.[1]

Here's the top 10 list based on votes from almost 40,000 Americans:

- Declaration of Independence
- Constitution of the United States
- Bill of Rights
- Louisiana Purchase Treaty
- Emancipation Proclamation
- 19th Amendment: Women's Right to Vote
- 13th Amendment: Abolition of Slavery
- Gettysburg Address
- Civil Rights Act
- Social Security Act

In addition to treaties, court decisions and legislation, the rest of the list includes some unexpected treasures:

- Thomas Edison's patent application for the light bulb
- The Manhattan Project notebook
- The check for the purchase of Alaska
- The patent for the cotton gin
- The transcript of John Glenn's official communication with the NASA Command Center in 1962

Who is to say what might appear on the list 50 years from now? Emails between national leaders? WikiLeaks documents? The first Facebook® page?

Clearly, there is a strong connection between documents and history. But the role documents play is more than just record keeper. After all, many of the 100 milestone documents changed history. Michael Barone of *U.S. News and World Report* put it this way:

> It's not an exaggeration to say that without these seminal papers, our country might not exist—and certainly would not in its current form.[2]

Documents have had the same momentous impact on virtually every country and continent. Add up history's most important documents and you get a "big bang" effect.

"It is no accident that all our social institutions—including science, law and government, religion, education and the arts, commerce and administration—rely on the stabilizing power of documents to accomplish their ends," writes David Levy, a computer scientist and former staff member of the world-famous Palo Alto Research Center, in *Scrolling Forward: Making Sense of the Document in the Digital Age*.[3]

In fact, documents are so essential to human history that the United Nations Educational, Scientific and Cultural Organization (UNESCO) launched an international effort to preserve the world's document heritage in 1992.

UNESCO's ambitious Memory of the World project encompasses documents, photographs, maps and multimedia from dozens of countries. Its official register includes the writings of Simon Bolivar, the diaries of Anne Frank, the archives of the Hudson's Bay Company, traditional music from China, 19th century photographs from Latin America, and the Original Declaration of the Rights of Man and of the Citizens from France.

No doubt about it. Documents are intimately involved in every facet of civilization. Which means that that they are undeniably critical to business success.

Shaping the Modern Enterprise

Even in their earliest days, documents were business drivers. In fact, the company that is believed to be the world's oldest corporation, the copper mining firm Stora Kopparberg, came into existence in 1347 because of a document—a charter from Sweden's King Magnus IV.[4] And a royal charter in 1670 drove the incorporation of the aforementioned Hudson's Bay Company.[5]

Documents quickly moved from sanctioning companies to shaping them, evident in everything from the maps of the early fur traders to the first Articles of Incorporation. As distribution of printed materials became easier and cheaper, documents were readily—and deeply—integrated into all aspects of commercial operations.

Look behind any major business advancement in 19th and 20th century America and you'll uncover critical printed materials: The shares that funded the Baltimore & Ohio Railroad. The sewing patterns of New England's textile mills. The bill of sale that proved ownership of a Model T. The architectural drawings of early skyscrapers. The construction contract for ENIAC, the first general-purpose computer.

The growth of the modern enterprise would have been severely stunted without the ability to create, print and distribute documents, no matter how simple. Picture the expansion of American commerce without train schedules and tickets. Or the impact of Sears without the Sears Catalog. Or the success of the New York Stock Exchange without stock certificates. Or the expansion of Google® and Yahoo® without documents of any kind.

Once merely a testament to the existence of a commercial enterprise, documents are now virtually inseparable from businesses themselves, infiltrating all levels and functions. As a consequence, the opportunities they harbor can be leveraged enterprise-wide. If you know where to find them.

Endnotes

1. Michael Barone, "The People's Vote: 100 Documents that Shaped America," *U.S. News & World Report*, February 17, 2011
2. Ibid.
3. David Levy, *Scrolling Forward: Making Sense of the Document in the Digital Age* (Arcade Publishing, November 2001)
4. http://en.wikipedia.org/wiki/Stora_Enso
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The Hidden Potential of Enterprise Print Management

If you could view all your enterprise operations from a single vantage point, here's what you would see: policies and procedures. Memos and directives. Marketing and customer communications. Product documentation. Intellectual property. Litigation and compliance documents. Client onboarding forms. Human resource materials and all the transactional files involved in accounts payable and receivable.

And let's not forget your Microsoft PowerPoint® presentations, Web pages, blogs, podcasts, fax messages and the tsunami of email that surges in every day. Not to mention all those legacy file cabinets and archives bursting at the enterprise's seams.

Effortlessly woven into the way you work, these documents have a direct impact on every one of your major business goals. They:

- Convey strategy and direction
- Turn prospects into customers
- Motivate and educate
- Preserve intellectual property, records and data
- Generate revenue and pay invoices
- Help maintain compliance and manage risk
- Convert raw data into actionable information
- Provide support in the face of litigation
- Communicate to stakeholders
- Represent the face of your organization to the world

All in more ways than you can count.

A Vital Enterprise Infrastructure

At Xerox, 90 percent of our value chain's inputs and outputs are documents in many different forms. Loosely translated, that means almost everything we do involves documents at a key point in the process. Chances are, that's true of your organization as well.

When you consider the scale and scope of document-related activities, it's clear that documents, their content and their processes represent a vital enterprise infrastructure. It's equally apparent that if your document infrastructure is strategically managed, your business will benefit. This involves:

- Improving the effectiveness of key documents
- Increasing printing efficiencies throughout the enterprise
- Simplifying and/or enhancing key document-driven processes
- Using the latest innovations to tap into the vital organizational intelligence and information contained in your documents

At a time when organizations are fine-tuning their IT systems and manufacturing processes, enhancing the way you work with documents can provide one of the best opportunities for step-change improvements in performance.

The Myth of the Paperless Office

As a leading document and business outsourcing provider, Xerox has been able to collect more data about documents than many other organizations. We use Lean Six Sigma methodologies to help companies around the world analyze and assess their document management approach. This provides us with unique insights into the current state of document management and reveals compelling opportunities for improvement.

One of our most surprising findings is that despite the growing use of digital documents, businesses and other organizations continue to print hard copy materials at a remarkable rate.

In fact, one of our global telecommunications clients had been printing more than a billion pages a year for internal operations alone. That doesn't include the documents associated with their marketing and customer communication. Nor their daily email deluge.

These numbers are even more remarkable in the age of the paperless office. And they have major implications for organizational efficiency and the bottom line.

To generate that much printing, you need a vast fleet of color and black-and-white printers, copiers, fax machines, scanners and multifunction devices. Plus a freight train stuffed with paper, toner and supplies. You also have to provide service, support and an enormous amount of power.

And that's just the beginning. In fact, Xerox assessment experts have identified 150 factors that contribute to the total cost of enterprise printing. Unfortunately, most companies would have a hard time identifying more than a handful.

The Print Costs of Document Overload

Given the fragmented way that purchasing and management practices have evolved over time, it's no surprise that most organizations do not have a clear picture of their enterprise printing expenditures.

However, our experience enables us to provide a general idea of what's really happening and how much it's costing you. While the numbers vary considerably by organization and industry, here's a universal snapshot:

- The typical employee prints more than 800 pages each month or about 10,000 pages a year.[1]
- Each employee's monthly printing costs average about $42, which equals over $500 per employee per year.[2] That means if you have 2,000 employees, you may be spending over a million dollars on printed output annually.
- The trend toward digital documents is decreasing print volumes in some industries, but the decline is less than expected. And in some areas, like manufacturing, print volumes are actually increasing.[3]

No wonder audiences laughed with recognition during *Monsters, Inc*., when Roz continually admonished employees with a throaty, "You didn't file your paperwork."

Enterprise printing is clearly a big-ticket item for most organizations. In fact, InfoTrends estimates that companies spend an average of 6 percent of total annual revenues on document management.[4] Those expenditures are likely to continue for the foreseeable future.

Nevertheless, total printing costs can be significantly reduced with a disciplined, data-driven management effort. According to a Gartner, Inc. report, "Organizations that manage their printer, copier and fax fleets can save between 10 percent and 30 percent of their print costs."[5]

Whether you operate your own production centers, rely on outside printers or combine both approaches, your costs can be reduced and controlled with a sound enterprise printing strategy.

Of course, cost reduction is just one benefit. A well managed enterprise print infrastructure also ensures that your employees have access to the high-quality document services necessary for their work. It also lowers your organization's impact on the environment by rationalizing your printing infrastructure and reducing your consumption of paper, energy and supplies.

No question about it. Making the most of your enterprise printing yields valuable results and, in some cases, complete transformation.

Endnotes

1. EPS Assessment Practice, January 2011 (Assessment of 329,472 Office Personnel)
2. Ibid.
3. Ibid.
4. *Assessing and Benchmarking Document Costs*, InfoTrends, September 2005, http://www.infotrends.com/public/Content/INFOSTATS/Articles/2005/10.18.2005.html
5. Gartner, Inc., *MPS Magic Quadrant Report*, 8/21/09: ID G00169984

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The Search for Smarter Document Processes

Most business processes that revolve around documents were designed in the 20th century, where “documents” meant paper. These processes fail to maximize the use of digitization, automation, modernized workflows, business technologies and industry best practices.

That’s the problem side of the coin. Flip it and you’ll see the opportunity for improvement. If you use technology (and expertise) to bring document processes into the 21st century, you dramatically improve efficiency and cost-effectiveness. And because business processes touch multiple areas of your organization, your effort can have a striking impact. Here are three examples that prove the point.

Litigation and Discovery. Virtually every organization is affected by document-driven litigation proceedings at one time or another. And it’s no secret that delays or errors in producing case-related documents can have costly consequences.

Managing legal document demand is a challenge in the best of situations. But when you rely on hard-copy documents, you add another layer of complexity. It takes more time to retrieve, distribute, review and store information. It’s more difficult to maintain control. And mistakes and lost documents are more frequent. Which means the threat of fees, penalties and adverse outcomes continues to loom.

That’s not the case when you digitize the document-intensive aspects of litigation and discovery. Information is easier to locate, access, redact and produce. Document distribution and delivery are faster and more economical. Control improves, which means errors are minimized. And the attorney review process is accelerated because internal and external counsel can access documents at the same time.

These advancements, in turn, lead to dramatic improvements in cost, productivity and speed. Moving to digital documents also helps assure greater compliance and better risk management.

Financial Services. Documents are involved in hundreds of processes that help financial companies open customer accounts, manage records and perform other vital tasks. For example, our Lean Six Sigma experts once helped a banking client map out more than 80 discrete document-driven workflows related to records management alone.

When these processes revolve around paper, inefficiencies inevitably occur. But when they're reshaped with innovative document technologies and best practices, they can result in breakthrough performance. A leading wealth management client of ours witnessed this firsthand after streamlining its process for opening new accounts. A laborious five-day cycle was reduced to about two hours, enabling clients to invest and trade the day they signed the dotted line. The estimated additional revenue from the change? About $2 million per year.

Manufacturing. It's nearly impossible to launch new products without producing a barrage of marketing and technical documents for customers, salespeople, partners and service teams. This over reliance on paper documents adds time and money, which can be addressed by producing fewer pieces. But the real opportunity for improvement lies in the holistic transformation of document management in all its forms—creating, revising, translating, localizing, producing and distributing documents physically and digitally.

The benefits? Faster time to market, reduced costs, consistent quality, brand enhancement and improved compliance with the laws and regulations of a diverse global marketplace. All of which helps maximize new product opportunities around the world.

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The World of Dynamic Documents

All documents are not created equal.

Some are meant to serve as routine communication vehicles, produced and distributed as quickly and economically as possible. Others, such as those for prospects and customers, aspire to a higher purpose: to connect in a way that improves the bottom line.

In the market's eyes, these documents are your organization. Therefore, they must present you in the best possible light, regardless of whether their mission is to acquire new customers, build your brand, collect for a service, explain an account change, generate revenue or build customer loyalty. The question is, do they?

In far too many cases, documents fail to deliver. I'm not just referring to traditional direct mail, where response rates of 1 to 2 percent are considered a success. I'm also talking about emerging areas like digital direct marketing and social media, which CMOs are discovering can be as disappointing as they are enticing.

But there's an upside to document letdown—you can avoid it. Studies from a number of organizations, including Rochester Institute of Technology and PODi, the digital printing association, show that it's possible to increase the effectiveness of documents by a large margin, as high as a factor of 5x.[1]

The key is to make static documents more dynamic. Here are just a few of the definitions the Oxford College Dictionary ascribes to the word dynamic:

1. Characterized by constant change, activity or progress
2. Positive in attitude and full of energy and new ideas
3. Stimulating development

Dynamic documents are all of the above and more. In a sense, they remain fluid, changing and adapting to meet highly specific goals while continually presenting your enterprise at its best. Leading organizations are already making their documents more dynamic by employing techniques that include:

- Customized messages delivered via one-to-one marketing and technology
- Content design based on behavioral science insights

- Adaptation of content across multiple communication channels
- Disciplined, end-to-end program management based on continuous improvement

By taking a dynamic approach, you can use internal and external data to create customized offers that appeal to recipients on a personal level. You can also design documents to drive desired behaviors, such as expanding the customer base, cross-selling or reducing operational costs like support center calls.

But the greatest benefits come from building continuous document programs that span the life cycle of your customer relationships and draw upon every communication channel at your command: the Web, personalized URLs, mobile platforms, the mail stream. And so on.

With dynamic documents, each touchpoint is not an end in itself. Instead, it is a means of collecting more feedback and deepening customer insights so that the next round of communications becomes even more personalized and effective. As a consequence, you not only continue to get better results, but also realize a better return on your investment.

Endnotes

1. Romano & Brody, Digital Printing Council, www.gain.net

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The Liberation of Content

In the days of early civilization, the thing that made a document a document was its physical container. Information was locked in place, in some cases, for all time.

In the digital age, that definition is as outdated as stone tablets. Many modern documents never assume a physical form. Instead, they appear and disappear on computer screens, blinking lights in the cloud.

The content within these documents is also changing, thanks to powerful software that makes it easy to collaborate, create and revise. Some documents may only exist for a single viewing before information is altered or added, creating a new digital document in the process.

At the same time, technological advancements are eliminating the barriers between paper and digital documents, enabling content that has been “locked up” to become much more accessible. What’s more, an entire generation is moving into the workforce with an understanding of documents as free-flowing, shape-shifting digital playthings.

Changes like these are speeding the flow of information and improving the power of business intelligence. They’re also increasing the proliferation of documents. Because content is liberated, it can fly through a network with great ease, spawning an infinite number of new documents, including mosaics of preexisting document pieces.

Emerging technologies are pushing the liberation front even further. For example, instead of being limited to keyword searches, you’ll soon be able to use metadata and language processing advancements to quickly find relevant pieces of important information. Instead of launching an application to open a document, you’ll retrieve and repurpose content chunks with a few simple keystrokes, regardless of the program you’re in.

These tools are placing a heightened emphasis on the management of documents and their processes. Which brings us back to where we started.

Documents and their content play a vital role in the work you do every day. When you rethink the way you work with documents, you can begin to achieve just about every major goal on the enterprise agenda:

Increase speed and agility. Grow revenue and build long-term loyalty. Strengthen brand perception. Enhance employee productivity. Improve your approach to compliance and risk management. Reduce operational costs. And even advance the cause of sustainability.

Strategic document management can deliver concrete, measurable results in all of these areas—as you'll see in the examples and stories that follow.

“The obscure we see eventually. The completely obvious, it seems, takes longer.”

Edward R. Murrow

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The Power and Pitfalls of Speed

Time to market, Six Sigma "lean speed," just-in-time manufacturing. When it comes to driving business processes, enterprises around the world are continually hitting the accelerator.

But what good is velocity if you're heading in the wrong direction? The key to success isn't just speed, but speed and accuracy. Without precision and control, speed isn't progress, it's recklessness. And it can be destructive or, in the worse cases, deadly.

Imagine a global product launch where research, manufacturing and delivery are swift, but the product itself is built to the wrong specs. Or a utility company that is expanding into green energy guided by a catalog of outdated safety measures. Or a new car model that is rushed to market with a faulty braking system.

As enterprises in every industry feel the pressure to go further faster, the potential for costly errors grows significantly. Risk does, as well.

Few know this better than the masters of light speed at NASA. On December 11, 1998, NASA kicked off a new mission with the launch of the Mars Climate Orbiter. The Climate Orbiter sped toward the stars with the hopes of becoming the first interplanetary weather satellite and a communications relay for future Mars expeditions. But the Orbiter never orbited. On September 27, 1999, the $125 million spacecraft disappeared. No signal. No satellite.

A subsequent investigation revealed that the Orbiter's entry into the Mars atmosphere was too low, most likely causing the craft to burn. The reason for the disaster was a major disconnect—the project's contractors used English units of measure, not realizing that NASA relied on the metric system. The Orbiter's speed at the time of destruction? Approximately 9,840 miles per hour.[1]

Documents as a Business Accelerant

What do documents have to do with speed? Simply put, they're the pistons in the engine of today's enterprise. They can move you ahead, slow you down or force you to jam on the brakes.

Think about sales documents or new account applications. Patent filings or government approval forms. Accounts receivable or payable files. The list is virtually endless. If you don't achieve maximum velocity in the management of these high-volume documents, the complex business processes they support simply plod along. This suboptimal performance can put a sizable dent in your organizational efficiency and encourage your competition to race right by you.

What's more, if velocity isn't accompanied by accuracy, the consequences can be devastating. Would the Orbiter be circling Mars today if NASA and its contractor had more closely reviewed and managed the satellite's documents?

Document delays and inaccuracies can also hinder your pursuit of opportunities, which, when they knock, don't wait very long for someone to answer the door. In the worst cases, lumbering along can even cause your revenue to stall. If that sounds like an overstatement, consider the high-stakes world of Big Pharma.

The Side Effects of Poor Document Management in Pharma

In the pharmaceutical industry, it's fairly common to spend years developing a new drug. But before a pharmaceutical firm can recoup the first cent of its long-term, million-dollar investment, the organization has to submit a New Drug Application (NDA) to the FDA for review and approval. The approval process might also require a Center for Drug Evaluation and Research (CDR) Pediatric Use Supplement. Or a Transmittal of Advertisements and Promotional Labeling. Even a single NDA might include enough clinical and marketing information to fill FDA headquarters if printed as hard copy.

That means the pharma company has to pull together all the necessary information, validate content and ensure quality control every step of the way. Once that's done, the truckloads of relevant information have to be produced and delivered in the required regulatory format. ASAP.

Any mistakes or internal logjams can postpone or even jeopardize FDA approval, with potentially catastrophic financial consequences. In fact, even a single day's delay can cost millions in potential revenue. And who can measure the cost to a patient whose life might be saved by the belated therapy? Imagine if the world was still awaiting the arrival of the polio vaccine. Or if the approval of aspirin remained tangled in a web of document complexities.

So while Big Pharma's core business is clearly not document management, the process itself is integral to any pharmaceutical company—and critical to its success.

Greater Order in the Court: Litigation Document Management

Lawsuits present a similarly compelling need for document management. Litigation affects every organization today, and it revolves around documents. It's not unusual for millions of paper and digital pages—including hard-to-manage email messages—to be involved in a single case.

Take for example, the 2010 BP oil crisis in the Gulf of Mexico. According to the *Financial Times*, within five months of the incident, plaintiffs in the case were given access to more than 600,000 pages of related information, including 54,000 documents from BP alone.[2] And the case had barely begun.

Unfortunately, mountains of case-related materials have become the rule in litigation rather than the exception. Reviewing and organizing them is a Herculean task that can take months, if not years. Picture yourself in such a situation. First you have to search for all pertinent documents. Then you have to organize them, store them and share them with in-house and outside attorneys for their strategic input. Finally, you have to produce the documents in a timely manner to meet court-ordered deadlines—and you'd better have the right documents.

To give you an idea of how difficult this can be, here's a small portion of the document pile involved in the Enron case: board minutes, emails, executive employee agreements, insurance policies, letters, receipts, license agreements, memoranda, policy statements, consulting services agreements, personal calendars. And reams of everyday business correspondence. Add the case's legal documents—the complaints, examiner's reports, plea agreements, indictments—and the mountains of information quickly become the Himalayas.

Failure to comply with court-ordered document requests can lead to billion-dollar fines. Missing a deadline can be equally destructive, as it may mean missing your opportunity to win.

The most recent Fulbright & Jaworski survey of U.S./U.K. legal trends found that over a quarter of the responding companies had confronted lawsuits with potential exposure of $20 million or more over the previous 12 months. In addition, 93 percent of U.S. and 97 percent of U.K respondents said that they expect legal disputes to increase or remain the same in the coming year.[3]

Virtually any business, large or small, may suddenly find itself in the legal hot seat. That means companies in today's litigious world should not only be wondering, "Will it happen to us?" but also asking, "Will we be ready if it does?"

To Improve the Process, Transform the Document

The document management process in major litigation is so complex that mistakes and delays are commonplace. And costly. The longer the process takes, the more the client pays. Increasing the speed and efficiency of document management can increase the chances of a favorable outcome and decrease the expenses.

But where do you begin?

You can start by improving the documents themselves, converting paper-based files to digital files and storing them in a secure, centralized database. Should you be involved in litigation, attorneys and others can review critical documents in the database at the same time, shortening the discovery process and meeting deadlines with greater speed and accuracy. You'll also have greater control over document access, accumulating detailed information about document content and use.

Additional efficiencies can be gained via innovative new technologies like CategoriX. CategoriX classifies documents according to criteria established by the attorneys involved in a particular case. The lawyers review a small subset of the case's total document population to define parameters for classifying the entire population. The results are then used to "train" the system to automatically classify the remaining documents.

Consequently, attorneys dramatically reduce the number of documents they need to review manually, speeding up the process and trimming down the client invoice.

Of course, when document management isn't your core competence, developing and managing these capabilities can be a major challenge. That's why companies turn to document management outsourcing. Through such partnerships, companies can leverage best practices, the latest technology innovations and informed team members who focus on documents 24 hours a day.

Home Team Advantage: A Real Estate Success Story

Applying for a mortgage is another process that is largely defined—and delayed—by documents.

As every homeowner knows, buying a house or condo is a slow, tedious journey through a thicket of applications, W-2 forms, financial statements and other correspondence that must be carefully reviewed by buyers, banks, lawyers and armies of associates. Each unwieldy application file moves from one pair of hands to another in a time-consuming, sequential process, like a relay race where everyone is encouraged to set their own pace.

With each passing of the baton, the potential for losing or misplacing information grows. So does the possibility of errors. This makes a slow process even more laborious and exposes companies to the threat of significant fines.

But what if the documents were e-files stored in a secure digital repository? Information would be locked in place and document handoffs would be as easy as hitting Send. Multiple versions of a document would be tightly controlled. Errors would be minimized. And files would be prevented from tumbling into black holes.

In addition, because e-files reside in a centralized database, they can be simultaneously accessed by all who need them. Document usage can be readily monitored and managed, so that people review only what they are authorized to see. And technology tools like collaborative software can be implemented to accelerate the process further. This is true not only for mortgage firms, but for any application-intensive business.

What was once a sluggish, step-by-step, paper-based process can become a swift, accurate workflow enriched with greater collaboration and control.

Consider the document management solution of the Trident Group, an affiliate of Prudential Fox and Roach Realtors (PFRR), the sixth largest real estate company in the United States. Trident prides itself on being a one-stop shop for high-quality mortgage financing, title insurance and property and casualty coverage.

Being one of the best, however, means being one of the busiest—which means being buried in paper. (In fact, the mortgage group used to have monthly “basement days” where employees organized boxes of files for shipment to a storage facility, at a cost of $50,000 a year.)

Using BlitzDocs® collaborative software, Trident completely revamped the way it processed mortgage applications. The company’s paper-based document management practice was fully reengineered as a digital one. Today at Trident, brokers, originators, underwriters and other authorized participants have controlled access to mortgage application e-files, and can simultaneously review and manage them online.

The company also integrated the BlitzDocs system with its mortgage supply chain software. This synthesis streamlined data validation and reduced the number of keystrokes required to process an application.

As a consequence, Trident has modernized its entire mortgage process, from origination and underwriting to due diligence and closing. Decisions are now made more quickly and loans are cleared with fewer delays, inaccuracies and obstacles. What’s more, lengthy file hunts are a thing of the past.

According to Christopher Rosati, Trident’s senior vice president and chief operating officer, employees would sometimes spend 30 minutes searching for a file. Multiply 30 by hundreds of mortgage specialists and you end up with a considerable amount of hours that are now dedicated to processing applications, rather than pursuing them.

Equally important, Trident has reduced its paper and toner usage by 60 percent and has eliminated substantial overnight delivery charges. So the company not only expedited a central business process, but also shed a fair amount of complexity and cost.

Documents and the Foreclosure Fiasco

One of the most alarming examples of reckless document speed can be found buried in the rubble of the recent mortgage crisis.

Virtually every root cause of the crisis is grounded in accelerated document mismanagement: loans quickly approved without a thorough review of financial documentation, "robo-signers" pushing through a torrent of forms with inaccurate or insufficient data, and the finger-pointing fiasco surrounding the foreclosures themselves.

Allegations of dysfunctional paperwork procedures—including improper transfer of mortgages during securitization—forced major banks to halt foreclosures, resulting in an outpouring of questions around mortgage ownership.

As Adam Levitin, associate professor of law at Georgetown University, explained to the House Financial Services Committee:

> If mortgages were not properly transferred in the securitization process, then mortgage-backed securities would in fact not be backed by any mortgages whatsoever.[4]

Should banks end up owning millions of bad mortgage loans they thought were transferred to trusts, the resulting losses could be in the billions. And the impact on investors and the financial system would be devastating.

That explains why a game of financial hot potato quickly took hold, with each player tossing responsibility to the other. Furthermore, the muddle led to legal proceedings such as the New Jersey-Countrywide case and the Florida Attorney General's investigation into several foreclosure-related law firms.

While it is impossible to predict the ultimate cost of such litigation, a report released by the Congressional Oversight Panel estimated damages in the area of $52 billion.[5]

So where does the blame lie? In greed? In speed? In both? One answer might be found in a *Wall Street Journal* article covering the Florida AG investigation:

> In the deposition, the employee alleged the firm routinely forged notarized documents amid closed-door screaming matches that broke out because files weren't moved fast enough.[6]

If true—and even worse, if typical—then one reason we have arrived at the worst financial crisis since the Depression may be that we rushed along the way.

How Centralization Can Hasten Global Efforts

Let's move beyond the worlds of real estate and litigation to the world at large—the bustling global marketplace.

There are more growth opportunities outside your home turf than ever before. To capitalize on them, you have to reach people who speak many different languages and follow diverse customs, laws and rules. That means producing, translating and localizing all of your product- or service-related documentation in time for each market launch. In fact, you probably won't be able to sell your new product or service until your marketing, sales support and technical documents are ready.

Inefficiencies or quality-control problems at any step in the documentation process can slow you down considerably. Reengineering the process to maximize the reuse of content can accelerate your globalization efforts and allow you to launch products in multiple markets at the same time.

The concept is surprisingly straightforward. You create, translate and localize content, then store it in a centralized digital repository. This allows "chunks" of content to be reused in multiple documents instead of being recreated for different audiences. Production is streamlined and greater consistency is ensured. Additionally, the complex task of managing revisions is simplified, since even a minor update by a single user is immediately available to all.

Consider the impact of centralizing just one component of a product launch—for example, a user guide for a new laptop. One client of ours meets this challenge by managing the creation, translation and printing of 200 user guides in 26 different languages from a single site. Here's a typical scenario for one of the client's European launches:

The race to bring a new laptop to market is on. Time is of the essence. The client's major production facilities begin to gear up. Miles away, the company's document center team is managing the development of the laptop's user guide. Guide content is being written in—or translated into—the appropriate language, then designed and stored electronically.

Each manufacturing site orders its guides online via SAP and email. Once the orders have been approved, authorized print offices access the order information and electronic print files from a central database. The manuals are quickly printed, then delivered to a warehouse. Shortly before the laptop boxes rumble off the production line, the guides arrive and are popped inside. Just-in-time manuals for just-in-time manufacturing.

This visionary technology leader reworked its entire document life cycle, from creation and production to inventory and delivery. Unnecessary delays have been engineered out of the process, new controls and efficiencies built in. Content is being updated at the last minute to address changes in product specs. Translations are being managed as needed. And the data chunks mentioned earlier remain readily accessible—before, during and after a launch.

Equally important, these enhancements allowed the company to shave 25 percent off its production costs in the first year alone. Another Xerox client, the Italian motorcycle leader Ducati, achieved similar efficiencies (see “Ducati Puts Documents on the Fast Track,” below).

When you combine a centralized document approach with best practices, innovative content management, advanced translation technologies and networks of translation and localization specialists, you speed up the development of high-quality product-related documentation for a global marketplace. That in turn, helps you accelerate time to market, launch in multiple markets at the same time … and maximize revenue opportunities around the world.

Ducati Puts Documents on the Fast Track

Ducati Motor Holding had reached a roadblock. Its motorcycle production was picking up speed, growing from 12,000 to 41,000 bikes in just a few years. But the company’s user manuals and other documents were lagging behind.

Content was quickly obsolete. The processes for creating and delivering content were cumbersome and unnecessarily expensive. Time to shift gears.

Ducati conducted an enterprise-wide analysis of its documentation from concept to completion. Guided by the data, Ducati implemented a new streamlined process for authoring, designing, translating and delivering documents. Forms were redesigned and new capabilities, such as one-to-one marketing, were introduced.

In addition, the array of office equipment scattered throughout the enterprise was consolidated, then complemented by more efficient document management. Today, Ducati’s document content stays current and user manuals are produced in a day, rather than two weeks. The company has also driven down printing costs by up to 23 percent. Which proves that Ducati is clearly heading in the right direction.

Two Companies in Good Form

Another illustration of fast, effective document management can be found in the workflow of a Xerox client who delivers health benefits to 75 million people worldwide.

In the mid-2000s, the company faced an enormous challenge in the literal and figurative form of Medicare Part D. Part D provides prescription drug insurance to U.S. seniors and was scheduled to go into effect on January 1, 2006. All eligible beneficiaries in the client's network had to be informed about the new coverage and, if interested, enrolled.

It was a daunting task, compounded by the fact that the company serves more than one-fifth of all Medicare recipients. The tight time frame and rigid deadline intensified the pressure. At the same time, the company was eager to simplify its Medicare Advantage enrollment procedures. So they outsourced the entire enrollment process, where it was reengineered to include advanced imaging technology and a streamlined workflow. The enrollment period soon shrank from a maximum of seven days to less than three.

Enrollment time decreased even further when additional efficiencies were implemented at an off-site Xerox Center of Excellence. Today, applications are processed within 24 hours and processing costs are 35 percent lower.

Comparable gains were realized by an international shipping company that partnered with our ACS team. While this major player was known for its fast delivery of packages worldwide, its document processing cycles were struggling to keep up.

The client employed multinational scanning facilities to digitize a wide variety of multilingual, hard-copy shipping documents. The company's slow, batch-based process was reborn as a real-time, transaction-based workflow with more efficient data capture, processing and archiving. Turnaround times dwindled from six hours to seven minutes. And processing cycles that used to hit speed bumps now propel the company toward success.

5 Questions to Help You Get Up to Speed

If you're wondering whether better document management would matter to your business, look across your enterprise and identify areas where getting an answer faster or having information more quickly would offer quantifiable benefits: a product launch, a public works project, a sales campaign. Then take your analysis further by answering five key questions:

- Which critical documents need to be 100 percent accurate and on time for your business to meet its goals?
- Do your documents include rich content that requires rapid and/or shared access, use, review, etc.?
- Do you work with multiple third parties or external contributors who create, review, revise and/or collaborate on documents?
- What are the risks of mismanaging or delaying your documents (e.g., fines, penalties, lawsuits, lost revenue)?
- Would there be material benefit in streamlining your document process(es) by a month or more?

Your answers can help clarify the true purpose of your documents and even suggest processes that might have a need for speed. They may also reveal your initial areas of opportunity. By building on these starting points, you can employ accelerated, accurate document management to minimize your slowdowns and increase your momentum in a world that never stands still.

At a recent Xerox conference, one of the analysts in attendance approached guest speaker Tom Seaver with a question about speed. The analyst asked the legendary baseball pitcher how hard he threw the ball in his prime. The Mets Hall of Famer scowled and replied, "There are three important things about pitching—and yes, velocity is one, but location, and the ball's movement are the others, and speed is the least important."[7]

In short, speed without focus and control is worthless. But speed guided by both can mean the difference between racing ahead in a crowded, competitive field, and squinting at the heels of your rivals through a growing cloud of dust.

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7

Revenue: The Next Generation

To create a customer.

That's the explicit purpose of every business, according to management guru Peter Drucker.[1] How do you do it? By convincing prospects that your product or service will help them achieve their goals.

In an ideal world, you could send your best sales representative around the globe to spread the word. But in the real world, that tactic falls somewhere between impractical and impossible, not to mention immeasurably expensive.

So instead, you create what David Levy, a leading information management scientist, calls "talking things"—documents that deliver your messages and speak on your behalf.[2]

Unfortunately, these documents don't always communicate correctly. Or harmoniously. Or in a voice that prospects find engaging.

They fly through the mail and over the Internet every day, yet documents are often meager stand-ins for gifted and insightful salespeople. Many documents come across as self-absorbed and ignorant of customer requirements. Others show up at the door wearing the communications equivalent of wrinkled hand-me-downs. Still others appear wholly uninterested in their audience, all but stifling a yawn.

Consequently, tools that should create customers begin to alienate them. Prospects reject your offer, sign with a competitor or, in the case of existing customers, jump ship. And that means lost revenue.

ROI That's MIA

Although the chief marketing officers we meet represent diverse industries, they initially express a common complaint: Their marketing efforts aren't generating significant ROI.

According to a *BrandWeek* article, even the shiniest tools in the marketing toolbox—social media and digital direct marketing—aren't making CMOs smile.[3] The bottom line? Companies are investing heavily to increase sales, but end up increasing frustration instead.

There are a number of reasons for this stressful underperformance, from advertising clutter and information overload to media fragmentation and intense global competition. Many of them are out of your control. However, there is something you can do. You can improve the effectiveness of your documents and make them work together more efficiently.

It helps to think of each prospect or customer document as a sales representative. As with any rep, your documents must not only have the right information, but must present it in a way that is clear, consistent and relevant to customers. Only then can these “talking things” begin speaking in way that turns potential into profit.

Making Direct Marketing More Direct

Take for example, direct mail. The Direct Marketing Association states that the average response rate for a direct mail campaign ranges from 1.65 percent to 3.86 percent.[4] These numbers may not appear to be impressive, but they represent a de facto industry standard.

For some companies, that standard is not enough. Innovative enterprises around the world are discovering ways to make long-standing direct marketing benchmarks seem like starting points. How? By implementing marketing approaches that boost the effectiveness of mailings and supersize their outcomes.

Target is one such company. Using XMPie® variable data printing, this retail giant turned a static coupon mailer into a highly relevant, high-draw document. The coupon was redesigned to incorporate up to 20 variable components. The components were mixed and matched in a meaningful way for each recipient. For example, the coupon’s incentives were based on each customer’s unique purchasing history. Due to these changes, Target increased its response rate by 50 percent. Equally important, although the coupon grew in complexity, by bringing the project inhouse, Target decreased operational costs by 30 percent. Target was able to aim with greater accuracy and hit multiple bull’s-eyes—all while slicing expenses.

There are countless examples of similar direct marketing successes. PODi, the digital printing initiative, maintains a database of case studies that can be extremely informative (www.podi.com), as does Peppers & Rogers (www.1to1.com). These stories reflect a common theme—the smarter the document, the stronger the revenue. While there are many forces driving these achievements, the three that follow are at the top of the list.

Revenue Driver #1: Making Messages Relevant

A few years ago, researchers at the Rochester Institute of Technology tested the impact of personalization, color and one-to-one content on direct mail response rates. Basic personalization boosted response rates by 44 percent. When color complemented the personalization, the rates increased by 135 percent. When relevant, one-to-one content joined the mix, the numbers soared by over 500 percent.[5]

Why the startling leap? While personalization and relevant content may seem similar, they are distinctly different tools. Anyone who has received a direct mail letter bearing his or her name has experienced personalization. But relevant content moves beyond name-dropping. It involves communicating one-to-one as if conversing with someone you know. It's not "A special offer for Bob!" It's "A special offer that you and your three daughters will love!" In short, it's the difference between a monogrammed pocket and a custom-made shirt.

In the book *The Trusted Advisor*, David H. Maister and his co-authors list the common attributes of the most trustworthy customer partners.[6] The number 1 trait is "a predilection to focus on the client, rather than themselves." Number 2 expands on the idea: a "focus on the client as an individual, not as a person fulfilling a role." Relevant document content can help with both.

This rapidly evolving marketing discipline offers tremendous potential for building trust while increasing response rates and driving revenue growth across all channels—traditional direct mail, email campaigns, social media, viral videos and whatever new communication tool is emerging as you read this. Yet while relevancy clearly works, it can be arduous to achieve, particularly without the help of external experts.

You have to gather, mine and analyze the right data. Segment your audience. Examine prospect/customer behaviors and histories. And ultimately? You have to make the right offer in the right way to the right person at the right time. But when it's done right, as Target and others have proven, it's hard to go wrong.

Revenue Driver #2: Engineering for Maximum Impact

Take a look at the development process behind many documents today:

At the start of a project, writers and designers soak up information about markets, competitive products and prospect demographics. Then focus groups, clients, account teams, creative directors and other voices chime in. Depending on the document, the result is likely to be a marvel of creativity. But all too often it fails to move the needle or deliver predictable responsiveness.

To remedy the situation, Xerox advocates a new paradigm: document development based on science more than art. In other words, a process where subjectivity is minimized and documents are engineered to achieve specific goals.

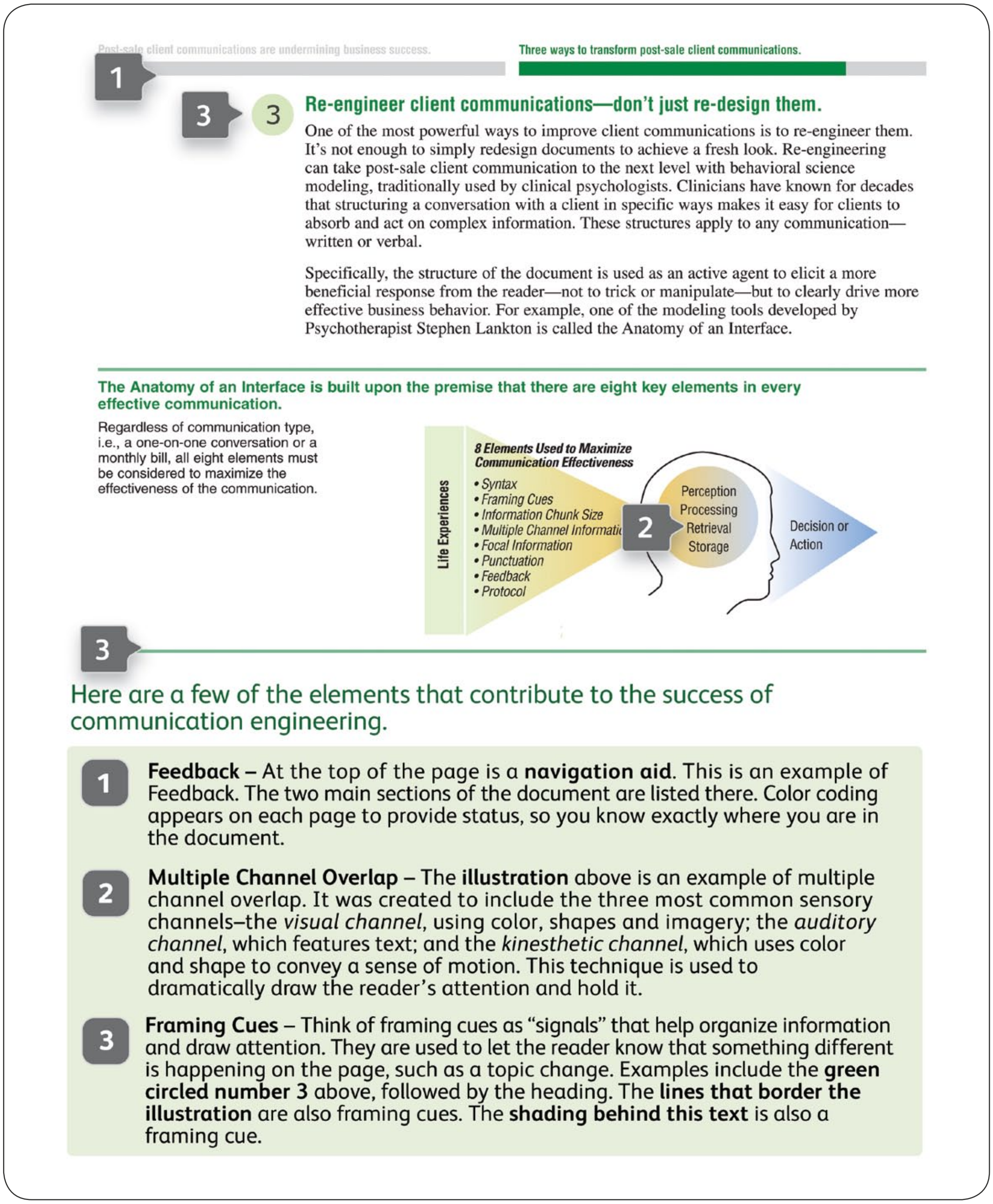
Let's use the design of a bridge as an analogy. Before an engineer clicks on the first CAD screen, he or she carefully assesses a variety of factors such as wind conditions, soil composition and traffic expectations. Only after analyzing the data does the engineer design a stable, aerodynamic structure that can carry the predetermined load under highly specific circumstances.

Are aesthetics a vital part of the engineer's development process? Anyone who has viewed Florida's water-skimming Seven Mile Bridge or stood beneath the Golden Gate Bridge knows the answer is yes. But the process itself is not founded upon—nor steered by—subjectivity and creativity. It is a disciplined, data-driven approach based on a clear-cut understanding of geography, science and client goals.

Communication engineering follows a similar path. It is grounded in the analysis of client objectives, content requirements, market interest levels and the communications environment. "Document engineers" draw on behavioral science principles to develop text and graphics in a specific, methodical way. When they're done, they too have created a bridge—one between an enterprise and its market.

Keep in mind that communication engineering is not mere document redesign. It applies the science of communication effectiveness to the structure, organization and design of document content. The sidebar on the next page helps illustrate the concept:

Applying Communication Engineering


Post-sale client communications are undermining business success.

Three ways to transform post-sale client communications.

1

3

3 **Re-engineer client communications—don't just re-design them.**

One of the most powerful ways to improve client communications is to re-engineer them. It's not enough to simply redesign documents to achieve a fresh look. Re-engineering can take post-sale client communication to the next level with behavioral science modeling, traditionally used by clinical psychologists. Clinicians have known for decades that structuring a conversation with a client in specific ways makes it easy for clients to absorb and act on complex information. These structures apply to any communication—written or verbal.

Specifically, the structure of the document is used as an active agent to elicit a more beneficial response from the reader—not to trick or manipulate—but to clearly drive more effective business behavior. For example, one of the modeling tools developed by Psychotherapist Stephen Lankton is called the Anatomy of an Interface.

The Anatomy of an Interface is built upon the premise that there are eight key elements in every effective communication.

Regardless of communication type, i.e., a one-on-one conversation or a monthly bill, all eight elements must be considered to maximize the effectiveness of the communication.

3

Here are a few of the elements that contribute to the success of communication engineering.

1 **Feedback –** At the top of the page is a **navigation aid**. This is an example of Feedback. The two main sections of the document are listed there. Color coding appears on each page to provide status, so you know exactly where you are in the document.

2 **Multiple Channel Overlap –** The **illustration** above is an example of multiple channel overlap. It was created to include the three most common sensory channels–the *visual channel*, using color, shapes and imagery; the *auditory channel*, which features text; and the *kinesthetic channel*, which uses color and shape to convey a sense of motion. This technique is used to dramatically draw the reader's attention and hold it.

3 **Framing Cues** – Think of framing cues as "signals" that help organize information and draw attention. They are used to let the reader know that something different is happening on the page, such as a topic change. Examples include the **green circled number 3** above, followed by the heading. The **lines that border the illustration** are also framing cues. The **shading behind this text** is also a framing cue.

In minimizing subjectivity, communication engineering maximizes predictability and effectiveness. The message gets through. Recipients are motivated to take the desired action. And ROI starts to grow.

Revenue Driver #3: Building Loyalty

In his best-selling book, *Loyalty Rules*, Frederick Reichheld states that a 5 percent increase in customer retention can increase profits by 25 percent to 95 percent. If, as an example, a credit card company were to increase its customer retention rate from 90 percent to 95 percent, total lifetime profits from a typical client will grow, on average, by 75 percent.[7] A Peppers & Rogers Group report reinforces the point:

> As reported in the *European Journal of Marketing*, loyal customers are overwhelmingly more profitable, not only because they buy more, but also … because their cost-to-serve is less. Loyal customers are also a company's most productive marketing channel, because they provide authentic word-of-mouth referrals and serve as trustworthy advocates of the brand.[8]

Not all customers offer the same potential value, of course. Therefore, the goal is to increase loyalty among the most profitable customers. This not only contributes to revenue, but also lowers costs—it's cheaper to mine the potential of a current customer than to unearth a new one.

Perhaps that's why customer loyalty programs are sprouting like wildflowers across today's business landscape. Yet, amidst all the buzz around customer retention, a CMO Council report revealed that over 76 percent of senior-level marketers are not "realizing the full potential of their customer base."[9] Unfortunately, a tool that is ideal for the job—the document—is significantly underutilized or, even worse, overlooked completely.

Take a minute to view a typical business relationship from the customer's perspective. When the courting begins, customers are wooed with high-quality, splashy marketing communications that say, "We care about you. We understand your needs. Our outstanding products and services can help you achieve your goals."

Once the engagement takes place, however, documents begin whispering a different message. One along the lines of, "Now that you're a customer, we can pretty much take you for granted."

Why the sudden change in tenor and tone? For one, the responsibility of customer communication passes internally from marketing to operations. For another, post-acquisition documents are often viewed as an operational cost, which invites budget cuts and encourages lower quality work.

Therefore, post-acquisition communications are likely to be unimpressive and ineffective. They fail to build strong, lasting relationships and undercut efforts to cross-sell and up-sell. These flawed documents not only represent missed opportunities to generate revenue, but can also undermine success.

What's more, they can be vague or confusing. And what do confused customers do? They call customer service. So the "economical" document ends up being anything but. (One unfortunate insurer we know mailed 5,000 "low-cost" letters and found itself fielding over 3,000 baffled callers.) No one wins. The customer is displeased. The service rep is grumpy from repeating the same explanation. And the call center's budget director is perhaps unhappiest of all.

The first step toward rectifying this situation is to recognize it. The documents you send to customers—at any stage, in any form—have an indelible impact on the overall quality of their experience. That affects your most prized asset—the relationship itself. The stronger your customer relationships, the greater the loyalty. The greater the loyalty, the more robust your revenue potential.

Making the MOST of Your Documents' Revenue Potential

There are many ways to maximize the revenue-driving potential of physical and digital documents. I've boiled it down to four strategic approaches that can help you make the MOST of these critical tools.

Mind-set—Consider all communications, whether to prospects or existing customers, as marketing communications.

One-to-One—Leverage the power of customization and relevancy in your pre- and post-sale communications.

Sustain—Create a conversation that begins prior to acquisition and continues throughout the life of the relationship.

Transpromo—Turn transactional documents, like invoices, into high-powered promotional vehicles.

Let me briefly elaborate.

M—Mind-set

Companies like Target offer a good example of what can happen when a functional document is viewed as a marketing tool. This mind-set can serve any organization well. But first, the organization must remove the cost-center blinders that curtail its view of documents.

Customer communications should no longer be perceived as sales versus support or as marketing versus operational. Dividing lines should be eliminated and all points of customer contact should be considered marketing communications. Easier said than done, for sure. But thinking about your communications in a new way—as revenue-driving relationship builders—can yield tremendous results.

O—One-to-One

Once the perception of customer communication is upgraded from a cost center to an engine of growth, investing in relevant, one-to-one content makes complete business sense. After all, revenue growth is based on meeting short- and long-term customer needs. What better way to start than by demonstrating you actually understand those needs?

In fact, an InfoTrends study revealed that almost two-thirds of direct mail recipients preferred customer statements that included highly relevant, personalized offers to those that were accompanied by separate advertising inserts.[10]

While one-to-one communication may appear daunting, a good number of companies are already partway there: Their databases are packed with valuable customer information. This information can be combined with other internal and external data to craft documents that are highly meaningful to target audiences and ultimately profitable for the enterprise.

A program recently undertaken by NJPAC, the New Jersey Performing Arts Center, offers a great example. Like most arts organizations, NJPAC was facing the threat of declining audience members due to challenging financial times. The number of subscriptions had begun to fall and those who did subscribe were starting to attend fewer performances.

Rather than wait in the wings, NJPAC adhered to Shakespeare's belief that "action is eloquence." The company introduced a one-to-one communications program that placed the likes and interests of its customers at center stage. And the early reviews are extremely promising.

S—Sustain

No relationship can succeed when one of the participants stops talking. Yet that's essentially what happens in many business relationships. The enthusiastic communication that kicks off the customer relationship trickles to a silence, broken by the occasional plea for payment or requisite product notice.

Consider this alternative: an ongoing, multichannel conversation that begins prior to acquisition, continues during onboarding and extends through the life of the relationship. In other words, all your pre- and post-sale touchpoints—direct mail, email, invoices, websites, personalized URLs (PURLs), statement stuffers, social media, viral videos, etc.—are united as a single customer communication process.

This integrated, big picture approach can help you deliver a consistent, high-quality customer experience, regardless of format or channel. It also offers opportunities to cross-sell and up-sell, as well as to improve customer retention and brand value. Additionally, relevant documents can be used to collect customer feedback, generating insights to keep your future messages pertinent.

T—Transpromo

All too often, companies disregard one of the most invaluable customer communication tools—transactional documents such as invoices and customer statements. According to InfoTrends, nearly 32 billion of these business-as-usual documents are distributed each year in the United States alone. Typical readership rates? An astounding 95 percent in North America and over 98 percent in Western Europe. That's more than 10 times the rate of direct mail. And the average reading time is three to four minutes.[11] Yet, these 32 billion customer touchpoints are virtually shunned as marketing opportunities.

With one-to-one marketing and communication engineering, you can turn these documents into a dynamic form of communication called "transpromo"—transactional and promotional content integrated in a single document. With transpromo, your documents don't just request payment or provide account updates. They also include highly relevant information and offers. Consequently, customers are more likely to engage in a conversation about buying additional products or services.

In one well known case, Best Western used the power of transpromo documents to increase revenues by 30 percent and boost ROI even more.[12] In another, Humana reengineered its benefits statement to include extensive customized information, resulting in an award-winning document that increased customer retention by 17 percent.[13]

Some transpromo adopters go so far as to sell ad space to other companies. Case in point—a bank in Israel that included ads from a local retailer on its customer statements. The bank generated significant ad revenue; the retailer gained $2 million via a remarkable 44 percent response rate.[14]

As Eric Clapton sings, "It's in the way that you use it." When you witness the way visionary companies employ "basic" communications to drive revenue, it's not surprising to learn that InfoTrends projects 48.5 percent compounded annual growth in transpromo, from 3.8 billion impressions in 2009 to 27.5 billion in 2013.[15] Transpromo documents offer an opportunity to place key messages in customers' hands. Savvy companies are making sure the opportunity doesn't slip through theirs.

Making the Most of Your Documents' Revenue Potential

M **Mind–set**	O **One–to–one**	S **Sustain**	T **Transpromo**
Consider all communications marketing communications	Leverage customization and relevancy	Continue the conversation through the life of the relationship	Turn transcactional documents into promotional vehicles

The Challenges of Meaningful Communication

So why isn't every company making the MOST of its document management process? And why, more often than not, are the three revenue drivers discussed earlier idling in neutral or even worse, stuck in reverse?

The previously mentioned CMO Council survey provides a clue to the answer:

> Marketers felt that their lack of real-time data and analytics was a critical roadblock to having customer insights into customer retention, profitability and lifetime value. While customer data continued to remain in functional silos spread across the organization, marketing found that what data was accessible was often incomplete and inaccurate.[16]

In other words, the vision of a meaningful, sustained customer conversation is blocked by logistical obstacles. This is a very real problem, because the logistics are complicated. In fact, Xerox research reveals that there are at least 30 distinct steps in a true, multichannel, one-to-one campaign. These steps range from strategy development and data management to cross-media delivery, response measurement and campaign analytics.

Few companies have the in-house expertise to manage this communications spectrum efficiently and cost-effectively, particularly as budgets get tighter. That's why many look outside the organization for a strategic partner.

Here are three innovators who are drawing on outsourcing to improve their customer communication process and, as a consequence, are increasing revenue.

The City of Cleveland—Bringing Revenue up to Speed

Cleveland's traffic cameras capture potential driver infractions with great speed and accuracy. In its initial implementation, the program was completely separate from the city's parking enforcement system. Two parallel, one-way streets. But Cleveland soon merged the processes and paperwork. The result? Motorists now inquire about, dispute and pay their parking and moving violations using a single system, regardless of whether the driver is online, on-site, on the phone or using U.S. mail.

Hard-copy correspondence for both programs is scanned into the same central database, where it is accessed in real-time by authorized city, court, police and contractor staff. This has not only led to streamlined services for Cleveland's drivers, but also to higher ticket revenue. Each program increased its collection rates by approximately 70 percent. Now, Cleveland's tickets are processed with fewer roadblocks and its citizens no longer get caught in online traffic jams.

Scottish Widows—Better Service = Greater Revenue Potential

In 1812, a small group of eminent Scotsmen met in a coffee house to discuss establishing, "a general fund for securing provisions to widows, sisters and other females." By the time the men relinquished their empty cups, Scotland's first mutual life office, the Scottish Widows Fund Life Assurance Society, was born.

Today, Scottish Widows is a leading financial services firm that offers life assurance, pensions, savings and investment products. A division of the renowned Lloyds Banking Group, the company retains its revenue edge, in part, through one-to-one marketing communications delivered via cost-effective document production.

We work in close partnership with Scottish Widows to manage the company's seamless end-to-end workflow for marketing and customer documents. This involves the creation, design, printing, distribution, storage and logistics of approximately 1,600 projects at any one time. In many cases, data is pulled from disparate IT systems to produce personalized materials that speak to customers as individuals.

In short, we focus on the documents so that the company's employees can focus on customers. Says John Arthur, Scottish Widows Client Relationship Manager, "We have five or six different workstreams and over 75 to 80 individual service labels that we continually measure and monitor. [We] give our customers an opportunity and a chance to feedback on where we do really well and areas that they think maybe we could expand our services or improve."

By learning more about customer needs, Scottish Widows is better positioned to provide revenue-generating services that meet them. Or, to quote one of the company's first customers, Sir Walter Scott, Scottish Widows is abiding by a "six word formula for success: Think things through—then follow through."

Imagine if every business did.

McGraw-Hill Construction—Building a Smarter Solution

McGraw-Hill Construction is the leading provider of information and data resources to the $4.6 trillion construction industry. A few years ago, the company's MHS Dodge division decided to change the way it added new architectural plans, specs and other construction-related materials to its vast subscriber database.

At the time, employees in five geographically dispersed imaging facilities digitized hard copy documents by scanning each document twice—once for microfilm, once for a digital image file. Not an easy task, especially when you're updating 65,000 projects a day. Tim Ryan, the company's senior vice president of operations, captured the challenge succinctly:

> It's not easy to take millions of documents, scan them, keep them all together, index them for keyword searches and then transmit them to different locations and different databases at the same time for repurposing into different media.

McGraw-Hill knew they needed to build a better solution. And they did. The company consolidated its regional imaging operations into an off-site center of excellence, introducing new efficiencies into the document conversion process. In addition, they called on Xerox to provide print production, fulfillment, CD-ROM production and data delivery services.

New content is now available to subscribers within 24 hours and the amount of available data has increased substantially. Furthermore, technologies like Optical Character Recognition and data mining make it possible for subscribers to find highly specific information. As an outgrowth of this solution, McGraw-Hill has also introduced new information "packages" that are generating additional revenue streams.

Turning Documents into Revenue Generators

When all is said and done, the "documents equal revenue" message is fairly simple: Ineffective communication leaves significant revenue on the table.

The irony is that most companies already have the tools they need to begin leveraging these overlooked sales opportunities: Databases of untapped, relevant information. Thousands, maybe millions, of transactional documents. And most importantly, customers who are eager to hear from them.

When used strategically and thoughtfully, those "talking things" I mentioned earlier will not only deliver your messages effectively, but will also speak directly and meaningfully to each customer.

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8

Advancing Knowledge-Worker Productivity

If you want to be a productive citizen in the new economy, you need to be adept at handling information. That means adept at evaluating information, processing information and drawing on information to make decisions. In short, you need to be a knowledge worker. Why? Because knowledge workers are increasingly driving value creation in today's enterprises.

As outsourcing and offshoring continue to absorb "easy" productivity tasks such as customer service, the functions that remain in-house tend to represent an organization's core business. More often than not, that core involves collecting and managing information. Those who quickly leverage information to make smarter decisions—getting it right the first time around—are more likely to succeed.

That's why increasing knowledge-worker productivity has become one of the principal challenges facing today's enterprises. It's a tricky task made even thornier by an ever-growing tsunami of information flooding our 24/7 global landscape. However, if you increase the quality and quantity of employee output within this complex new world, you generate a world of benefits:

Decision making becomes informed and expedient. Products and services reach markets with greater efficiency. And profits go up. You also gain the financial resources necessary to attract and retain talented employees, invest in innovation and infrastructure, reward shareholders and achieve just about every other goal on the corporate agenda.

In fact, you could say that increased productivity is the most powerful cylinder in the economic engine. After all, when you enhance productivity, you drive growth. But how do you boost organizational productivity in the 21st century economy? It's a dramatically different undertaking than in the past because the nature of work has changed substantially.

From Manufacturing to Managing

In the days of Henry Ford, productivity measurement was fairly concrete. How many Model T's are rolling off the assembly line? How much steel is being produced for every hour of labor?

Output could be captured in a straightforward set of numbers. Then scientific management techniques could be applied to increase efficiency, provide training and tools and enhance employee morale. That, in turn, generated more widgets.

However, in most developed economies today, organizations are not powered by assembly-line workers, but by a new breed of employee—one who works with information, knowledge and ideas. Noted management consultant Peter Drucker anticipated this sea change more than 50 years ago when he added "knowledge worker" to the business lexicon.[1]

Knowledge workers now constitute a substantial percentage of the workforce in the developed world. But numbers alone do not capture their significance. Knowledge workers manage the most valuable assets of the Information Age—the data, information, business intelligence and intellectual property that, in aggregate, constitute organizational brainpower.

Says Drucker:

> The most important, and indeed the truly unique, contribution of management in the 20th century was the fifty-fold increase in the productivity of the manual worker in manufacturing. The most important contribution management needs to make in the 21th century is similarly to increase the productivity of knowledge work and the knowledge worker.[2]

Stephen Covey agrees. In *The 8th Habit: From Effectiveness to Greatness*, the best-selling author writes:

> Quality knowledge work is so valuable that unleashing its potential offers organizations an extraordinary opportunity for value creation.[3]

But you can't unleash the potential of knowledge work without understanding how to measure what you're enhancing. And that's not easy.

Making Information More Productive

Rather than take their place on an assembly line, knowledge workers often carry their work with them. You don't see sparks and dust flying when they tackle a task, because the heavy lifting takes place in the quiet chambers of the brain, as well as in their interactions with other knowledge workers.

What's more, their tasks are hard to define and may change every day, with no visible output beyond an idea. In addition, the collaborative nature of their work can make it difficult to determine who is contributing what. And it may take years before the value of a project can be assessed.

Frederick Taylor, the father of scientific management, would be tearing his hair out. With so many issues around measuring the productivity of knowledge workers, it would seem almost impossible to improve it.

Yet the solution is fairly simple. To increase the productivity of knowledge workers, you need to improve the way they work with knowledge. If you transform the dynamic processes involved in the management of information, you build a strong foundation for productivity gains.

Therefore, the central challenge of the 21st century workforce lies in leveraging information in the smartest, most productive way possible. That means:

- Enabling secure access to relevant information
- Ensuring that information is current and accurate
- Organizing information so that it can be understood and evaluated
- Using analytics to extract meaning from vast troves of information
- Fostering information sharing and collaboration

These five steps are proving to be invaluable as the workplace continues to evolve from an environment of cogs to one of cognition.

The Case for Case Management

As the Ford-era production mentality drifts further into the past, the idea of knowledge workers as "case managers" is emerging to take its place. Instead of working with project pieces passed sequentially from one employee to another, individuals are increasingly managing "cases" from start to finish.

Think of a bank officer handling a loan request or a claims analyst managing a disability claim. The knowledge worker interfaces with a series of people, but handles more of the actual work, hopefully adding value as he or she moves the case along.

While the word "case" may call to mind social workers or lawyers, an independent Forrester Research report defines dynamic case management as:

> A highly structured, but also collaborative, dynamic and information-intensive process that is driven by outside events and requires incremental and progressive responses from the business domain handling the case. Examples of case folders include a patient record, a lawsuit, an insurance claim or a contract, and the case folder would include all the documents, data, collaboration artifacts, policies, rules, analytics and other information needed to process and manage the case.[4]

The case manager concept is not new, but it is being reexamined in the light of today's business challenges. In its modern form, dynamic case management is a combination of business process management, enterprise content management, business analytics and event processing. What unites these diverse elements? Documents. Documents wind their way through a case from the moment it's opened until the day the file clicks shut.

Therefore, if you improve the efficiency of a case's document processes, you enhance the productivity of the knowledge worker, which in turn advances the productivity of the enterprise.

Enabling Access to Current Information

There is one simple step almost every organization can take to kick-start document-related productivity: digitizing documents.

By converting hard-copy materials into e-forms, you can remove tedious, time-consuming tasks such as filling out documents, distributing hard copies, filing and storage. You also enable greater information access and sharing. And you ensure currency because content can be updated in real time by authorized users.

Unfortunately, with increased access comes increased risk. That means information security is essential. You need to build rock-solid systems that restrict access to authorized users and include security measures such as firewalls and detailed audit trails. In doing so, you gain productivity and protection.

By enabling broad, secure document access, you can streamline everything from accounts payable and HR benefits management to onboarding and discovery in litigation. Even conceptual processes, such as those shaped by creativity or innovation, can be strengthened.

Dow Chemical provides an ideal example. For well over a century, innovation has been the cornerstone of Dow's success. The company prides itself on leading "the business of change—rearranging atoms and reshaping molecules to create new materials and new technologies."[5] One can only imagine the rich document library that preserves the company's past achievements while serving as a foundation for future advancements.

Dow's vast library has continually expanded as the company has grown, fueled in part by mergers and acquisitions. In 2001 alone, Dow purchased six companies and merged with Union Carbide. Naturally, Dow's scientists were eager to have these new document collections seamlessly integrated into the company's global knowledge base.

"A scientist works by leveraging what's already been done and then carrying it further," explains Anne E. Rogers, leader of Dow Chemical's Proprietary Information Services. "The easier you can make it for a scientist to discover what's already been done, the faster you can bring new products from idea to market."

Dow set about digitizing 5.5 million pages of documents. Many were not typical "pages." The collection included handwritten notes, oversized blueprints, hardcover books that had to be unbound and product samples glued to loose sheets of paper. Additionally, some of the library's most treasured pieces were rare, crumbling onionskin documents with fading ink. Preserving and safeguarding these mission-critical materials was paramount.

Once the project was complete, the company's worldwide R&D scientists and strategic partners gained global desktop access to the complete collection of research documents. What happened next? Access levels quadrupled. R&D was streamlined. And time to market shrank measurably. The company was even able to redeploy staff for additional productivity gains. Today, Dow's document library is in better shape than ever and, as founder Herbert H. Dow put it: "If you can't do it better, why do it?"[6]

Bringing Order and Meaning to the Data Chaos

Providing access without structure is like creating a pathway to the edge of a vast, overgrown jungle. To avoid losing users in the wilderness, companies must organize their information in a way that allows employees to readily extract meaning. This has never been more important than it is today, when "information overload" is proving to be an understatement.

Where does most enterprise information reside? In documents—both internal and external.

Take, as an example, health care. In a 2010 *New York Times* article, Dr. Pauline Chen wrote:

> Documentation takes up as much of a third of a physician's workday … Having become physicians in order to work with patients, doctors instead find themselves facing piles of charts and encounter and billing forms, as well as the innumerable bureaucratic permutations of dozens of health insurance companies.[7]

Clearly, Dr. Chen and her colleagues have plenty of information access. What they don't have is information structure. And the article doesn't even mention the unstructured electronic information that adds to their burden.

Putting it simply, access alone won't cut it. To realize document-related productivity improvements, you also need to organize information in a way that makes sense for the enterprise and makes life easier for its employees. Users need to be able to quickly find what they need and efficiently derive meaning from it, thereby making smarter decisions.

As recently as a few years ago, this was a daunting task. But advanced searching, cataloging, indexing and tagging technologies—such as meta tags—now enable content to be efficiently structured and accessed in a pointed way. It's a cake-and-eat-it-too solution: content is liberated and accessible, yet tightly managed and controlled.

One recent content management solution implemented by a Xerox client took this idea to new heights. Documents were labeled with bar codes that contained data about online routing paths and storage locations. When a document was scanned into the network, it guided itself to the appropriate reviewers and ultimately to its final database destination. More than just “smart,” these materials were essentially self-aware.

Search engines are also becoming astute. No longer content to drum up long lists of Web pages, computational knowledge engines like Wolfram|Alpha are synthesizing information on our behalf, presenting a single result in a structured, relevant format—e.g., as a direct answer, chart, math calculation, nutrition label, etc. Communication concepts like semantics and language nuance are influencing the way search engines “think,” enabling them to become more focused and deductive. Perhaps the best example of this is Watson, the IBM computer that bested two human *Jeopardy* opponents through recognition of natural language, including puns and double meanings.

Whether traditional or advanced, search engines are a beloved tool. “Google” would never have become a verb if they weren’t. Therefore, employees are beginning to call for real-time search capabilities inside the firewall. If you can scour the entire Web for a morsel of data, why can’t you hunt within your own company network?

Because of technologies like these, the traditional three-step information hunt—find the right document, open it and scroll through the haystack in search of the needle—is becoming a thing of the past. Instead, information expeditions are as fast as searching a structured database. Employees obtain the content they need immediately. It’s like taking a direct, nonstop flight to the information you want instead of wasting time with layovers or accidentally boarding the wrong plane. And the shorter the flight, the less time you spend up in the air.

Productivity Where You Least Expect It

By capitalizing on the approaches detailed in these pages, organizations across industries are able to gain new efficiencies and realize productivity improvements, often where you least expect them. Here are three examples:

The Doctor’s Office. A Medicaid agency implemented electronic health records so that patient information could be securely shared with physicians and other related agencies. Doctors now have access to each patient’s treatment history (including ER and specialist visits), as well as to treatment plans from other providers. Tightly coordinated care, fully informed decisions.

The Toll Booth. The New Jersey Turnpike Authority steered its failing E-ZPass program into the fast lane by expanding website documents, extending customer service hours and converting 122 miles of road to open tolling. The result? 863,000 E-ZPass accounts quickly grew to 1.8 million and revenue shifted into high gear.

The County Seat. Denton County, Texas, digitized more than 1.2 million land and vital statistic records, including deeds, birth certificates and marriage licenses. Citizens securely access the information online, driving 200,000 transactions a year and generating $1 million in savings (everything really is bigger in Texas).

Fostering Collaboration

Famed football coach Vince Lombardi said, "The achievements of an organization are the results of the combined effort of each individual."[8]

Did Lombardi's "organization" have access to playbooks and game plans? Absolutely. Was information structured in a useful way? It had to be. But what really made Lombardi's Packers a winning team was collaboration.

Collaboration is no less important when running toward business goals. Fortunately, a myriad of technology tools—infrastructure-embedded and cloud-based—can help streamline the process. Whether videoconferencing on Skype®, sharing materials via BlitzDocs®, commenting on a PowerPoint presentation through Microsoft Live Meeting®, or forwarding sales leads over LinkedIn®, collaboration has never been easier.

When e-files are housed in a single, shared repository or stored in the cloud, employees no longer pass documents to one another in a time-consuming, sequential process. Instead, knowledge workers simultaneously review documents, provide input and take action, aided by version control tools. And that has a tremendous impact on productivity.

At Xerox, we are currently developing a pioneering document solution that delivers collaborative network benefits to health care. One potential application revolves around post-care facility placement for hospital patients. Here's a typical "before" scenario:

Karen has just had successful heart surgery and needs to be discharged to a rehab facility. The hospital's placement coordinator begins calling local sites to find an available bed.

The first facility isn't sure what they have, but promises to call back. The second has no protocols for cardiac patients. The third has an opening, but not until the following week. The response of the fourth is, "Sorry, but the woman who does that is out to lunch." The fifth is almost sure Karen can be accommodated but, "Could you fax over the paperwork first?"

Meanwhile, two facilities in the next town have exactly what Karen needs, but they're not on the hospital's call list.

Adding their opinions to the scramble are Karen's physician, her nurses, the social worker, the payer, the home health agency for Karen's follow-up care, and, of course, Karen and her family. Eventually, an opening is found. But the patient coordinator discovers at the last minute that Karen requires an oversized bed. Karen's transfer is canceled and the cycle starts all over.

The problems with this process are fairly obvious. Inaccessible external information. Incomplete internal information. Lack of coordination. Time-devouring phone calls and faxes. Plus the financial strain on the hospital, which keeps Karen longer than it should, and the emotional burden on Karen and her family.

Now, envision an "after" world where Karen's placement involves a collaborative network solution:

The hospital placement coordinator pulls up Karen's record on his desktop system. Karen's e-folder contains all the criteria for her post-hospital care, including the need for an oversized bed, her cardiac protocols and any related insurance information (while meeting HIPAA requirements).

The coordinator begins his online search. He has direct access to the available beds at rehab facilities, group homes, assisted living facilities and other sites, local and out of state. The facility information is detailed—bed types, staff, protocols—and updated in real-time. The coordinator makes his decision based on data that is complete, current and accurate. Within minutes, he finds the perfect opening in the next town. A few taps on the keyboard and Karen, her family and her hospital team can be certain she'll get the care she needs.

This after-care example involves a single knowledge worker. Just imagine what would happen if these proficiencies were achieved throughout an enterprise.

Another force driving the move toward productive collaboration is social networking. Sites like Facebook® and Twitter® are increasing the expectation that we can easily and instantly connect with others. Tools such as crowdsourcing and fan pages are encouraging customers to add their voice to the business conversation. And online sharing, whether opinions or baby photos, is becoming a part of the air we breathe. Many enterprises are still at the socially awkward stage, wondering how to approach the dazzling new superstar. But it's clear that the collaborative nature of social technologies holds great potential for enterprise efficiency.

Facilitating Smarter Decision Making

Although knowledge workers are engaged in a diversity of tasks, they share a common job function—making decisions that have a significant impact on the company's present and future. In a way, decision making is the “critical app” of knowledge work. Good decisions move your business forward. Bad ones set it back.

An attorney’s decision in a key litigation matter can save a company a billion dollars or result in financial catastrophe. A physician’s decision can have a life-or-death impact on a patient. An engineer’s decision about the design of an overpass can improve the lives of commuters or threaten their safety. Add up the multitude of decisions like these in any given organization and the significance is monumental.

When you broaden access to well organized document content and enable collaborative workflows, you improve the quality of decision making at both the individual and group level. The City of Dallas is experiencing this firsthand thanks to the digitization of more than 100,000 engineering drawings used by its water department for repair and maintenance.

When the Dallas project is complete, field crews will be able to access relevant information at the point of need—alongside a leaky water main, for instance—rather than drive to department headquarters, rummage through files for a hard-to-find document, then return to the original site to fix the problem. That means decisions about minor fixes or life-threatening disruptions can be made with greater speed and confidence.

The leaders of this dynamic, business-oriented city also converted their paper-based city hall fax machines to a digital system, saving time for key administrators and busy staff members.

“We’re able to move documents quickly, scanning documents, and so now we just send things to each other so much easier and faster,” said Assistant City Manager Jill Jordan. “It’s really been a great improvement for all of us, because we’re able to do our work so much easier and quicker and more efficiently.”

Public sector solutions like that of Dallas provide better service for citizens and ultimately conserve tax dollars. But comparable benefits can be gained by any company that improves its decision-making process. One tool positioned to play an appreciable role in this area is predictive analytics. Like computational search engines, these technologies extract meaning from enormous amounts of data, much of it stored in documents. But unlike search engines, they deal in projections and likelihoods.

As predictive tools assume greater business responsibility, information that was once the exclusive domain of statisticians will be more readily available to knowledge workers. Analytic insights will aid in anticipating customer behaviors, projecting prospect responses, forecasting product sales and otherwise envisioning an enterprise’s future. All of which contribute to smarter decisions.

And what do smarter decisions really mean? Fewer mistakes and faster results, regardless of your industry. What's more, you'll be spared the consequences of many ill-advised (or just plain bad) decisions. That means less rework, fewer problems at the 11th hour and a reduced need for costly damage control. It's productivity, with the added benefit of prevention.

Keep Improving the Improvements

Access. Currency. Organization. Collaboration. Analytics. Decision Making.

Each can be optimized on behalf of your knowledge workers when you take a strategic approach to the management of documents and the information they contain. It's all part of the effort to help your most valuable employees do a better job of serving customers … developing new products and services … solving problems … and shortening the distance between strategies and goals.

By improving knowledge-worker productivity, you improve organizational performance. It's that simple. The faster—and sooner—you move your organization forward, the more likely you are to leave the competition behind.

It's also critical to remember that productivity improvements are anything but static. If you're accelerating the wheels of progress, don't take your foot off the gas pedal. Your workflow enhancements must continually be enhanced. As Jim Collins wrote in the business best-seller *Built to Last*:

> The critical question asked by a visionary company is not "How well are we doing?' or "How can we do well?" or "How do we have to perform to meet the competition?" For these companies, the critical question is "How can we do better tomorrow than we did today?" They institutionalize this question as a way of life—a habit of mind and action. Superb execution and performance naturally come to the visionary companies not so much as an end goal, but as the residual result of a never-ending cycle of self-stimulated improvement and investment for the future.[9]

And isn't that what productivity is all about?

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9

Sweating the Details of the Brand

Any company can make a brand promise. But only the best companies keep them.

Most enterprises do an admirable job of initially presenting themselves to their prospects. Their brand message is expressed in an interesting way; their brand image is set up well. But the brands that endure do something more—they maintain consistent, high standards throughout the customer life cycle, sweating the details at every customer touchpoint.

Effective branding is a precise and mindful endeavor that you can't fake. It's apparent in every document and at every stage of the customer experience, including pre-sales, sales, onboarding and up-selling. When you do it well, you gain a competitive advantage—customers pay more simply because of the brand.

When a brand is deeply thoughtful and carefully engineered, it provides rich, tangible value. That's the upside. The downside? If you don't manage the details of your brand well, the brand itself can be destroyed. Smart document management helps ensure that doesn't happen.

The Power of Effective Branding

There's no doubt that branding is a hot topic in offices around the world. Amazon.com has more than 2,500 brand-related books. A Google search on "brand building" turns up 8.6 million hits in a fraction of a second.

But what exactly is a brand and how do documents help build it?

To answer the first half of the question, let's consult the most popular brand in online encyclopedias. According to Wikipedia, a brand is "a name, sign, symbol, slogan or anything that is used to identify and distinguish a specific product, service or business."

Renowned marketing guru Seth Godin offers his own spin:

> A brand is the set of expectations, memories, stories and relationships that, taken together, account for a consumer's decision to choose one product or service over another. If the consumer (whether it's a business, a buyer, a voter or a donor) doesn't pay a premium, make a selection or spread the word, then no brand value exists for that consumer.[1]

Inherent in Godin's description is the message that a brand is not a logo or a product or a website alone. It's a dynamic combination of all those elements, plus many others, including documents, organizational culture and customer interactions.

More than just a recognizable flag to wave at the world, your brand directly or indirectly leads to revenue growth—or decline—because it elicits a response from your consumers. It's your job to make sure the response is favorable.

The executive director of the Brand Institute at Emory University, Rajendra Srivastata, puts it this way: "A brand really lies between the two ears of the consumer. The company owns the physical brand, of course. But the value of the brand really is what it means to the consumer."

The Struggle to Quantify Brand Value

In the winter of 2010, the Credit Suisse Research Institute released a report on the "Great Brands of Tomorrow." The study concluded that "companies that focus on brand-building consistently generate outsize, long-term growth, profitability and return."[2]

As *Forbes* writer Allen Adamson noted, the report was a milestone of sorts. It indicated that the investment community was finally recognizing the bottom-line importance of a hard-to-quantify asset: a brand.

Not that the concept is new. For years, business professors and branding agencies have pondered the financial value of leading brands. Some have concocted complex Einsteinian calculations. Others advocate a simple equation: Market capitalization minus tangible book value equals brand value.

For instance, before the recent recession, the market value of Harley Davidson was calculated at more than 100 times its book value. And the brand value of Coca-Cola, perhaps the world's most widely recognized product name, has been estimated to be worth approximately $67 billion.[3]

Another often-cited reference is the Phillip Morris purchase of Kraft in 1988. Kraft's price tag was close to six times the company's apparent worth based on concrete assets like inventory, buildings and equipment. Why the phenomenal markup? The famous Kraft brand.

It's no wonder that the world's largest brand consultancy, Interbrand, likes to quote John Stuart, an early Quaker Oats CEO, who said, "If this business were split up, I would give you the land and bricks and mortar, and I would take the brands and trade marks and I would fare better than you."[4]

Ensuring Consistency at Every Touchpoint

As the preceding examples illustrate, your brand is one of your most valuable assets in the modern business world. However, brand value is not constant. And not every organization manages its brand well.

A quick glance at Interbrand's annual list of the *100 Best Global Brands* drives home the point. In 2010, 10 companies made the list for the first time. That means 10 other well-known companies were eliminated. Even organizations that remain on the list can see their brand value swiftly evaporate. In the 2009 list, one financial services company was estimated to have lost 50 percent of its brand value in a single year.[5]

Clearly, brand value is a volatile substance. Like mercury in a thermometer, it can go up or down in a hurry. That's why it needs to be carefully developed, nurtured, managed and maintained. One way to do this is to drive clarity and consistency through all your customer touchpoints, reinforcing the value to your customers in a way that's uniquely you. Writer Ted Matthews expressed the point concisely in a post on *Canadian Business Online*:

> Your company's brand is what people think of you, and that's shaped by every interaction you have with your market. It is therefore crucial to ensure that every touchpoint with your company is consistent, that you present a clear and unvarying sense of what you're all about.[6]

The touchpoints Matthews references are the key building blocks of customer relationships. They represent every personal, print and digital interaction you have with your customers in and across channels. They may be traditional interactions—such as sales calls—or Web 2.0 connections, like a Twitter blast or a mobile marketing campaign. The smart use of touchpoints is the difference between a winning brand and an also-ran.

Many companies are masters at this. They range from major multinational corporations like Disney to niche companies like Burt's Bees personal care products.

Another good example is the famed insurance company Lloyds Banking Group, better known as Lloyds of London. For centuries, Lloyds has managed to maintain a consistent, high-quality image—a single, strong brand that endures today, even with 16 million customers, 90,000 employees and 2,000 locations across 27 countries.

A portion of Lloyds' image stems from the unusual insurance policies the firm has written, such as those for Tina Turner's legs and Keith Richards' fingers. However, since its 17th century founding as a provider of marine insurance, the company has sweated the details of its brand, establishing itself as the premier provider of specialist insurance.

In fact, Lloyds is such a proponent of brand value that its website has an entire section devoted to the importance of the Lloyds brand. Here's just a sampling:

> We are all responsible for bringing our brand idea to life by ensuring that it is reflected in everything we say and do during the working day. We all have a part to play … the [brand] has to be implemented across the entire range of our communications, including our website, intranet publications, newsletters, stationery, business cards, PowerPoint presentations, events, merchandise and media relations.

And by "brand" Lloyds doesn't mean exclusively "look and feel." They're also talking about their clearly articulated values: an appetite for risk, expertise and intuition, agility and dependability. In short, a brand personality they describe as "confidence and flair."

One way Lloyds meets its branding goals is through a full range of outsourced document services. Working with Xerox, Lloyds reinforces the power and consistency of its long-standing brand through unified creative services, document production and publishing, transaction document printing, warehousing, imaging and e-print sourcing.

Xerox is comparably vigilant about its brand. In fact, we faced our own brand issues when we transitioned from a copier/printer company to a services partner who helps manage information. Brand clarity and consistency were key. So were customer needs.

Even a detail like our logo graphic was thoughtfully created to ensure meaning. The sphere provides a sense of "global" and "movement" while the lowercase "x" represents our connections to customers, partners, industry and innovation. Ultimately, our customers inform all aspects of our brand. As Xerox CMO Christa Carone aptly put it, "Our message is more powerful when spoken through our customers."

Avoiding the Disconnect between Up-Front and Follow-Up

Why is document consistency so vital to a brand? Because documents—in all forms—act as brand ambassadors. They are special diplomatic representatives of your enterprise, interacting with customers at every stage of a relationship:

They generate awareness. They help acquire new customers. They facilitate onboarding. They maintain and deepen connections. And they provide essential information and guidance about the products and services that led to your customer relationships in the first place.

It's important to use your ambassadors wisely, maximizing their impact and value in all prospect and customer communications. And the most important word in the preceding sentence is "all."

Enrollment forms. New account information packets. Benefits statements. Bills and invoices. Policy changes and updates. Loyalty programs. User guides. Cross-selling and up-selling communications. Email notifications and alerts. Mobile phone messages. And so on.

For instance, one year after one of my colleagues bought a new car, the manufacturer sent her an anniversary gift—an elegantly packaged pen with a thank-you note. She's a customer of that car company for life because they used a direct-mail touchpoint cleverly (and she loves the car).

Regardless of the touchpoint's form, it affects a customer's perception of your brand. Even something as simple as product packaging sends a direct message about who you are. Just ask any gift recipient whose face has brightened at the sight of an unmistakable blue box from a certain high-end jewelry store. Brand masters like Tiffany recognize that in the eyes of their customers, the package is the company.

Microsoft is equally savvy. There isn't a PC user in the world who doesn't recognize the Windows four-pane brandmark. In fact, we worked with a Microsoft production partner, Mediaware Digital Ltd. in Dublin, to help ensure consistency in Windows 7 packaging. As Mediaware printed multilingual Windows boxes on demand, it was essential to maintain Microsoft's brand identity across all languages.

Yet as critical as these communications may be, many companies suffer from a disconnect between "follow-up" touchpoints and the "up-front" image presented in ad campaigns, social media and other high-profile marketing programs. This inconsistency can undermine a brand by raising questions about its authenticity.

Think of it this way. A sophisticated, energetic sales rep in a crisp Armani suit walks in your door. He is completely engaging and expresses genuine concern for your best interests. He listens to you. He tells you how important you are to his company. And he offers a product or service that seems like a perfect fit. You sign on the dotted line, feeling confident and happy as the rep walks away.

The next day, a second company rep arrives. His hair is uncombed. His beard hasn't seen a razor in days. And his splattered overalls are more thrift store than Armani. He halfheartedly installs your new product or service, finishing with a curt, "Sorry, that's the best I can do." When you protest, he replies, "We have a million customers. I'm not really worried about you."

As the rep shuffles toward his battered van, your perception of the company heads south in a hurry. A simplified analogy, I admit. Yet this is the split personality many companies project when they fail to maintain brand consistency throughout their customer communications.

Keeping the Pink Panther on the Prowl

Owens Corning is a perfect example of a business that understands the importance of consistent branding.

For almost 30 years, the company has used the iconic Pink Panther character as its official brand spokesperson. The coral cartoon cat can be found spinning a globe on the website home page or peering out from a performance warranty or clutching a pawful of money on a tax credit form.

Chosen to reflect the color of the company's insulation products (dyed pink for visual contrast), the Pink Panther has come to mean Owens Corning in the consumer's mind. Even the company's phone number, 1-800-GET-PINK, reinforces the brand identity (not to mention the company's trademark on the word PINK).

So when Owens Corning made a sizable acquisition that increased employees outside the United States by 50 percent, they were concerned about potential inconsistencies and inefficiencies among their documents. A valid concern since the document pile included thousands of technical publications, HR and marketing materials, and other business communication. To ensure that no one led the beloved panther down the wrong path, the company implemented a fully integrated global document management system.

The solution included four key components:

- Centralized print production and fulfillment services that helped Owens Corning maintain consistency and achieve 100 percent on-time delivery
- An end-to-end Lean Six Sigma Document Production analysis of the document supply chain, which uncovered areas for process improvement
- Content management and translation services across a wide variety of global publications
- Digital Print-on-Demand (POD) capabilities for producing high quality documents in smaller, cost-effective quantities

Today, whether consumers are looking at documents that bear the Pink Panther, le Panthère Rose or de Roze Panter, the brand that comes through is still unmistakably Owens Corning.

Getting on Board with Onboarding

One often overlooked touchpoint in the communications process is onboarding—the stage where a company acquires a new customer or partner. According to an independent April Forrester Report: "Customer onboarding lags behind other business processes in both the quality of the customer experience and costs.

The poor state of customer onboarding results in customers abandoning the application process, loss of customers, regulatory fines and damage to the corporate brand." [7]

Yet onboarding represents an all-important customer touchpoint. It welcomes a "stranger" to your organization and provides a glimpse of what's ahead. Some visionary companies are preventing customers from falling through the onboarding cracks by making sure the cracks never form. Using tools like Enterprise Content Management (ECM), communication engineering and centralized document production, these prudent enterprises are leveraging onboarding to reinforce brand affinity.

For example, they're producing highly personalized welcome kits and prepopulating forms with information customers have already provided. This immediately sends two messages: we know who you are and we'll make life easy for you.

The need to capitalize on onboarding documents will only intensify as customer interactions continue to evolve from face-to-face to face-to-screen. Commoditized processes are being automated with greater frequency and mandates around "wet" signatures are changing. Effective onboarding can infuse your initial customer touchpoints with simplicity and even warmth, building better relationships right from the start.

Apple: Branding's iGenius

It is almost impossible to discuss brands without mentioning Apple. Just about every branding expert sings the praises of this innovative leader.

"It's a really powerful brand," wrote Robin Rusch, editor of Brandchannel.com. "The overwhelming presence of Apple comes through in everything they do."[8]

Creativity. Originality. People-friendly technology. And an "it" factor that's out of this world. It's all part of the powerful Apple brand, reinforced at every customer touchpoint. Whether you're looking at packaging, watching an ad or interacting with a Genius Bar employee, it's clear you're having an Apple experience. Not to mention the experience the stores themselves afford.

Branding expert Marc Gobé, author of *Emotional Branding*, describes Apple's retail environment this way: "Filled with light and a pleasing combination of green glass, modern gray tones and the now pervasive white products, from iBooks to iPods, the store makes you feel like you are in the California home of someone who knows everything and then some about the next wave in computer technology."[9]

Even a person who has never seen an Apple store can probably conjure up a pretty accurate picture of the place. That's a tribute to the power of the brand.

"Regardless of the field you're in, you can learn something from Apple about messaging—consistency," wrote Carmine Gallo, a communication skills coach, in online *Business Week*.[10]

The brand management experts at Apple work overtime to achieve their world-class uniformity, mindfully avoiding the disconnect mentioned earlier. And their results are measurable. In the 1990s, many "experts" considered Apple a has-been. In May 2010, the company shot past Microsoft to become the largest technology company in the world.[11]

Groundbreaking, beautifully designed products are clearly the prime factor in Apple's remarkable turnaround. But the company's consistent brand likely claims the cherished second spot. Owning the newest Apple innovation isn't just about product function. It's about the personal cachet of the brand itself.

The satirical news publication *The Onion* captured this emotional need with tongue firmly in cheek when they covered the introduction of the iPad:

> To ensure that its users receive the constant public attention they crave, the iPad will emit the phrase, "Hey, does that guy have an iPad?" every eight minutes.[12]

What other brand would even warrant a joke like that?

Five Possible Reasons Your Brand Isn't Apple

If brand consistency is so incredibly important, why isn't it commonplace? Why, instead, do we continually discuss brands using an Apple-to-oranges comparison?

Based on what Xerox has experienced with its clients, five reasons continually surface:

1. *Fragmented, decentralized communications.* In many organizations, one group handles high-level brand management, while other groups produce the "routine" documents necessary for ongoing customer communication.
2. *Cost-center myopia*. Post-sale communications are often viewed as a cost center, so organizations economize on development and production, rather than reengineer these documents to improve the customer experience.
3. *Minimal touchpoint unity*. Many companies lack a big-picture view of their touchpoints, missing the fact that each one strengthens, maintains or detracts from the brand.

4. *Taking customers for granted*. Remarkably few companies build on their brand to deepen relationships with existing customers.
5. *Ineffectual documents*. Businesses frequently send out documents that are poorly designed or vastly underutilized, hindering a short-lived opportunity to make a customer connection.

As an outgrowth of these organizational oversights, post-sale communications are frequently relegated to second-class status. They are also often unappealing, confusing or presented in a way that implies that the customer's business is a given. These are not perceptions any company wants to create, particularly in a world where social media word of mouth is becoming the most powerful form of marketing.

Maintaining Brand Quality throughout the Customer Life Cycle

The good news is that there are steps you can take to eliminate the communications disconnect and ensure brand consistency. As an added bonus, these measures can also lead to greater cost control and higher quality.

Tear down the silos. Start by recognizing that all your prospect and customer communications are brand-building opportunities. Take the silos apart and bring your communication fragments together. How? By developing an enterprise-wide strategy that unites your multichannel touchpoints.

Communicate on a one-to-one basis. Customers and prospects want to be treated like individuals. It is more critical than ever to speak to them in a personalized way. One-to-one programs can be developed with the help of outsourcing partners who handle everything from data management and creative development to production and multichannel distribution. When done well, personalized communications are invaluable in promoting brand allegiance.

For example, recipients of a highly personal New York Mets mailer were delighted when the team used XMPie technology to add each fan's name to a photo of a Mets jersey.

A story I heard at a recent Xerox meeting further illustrates the point. A colleague of mine met her husband while both were attending Syracuse University (a school with its own distinct brand—any particular color come to mind?). They married after graduation and updated their alumni profiles.

Since then, the couple has received an annual Valentine's Day card from their alma mater. Inside the card is a note wishing them well, a reference to a local hot spot they may remember and, of course, a donation form. Using basic database information, S.U. is able to make a personal connection and position itself as Cupid. What happily married couple could resist saying thanks?

Leverage your 95 percent readership rate. According to InfoTrends market research, documents like invoices, account statements and benefits sheets have a remarkable readership rate of 95 percent in North America and 98 percent plus in Western Europe.[13] Billions of these documents are distributed every year, representing a prime brand-building opportunity. With the help of content and design experts, you can reengineer these communications to include personal information, aid in up-selling or cross-selling, advertise third-party solutions and otherwise captivate your captive audience.

Add color to the play-by-play. Your brand is presented in color on TV, in ads and across the Internet. People expect to see color. Why not add it to operational communications like invoices, emails and manuals? New print-on-demand capabilities and color production technologies make it easy and affordable. You'll not only reinforce consistency, but also potentially increase sales.

Engineer perplexity out of the process. The operational documents mentioned above often cause customer confusion. How much do I owe? Which benefit program is mine? This can lead to costly call-center inquiries and payment delays. The situation grows worse when customer documents don't match the support rep's on-screen forms. Resolutions slow down as customer frustration heats up. But when documents are redesigned to simplify comprehension (e.g., highlighting action steps, due dates, etc.) and are aligned across all channels, you can deliver greater customer value and enhance your brand.

One Xerox client, Aliant, a leading Canadian telecommunications provider, did just that. The company recast its invoice as an effective brand-building tool, while reducing call center demands in the process. Another client, Northwest Airlines, was able to slash customer calls by 50 percent—and promote brand fidelity—with an online self-service solution developed by our ACS team. And the Regence Group turned a complex health benefits form into a powerful customer retention tool (see *Strengthening Brand Loyalty*).

Keep the conversation going. The goal of a sound brand strategy isn't to support a single touchpoint. It's to merge all your pre- and post-sale communications into a continuous, two-way conversation that improves customer loyalty, deepens your understanding of customer needs and improves the overall perception of your brand. Once you've started talking, don't stop.

Strengthening Brand Loyalty with Communication Engineering

The Regence Group, an award-winning health insurer, was experiencing unexpected document pains. Its explanation of benefits (EOB) form—which offers transactional information about plan use—was causing confusion among the company's 2.5 million members. Customer service specialists were fielding a flood of unnecessary calls from members who had trouble understanding their benefits and costs due to a jumble of jargon and codes.

Realizing that member exasperation could erode customer loyalty and lead to member loss, the company developed a remedy. No easy task. EOBs are complex documents that include dynamic information on a multitude of products and services, drawn from a variety of databases. They are also heavily regulated, which means legal, marketing, IT and other stakeholders needed to be involved.

The Regence solution involved communication engineering, a specialized service that uses design and content development techniques based on behavioral insights into the human communications process. Working with Xerox, Regence conducted a series of Knowledge Exchange Workshops with all key stakeholders and collected Voice of the Customer input. Then we worked together to develop and refine a prototype form.

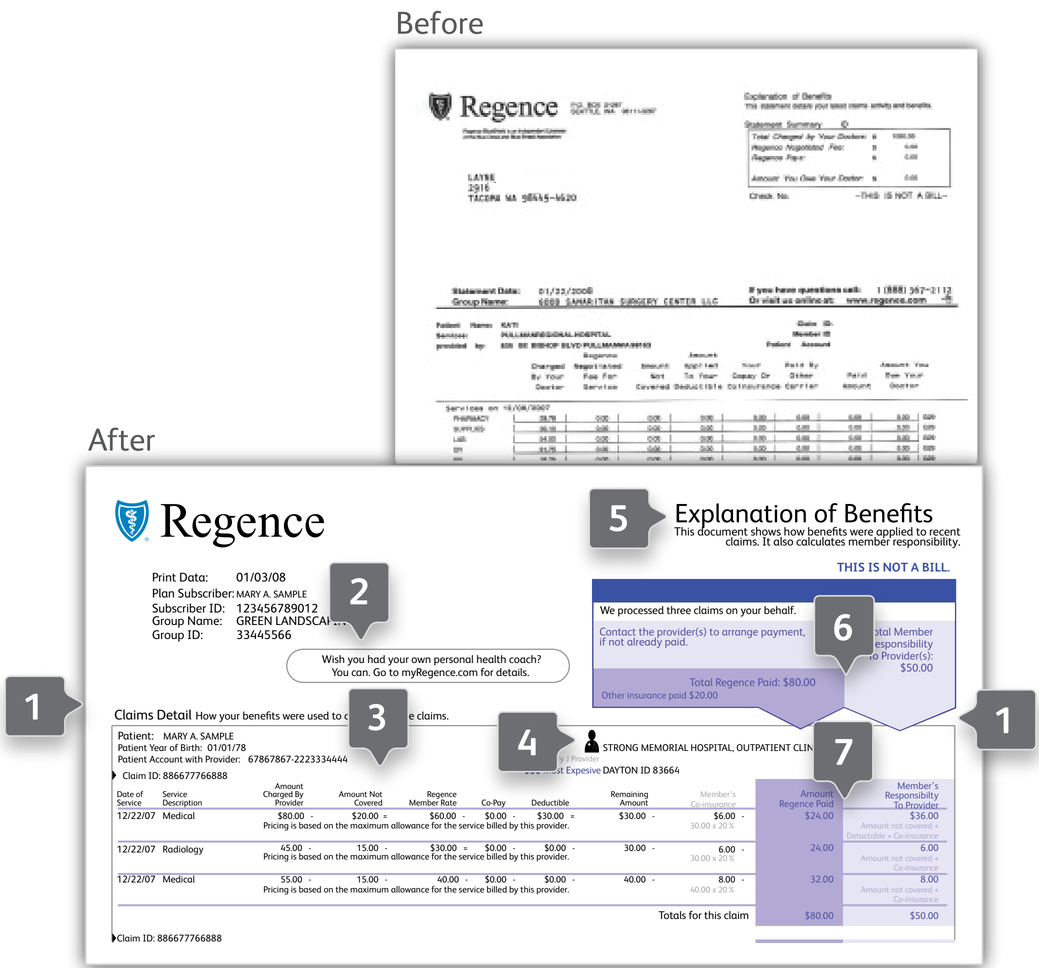
Comprehension stumbling blocks were identified and eliminated. Form navigation was simplified. Critical information and calls to action were highlighted. And new information, such as year-to-date benefits and out-of-pocket expenses, was added. In short, the form was redesigned to present information of greater relevance in a clearer, more logical way.

According to Carol Rouzpay, Regence Director of Member Operations, "One of our core strategies is to enable our members to make informed decisions about their health care. And this redesigned EOB gives us the opportunity to provide members with transactional information as well as educational and health-related information."

Equally key, a routine document is now a cost-reducing brand loyalty tool.

The sidebar on the next page helps illustrate the concept:

Regence Communication Engineering: Explanation of Benefits Form



- **1** Use of color to aid in customer comprehension
- **2** **3** Promotion of alternative choices to member’s advantage
- **4** Financial impact of member’s provider choice
- **5** Explanation of document purpose – what it is and isn’t
- **6** **7** Immediate clarification of contract payment and member’s responsibility

Bringing the Best of Your Brand to Every Touchpoint

While great creative and a solid strategy are essential to exceptional brands, they're really just a starting point. What makes a brand beloved are its details, the way it's deployed and managed, the standards it maintains—the quality of printed materials, the consistency of message, the touches that define products and services, and the personal connections that set the brand apart. Documents are essential to all of it. Integrated, enterprise-wide management of your pre- and post-sale communications is an invaluable way to reinforce brand authenticity and impact.

The need to do so cannot be overstated, particularly in an age where Facebook "Likes" are as valid as expert endorsements, and disgruntled Yelp reviewers can tarnish a business's reputation in a day. It is more difficult than ever to control the market's conversation about your brand. Therefore, it is more important than ever to manage your brand well.

In *Lovemarks: The Future Beyond Brands*, A.G. Lafley, the former chairman, president and CEO of Procter & Gamble, said:

> The best brands consistently win two crucial moments of truth. The first moment occurs at the store shelf, when a consumer decides whether to buy one brand or another. The second occurs at home, when she uses the brand—and is delighted, or isn't. Brands that win these moments of truth again and again earn a special place in consumers' hearts and minds; the strongest of these establish a lifelong bond with consumers.[14]

Regardless of whether your organization produces consumer goods, every company has its moments of truth. They are represented by your customer touchpoints. And documents can help you maximize them.

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10

The Significant Gains of Document Cost Reduction

We're all working together; that's the secret.
Sam Walton

When economic think tanks like the Milken Institute calculate business costs, the formula usually includes factors such as wages, taxes, utilities and real estate. But every experienced organizational leader knows there are many costs that are far more challenging to capture or even categorize: The cost of adhering to outdated routines while competitors zoom forward on the wings of advanced technology. The cost of redundant or overlapping job functions. The cost of a disgruntled employee sharing opinions on Facebook.

And the cost of poorly managed documents.

If you're like most companies, your document generation is likely to be fragmented. Print production is scattered among internal and external resources; desktop devices are as common as weeds and just as hard to control.

Time and again, we meet with prospects who are surprised to discover just how much this fragmented document production is costing them. It's easy to see why. As a result of widespread fragmentation, no one in the enterprise "owns" document costs or has an end-to-end view of document production. That makes it impossible to capture expenses or drive cost improvements.

Compounding the situation are dollar-wasters that are even harder to detect—inefficient document processes. Workflow flaws like poor content control, redundant tasks, misplaced materials and time-consuming sequential reviews fuel skyrocketing costs.

The good news? Because document expenditures are so frequently overlooked, they provide a tremendous opportunity for savings. If you implement document efficiencies, cost-efficiencies will follow.

Easier said than done, of course. Each area of potential cost reduction—print production, desktop devices, document processes—offers an increasing degree of complexity.

For many companies, print production tends to provide the simplest first step because the costs are easier to get your hands around. Desktop sprawl is a little trickier as it involves tracking down far-flung devices and changing workforce behaviors. Process redesign is, of course, the most effortful of all, but when it's done well, it's the Holy Grail of cost reduction.

Before discussing each area further, let's step back and look at how the cracks formed in today's splintered environment.

Why Enterprise Documents End Up in Pieces

Document production usually begins in one corner of the organization, the purview of a select few. As companies evolve or expand, individual departments assume their own document responsibilities. Then enterprise-wide functional areas, like HR or finance, start having a say. This internal dissonance is exacerbated by an external cacophony of old and new print vendors who offer digital and offset services, multiple levels of paper quality, a diverse range of inks and ever-expanding capabilities.

Keeping track of the chaos is a job few people seem to have, want or even realize is necessary. Redundancies abound and any potential economies of scale are tipped off balance. This lack of centralization and control leads in one direction—toward rising print costs. It also results in little or no awareness of total print spend.

It doesn't help that many of the people responsible for purchasing external printing have no related training or expertise. Nor should they. They're finance professionals and marketing experts and administrative aides. In fact, less than one-third of purchasers are true print buyers. Yet they're grappling with paper weight and caliper, the discrepancies between PC color and printed color, production cost-efficiencies and other issues that weren't in their original job description. What's more, every wrong decision has an associated cost.

Most print vendors will gladly guide you through production entanglements, but even so, buying print is a manual, time-consuming chore. An IDC U.S. survey found that 36 percent of medium and large companies outsource print procurement.[1] That means the rest are calling vendors on the phone, filling out job tickets, following up and worrying about a job until it rolls off the press. All that wasted time equals wasted dollars.

You would think that in-house printer and copier advancements or the proliferation of desktop devices would minimize the problem. After all, anyone can run out to Staples at lunch, pick up a new desktop printer and be back in time to grab a sandwich. Unfortunately, all too often, they do. And it's only made matters worse.

The Distributed Desktop Dilemma

It looks as though some of the fragments are themselves forming their own sub-fragments.
Don Yeomans

Yeomans, a respected U.S. senior research scientist, was referencing a comet, but he could easily have been describing the document production sprawl of today's offices. The document fragments of the modern enterprise continually spawn sub-fragments, resulting in a proliferation of stand-alone and shared printers, copiers, faxes and multifunctional peripheral devices, plus software to link them all.

Very few organizations have insight into the mounting costs of this complex, distributed environment. Most don't even know how many devices they own—completely understandable since a few clicks on OfficeMax.com can instantly change the total.

Because document generation isn't treated as a managed area, there's no big-picture view of who is using what, let alone when, where, how and why. But there are plenty of big-picture issues. Here's how Quocirca, the European business and IT analysts, describes the environment:

> A tangled mix of old and new hardware, requiring a myriad of different and incompatible software and consumables. Ownership is often fragmented across departments, locations or geographies and lack of centralized print management tools means that there is little or no visibility, or control, into usage and costs, let alone managing the issues that the inherent security risks of today's generation of advanced networked multifunction peripherals present to an information-rich organization.[2]

If an enterprise were to track the cost of its printers, it would have to redefine "cost" to include maintenance, upgrades, training, paper, toner, ink, etc. The enterprise might also encounter an unexpected expense—the cost of low utilization. Through our many client assessments, we have found that, on average, employees use their printers 1-2 percent of the time. Whether active or not, these printers are drawing power, intensifying the cost drain while creating a sustainability issue.

Unfortunately, it's difficult to solve these problems when companies don't realize they exist. Yet our work in this area has shown that uniting fragmented document fiefdoms not only corrals costs, but actually reduces them.

135,000 P&G Employees, 1 Printer

One of the true tests of leadership is the ability to recognize a problem before it becomes an emergency.
Humorist Arnold H. Glasow

Two years ago, Proctor & Gamble was facing a situation not unlike what I've described above. 135,000 employees in 80 countries were using 45,000 individual copiers, printers, scanners, fax machines and other devices. (We know. We helped count them.) An average of four employees shared each device, with every one of the company's 200 worldwide facilities free to make its own purchases.

"It was absolutely not efficient," says Caroline Basyn, P&G's director of global business services. "I wanted to manage the whole worldwide fleet as if it were one printer."

To do so, this global consumer products leader implemented a solution that combined Managed Print Services (MPS) with Lean Six Sigma quality improvement. The P&G project team worked with employees to capture, measure and track document processes throughout the organization. Individual and group interviews were held, with employees performing a multitude of diverse document-related tasks, some to the ticking of a stopwatch.

Based on the team's findings, document-driven processes were reengineered and the company's worldwide print operations were outsourced. P&G trimmed its 45,000 printers and copiers to a fleet of 10,000, with approximately 14 employees sharing each device. Furthermore, 8 million fewer P&G pages now roll off the presses.

Although P&G's transition is still under way, more than two-thirds of the company's sites have adopted the MPS solution. The results make it look as if the company's Mr. Clean® Magic Eraser® has been wiping away expenses. Printing costs are down by 21 percent. Paper consumption by 30 percent. Energy costs by another 30 percent. Equally notable, the combination of MPS and Lean Six Sigma is saving a typical P&G user more than 200 minutes each year (a company-wide savings of 138 business days—practically half a year of extra time).

"Managed Print Services gives them minutes back in their day," Basyn concludes, "so they can focus on taking care of business rather than printing."

The 3 Main Causes of Excessive Print Spend

- No clear demarcation of responsibility for the print infrastructure nor any central oversight, forcing multiple departments to operate independently
- Device acquisition based on individual and departmental demands, with little consideration for the overall needs of the business, resulting in an overabundance of devices (sometimes as high as 60 percent)
- Operational costs, such as supplies and service, expensed at the departmental level, obscuring total running costs—which frequently outweigh purchase expenditures

Managed Print Services: Cutting Costs, Not Corners

Change before you have to.
Jack Welch

What defines Managed Print Services? The details vary from case to case, but in general, MPS involves the use of an external provider to analyze, produce and manage document output.

The first step—a Lean Six Sigma assessment of print assets—is usually an eye-opener. At Xerox, we deploy tools across the client's network to locate each asset and evaluate its usage: How often are you printing? How many supplies are you ordering? How frequently do printers break down? Slowly, we move the client from zero visibility to a view that rivals Google Earth.

Then we analyze the information to reveal what the client is actually spending. It's a number that often elicits a response somewhere between surprise and shock. Guided by these metrics, we begin implementing efficiencies that can include:

- Removing workflow steps to streamline processes and make people more productive
- Minimizing the handling of information to reduce error rates and prevent lost documents
- Digitizing hard-copy documents to enable shared, real-time access
- Employing technology to automate inefficient manual tasks
- Exploring the use of outsourcing or offshoring.

Obviously, I've simplified a highly variable process. But the outcome is consistent: fragmentation and silos disappear, replaced by structured, centralized print management that often delivers immediate cost savings of 20-30 percent.

It's not surprising that Quocirca summarized the advantages of MPS in this way:

> Managed Print Services offer organisations the opportunity to control costs, reduce the complexity of managing a heterogeneous infrastructure and improve business processes. With many organisations striving to do more with less, MPS can cut both capital and operational expenses. Now is the time to tackle the huge cost and productivity drain represented by an unmanaged print environment.[3]

How KeyCorp Unlocked Hidden Savings

Whether working with an MPS vendor or managing printing in-house, you can cut costs by transitioning from a traditional technology procurement strategy, which emphasizes lower component costs, to a centrally managed service, which focuses on reducing total cost of ownership (TCO). That's the initial step KeyCorp, the Fortune 500 financial services firm, took when their printing infrastructure became difficult to manage and control.

"We didn't have a clear picture of what our true print costs were," says Angie Masini-Sloan, Vice President and Director of KeyCorp's Enterprise Technology Client Services. "The utility model we implemented … has really enabled us to get more control over our document management resources and spending."

The print costs generated by KeyCorp's 985 branches ended up being 50 percent higher than the company had estimated. Once the streamlined solution was in place, however, KeyCorp realized significant operational savings. Additionally, paper consumption decreased by 30 percent and the employee-to-device ratio improved from 1.5 to 1 to 5.4 to 1.

KeyCorp is not alone in leveraging the strengths of unwasteful document services. Reuters, the global news agency, employed MPS to reduce Total Cost of Ownership by 20 percent. Carillion, one of the U.K.'s leading construction companies, generated savings of about a million dollars in the first six months. And through better document device management, Baptist St. Anthony, an award-winning VHA member, reduced print-related costs by 90 percent.

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12 Questions to Ask Potential MPS Vendors

If you are considering an MPS solution, this list of questions can help you evaluate potential vendors:

1. What processes will you put in place to drive down output costs?
2. What proof do you have that your processes work?
3. Are your operations global in scale and do they offer 24/7 service?
4. What measures will you use to monitor cost reduction and provide projections?
5. How will you maintain output quality and equipment availability?
6. How will you monitor end-user satisfaction?
7. What evidence do you have that your solution will serve us well—and devices will be used to their fullest advantage—over time?
8. Can you accurately provide product-related metrics? How?
9. Where is your support network located, how many people are involved and how does it adapt to different cultures, languages, etc.?
10. What are your disaster recovery plans?
11. What experience do you have with MPS and how many devices are currently under contract?
12. What MPS innovations have you developed?

The Far-Reaching Impact of Smarter Document Processes

It's the little things that make the big things possible.
J. Willard Marriott

There's a tree at Echo Caves in South Africa with roots that reach 400 feet into the ground, the deepest any roots have ever penetrated. Think of that tree's trunk and branches as your documents and their production. Now think of its roots as the workflow processes related to your documents. What you see above the surface—document creation, printing and distribution—is nothing compared to the complexity hiding below.

That is why fragmented document production is only part of the cost reduction story. Inefficient document processes fill the other chapters. At a much greater expense.

There is dollar consumption at every stage of a document-driven process, whether the documents relate to accounts payable, benefits processing or product development, e.g. processing costs, mailroom costs, the costs of tracking documents, overall management costs.

To capture and trim those expenditures, it's essential to map the end-to-end flow of a document—how it moves and the costs it creates along its journey.

Clarifying the Role of Documents

Try to envision a business that doesn't rely on digital or hard-copy documents. It's nearly impossible. As mentioned earlier, documents are involved in everything from accounting and product engineering to compliance and customer service. Yet document management is often inexpedient, underutilized or—like printing—decentralized. It's not uncommon for companies to rely on outdated, ineffective document processes simply because "We've always done it that way." Current business directions only confound the situation. A quick snapshot of virtually any trend reveals a blurry document process in the background. Mergers and acquisitions lead to awkwardly integrated document workflows. Workforce reductions stretch the idea of document-related multitasking to the point where doing too much means too little gets done well. And global expansion can twist a simple document task into a Rube Goldberg contrivance.

Therefore, it's beneficial for any enterprise to step back and ask a critical question: Do documents play an important role in your organization or do they represent your core business? Unless you're a publisher or a company like Xerox, the answer is probably "important role." For the vast majority of companies, document management isn't a core competency. Documents aren't what the company does, they're the tools that help the company do it. That being the case, every minute an employee spends managing a document is a minute stolen from the enterprise's essential business.

Granted, you can't engineer document interactions out of the workday. Nor would you want to. But you can manage documents better, particularly if your document-related processes are inconsistent and scattered. That's what Marriott International Inc. discovered when they standardized accounts payable throughout their organization.

Prior to implementing the payable efficiencies, this global lodging leader relied on a time-consuming, paper-based process to manage 2 million invoices each year. The process varied from one Marriott organization to another, with each group developing its own approach. As multiple in-house imaging operations sprang up worldwide, Marriott realized that its guest service expertise was being squandered on document management. That's when the company's Information Resources team checked in.

This visionary group incorporated Accounts Payable into Marriott's emerging Shared Services model. All mailroom, imaging and content management functions were outsourced to a global network of Shared Service centers. In addition, AP workflow was fully reengineered. Time-consuming steps were replaced by automation. Processes were redesigned to exploit new digital technologies. Invoice processing capacity was quadrupled. And a paper-laden workstream soon became virtually paperless.

Thousands of users throughout Marriott now log invoice data into a central Enterprise Resource Planning (ERP) system. When they tap Send, the document "arrives" at a service center for imaging and hosting. Once there, it's available to all authorized users for review and processing.

"We're saving on labor and technology," says Michael Cullen, senior Vice President for Marriott Business Services. "We're getting better reporting and more control. And it's helping hotel managers spend more time taking care of our guests."

Rethinking the Document Status Quo

Chains of habit are too light to be felt until they are too heavy to be broken.
Warren Buffett

The recent economic crisis is forcing companies across industries to look deeply at the areas in which their organization generates spend, employing aggressive measures to drive returns. Whether exemplified by a hiring freeze or an investment partnership, the mantra is "Do more with less." And the search is on for innovative ways to make it happen.

Streamlined document management processes can help. They reduce the costs associated with workflow redundancies, outdated practices, prolonged business cycles and the other obstacles mentioned throughout these pages. Additionally, when document processes are outsourced, savings extend to capital equipment, IT support and staffing, not to mention the cost-efficiencies of best practices, economies of scale and state-of-the-art technology.

Let's use Creative Services as an example. Companies frequently rely on a variety of Creative Services firms to create and disseminate documents: High-end brand strategists. High-priced ad agencies. Design firms. Freelancers. In-house graphic specialists. In short, a large number of service providers operating independently, each with its own price tag.

The result is an onerous bundle of direct and indirect costs—everything from hidden project management fees to agency markups, which can range from 20 to 60 percent. You might also incur the expense of reusing your own materials, harshly discovering who really owns your company's digital images and print files.

In situations like this, it's difficult to focus on document spend because it's not managed by a single, C-level executive. It's spread across many departments, with expenses allocated along multiple budget lines. This lack of transparency makes costs difficult to evidence and therefore impossible to control in a meaningful way.

Perhaps that's why more companies are outsourcing their document services and processes. According to IDC, outsourced print/imaging services in the United States are expected to grow at a compound annual rate of 9.8 percent from 2009-2014, with Canada outdistancing the United States at 16.9 percent and Asia/Pacific (excluding Japan) coming in at 15.9 percent.[4] Companies that outsource can centralize and control their documents in order to gain the savings and cost-efficiencies mentioned above.

Or enterprises can rethink what they're doing in-house. One global communications company we worked with shaved more than 40 percent off their document production expenses simply by replacing external agencies with an internal creative services team and a shared, digital repository. That number is not uncommon, inside or outside of the Creative Services arena. We typically see results like those of a global financial services provider who realized $1 million in savings after enhancing its insurance verification process with an advanced data capture system and an expanded employee team.

Even public sector organizations, traditionally reluctant to embrace external process management, are realizing the benefits of improved document workflow. As state and local governments continue to wrestle with debilitating budget cuts, they are discovering that prudent document management can mean greater cost-efficiencies for their agency and better service for U.S. citizens.

Using eHealth Documents to Sharpen the Point of Care

The best way to predict the future is to invent it.
Computer Scientist Alan Kay

My friend Chris, who is allergic to penicillin, was having problems with his knee. As he explored his therapeutic options, he was passed from one medical group to another. A GP. A nurse practitioner. An orthopedic surgeon. A sports medicine expert. A physical therapist. Countless administrative assistants. Everyone asked the same questions, including "Any allergies?" He repeated the word "penicillin" so often he began to worry that no one was paying attention to his records. By the time Chris was admitted for knee surgery, his growing wariness had prompted him to scrawl "It's this one" across his kneecap.

My buddy Chris had it wrong. He was dealing with some of the finest care providers in the Northeast. They were all paying attention. They just weren't sharing information. Fortunately, advancements like Electronic Medical Records are rendering these health care disconnects obsolete.

One Medicaid client is witnessing this firsthand with its eHealth initiative. Like many programs, they suffered from disjointed health care information. Crucial patient data was unavailable at the point of care, trapped within the silo of each practitioner's individual patient files. As a result, treatment was inefficient or incomplete. Tests were repeated. Therapies were sometimes contradictory.

They developed a suite of Electronic Health Record (EHR) applications, supported by a comprehensive clinical rules engine and e-prescribing. Providers now have real-time access to complete patient records from all involved caregivers, including medications, inpatient and outpatient encounters, diagnoses, tests and other critical data. Gaps in care are identified using evidence-based medicine guidelines. Alerts are issued for potential adverse drug interactions. And physicians can readily monitor who's following doctor's orders by tracking things like filled/unfilled prescriptions and follow-up appointments. It is not an understatement to claim that this organization's eHealth program is helping to save lives. In doing so, it has also saved $280 million over 4 years.

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8 Questions to Ask Yourself about Outsourcing

With all the ambiguities around the cost of document production and management, it can be difficult to know if an outsourcing solution would be beneficial for your organization. Here are a few questions that can help with the answer:

1. How central is document management to your mission?
2. Are your documents core competencies that deliver a unique value to your customers and stakeholders?
3. Is your approach to document management based on a sound strategy or on a history of "This is how we've always done it?"
4. What are the knowable costs of your enterprise-wide document management, including staffing, technology and processes?
5. Are you satisfied with your current approach to document management in terms of efficiency, cost, quality and ease?
6. Could you benefit from reallocating document management resources to more mission-critical tasks?
7. Is there room for improvement in the way your document processes support your business operations? If so, how easy would it be to implement the improvements?

8. In what ways could outsourcing reduce your costs and risks and improve your organization's flexibility and agility?

If your answers reveal areas where outsourcing might cut expenses, add efficiencies or free enterprise resources to focus on core operations, it's worth continuing the outsourcing conversation internally and externally.

The Future of Document Cost-Efficiency

The products of innovation are even more valuable during tough times.
Prof. Andrew J. Razeghi, Kellogg School of Management

Digital and hard copy documents touch virtually every corner of the modern enterprise. It's clear that they will continue to do so. Therefore, document management grounded in the industry's best practices is essential.

When documents are produced and managed with optimal proficiency, productivity soars and costs plummet. Equally important, valuable resources can be reallocated around the mission of the business. Employees can begin working with documents, rather than feeling like they're working for them. Dollars that were spent on counter-productive processes can be redirected toward strategy.

The organization as a whole also benefits. It becomes a leaner, more nimble force that can quickly adapt to change—an invaluable asset in today's evolving economic landscape. One glance at a recent CNBC Cost-of-Doing-Business survey[5] quickly confirms the point. Three of the highest cost states in 2009, Hawaii, Alaska and Maryland, actually became more expensive in 2010. Amidst ongoing financial unpredictability—and vigorous competition—it's more important than ever to control the costs that can be controlled.

Whether related to a departmental workstream or an enterprise-wide process, smarter document management offers a clearer view of expenses and a proven means of reducing them. Furthermore, organizations that manage documents well are better positioned to manage customers well. And that's what matters most. Because, when all is said and done, the true benefit of streamlined document management isn't spending fewer dollars, it's spending more time on your business and the people it serves.

Reducing Industry Costs:
Medco and Health Care

While many companies employ document management to reduce their internal costs, Medco Health Solutions, the nation's leading pharmacy benefit manager, is streamlining document processes to support a larger mission; reduce the cost of U.S. health care.

In 2006, the company implemented an enterprise-wide strategy to manage the documents of its 60 million members and large physician network.

The strategy began with a Lean Six Sigma assessment of Medco's print infrastructure. The number and type of print devices was streamlined. Core processes were outsourced to Xerox. Explanation of Benefit forms for existing members were reengineered for clarity. Enrollment and "onrollment" for new members was streamlined. Hard copy documents were digitized and centralized.

The savings that resulted are enabling Medco to fund investments for advanced print design, digital document libraries, composition services, output management and other game-changing capabilities.

Greater Care, Compliance and Cost-Efficiency

Two of the many ways Medco is realizing cost-efficiencies while helping its members include:

Decreasing drug expenditures through lower cost generics delivered via mail order. Medco's document management improvements made it easier to ship prescription drugs with accurate instructions, curtailing costly call center questions and protecting against patient errors.

Helping patients manage chronic illness through collaborative Therapeutic Research Centers that involve pharmacists and doctors. These call centers draw on document content to ensure the correct prescription and to encourage patients to take their medication, keep appointments, follow protocols and lead healthier lives, decreasing long-term drug costs and promoting better outcomes.

In addition, Medco is exploring ways to contribute critical information to Electronic Health Interchanges. The company's rich store of data harbors valuable insights into the efficacy and evolution of prescription drugs. If this critical information can be securely shared with physicians and pharmaceutical manufacturers, it may help generate countless new therapies and cost-efficiencies.

The company has also recently begun developing a new communications delivery platform that will enable Medco members to receive information the way they want it. Members will be able to personalize their prescription drug management information and communications delivery channel, choosing from traditional mail, a secure web site, email or text message alerts.

Taking out the Waste

In essence, Medco is eliminating much of the waste involved in health care. Each year, an unfathomable amount of money is lost on incorrect therapies, missing information, inaccurate claims and other errors. By strengthening controls, Medco is minimizing these mistakes—and their associated costs.

In the end, everyone's burden is lighter: The personal burden of patients. The customer service and compliance burdens of Medco. And the financial burden on the health care system, providers, members and their employers. All because Medco manages its documents well.

"Virtually every aspect of the pharmacy health care process—from the prescription to the patient communication—is mired in a legacy of paper documents," said Medco President and Chief Operating Officer Kenneth O. Klepper. "The future belongs to the speed, flexibility and adaptability of digital processes and the efficiencies of digital documents."

Endnotes

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Mitigating Risk, Maximizing Protection

Let's start with a mystery.

Carol, a call center rep, is having a hectic morning. One call barely ends before another begins. As Carol warmly greets the next customer, she remembers it's her sister's birthday. She reminds herself to call her sister later that night. A note would help, but Carol's company has a "clean desk" policy. Carol's work surface has no pens, pencils, papers or other means of capturing confidential information.

The customer, a friendly woman named Lorraine, provides Carol with her basic transaction stats—name, account number, Social Security number. Carol's fingers fly across the keyboard, completing a secure e-form. Fortunately, Carol's system masks Lorraine's information so it doesn't appear on screen for long. Carol explains to Lorraine that all customer data must be verified and places her on hold.

During those free seconds, Carol considers leaving herself a voice mail reminder about her sister. She dials her own cell phone number, rattles off a message and returns to finish the customer transaction. A few weeks later, money begins disappearing from the customer's bank account and fraudulent charges cram her credit card bills.

So whodunit?

One of our clients was forced to ask the same question when a similar situation actually occurred. Like most companies with support centers, the client recorded its inbound calls. As an extra precaution, they also taped outbound communication.

The client discovered that when "Carol" called her cell phone, the message she recorded was Lorraine's name and social security number. Because of that, Carol now makes her phone calls from behind bars.

This situation is frighteningly common. According to a 2010 security report from Verizon and the U.S. Secret Service, 48 percent of data breaches are caused by insiders.[1] While Carol didn't officially hack into her company's system, her actions were emblematic of one of the most significant issues facing today's businesses—protecting the organization, its information and its customers.

Vulnerability in 3-D: Digitization, Distribution, Devices

There are a number of factors contributing to the vulnerability of today's enterprises. In his best-seller, *The World is Flat*, Thomas L. Friedman enumerates several, including the PC revolution, connectivity and outsourcing.[2] Any reasonably informed Internet search will reveal countless others.

To keep things simple, I've boiled it down to three. The first is digitization. There's no doubt that digital documents provide greater efficiency and flexibility. Information can be processed easily. Access can be expanded. Workflows can be streamlined. But those benefits yield a higher security risk. When you make something digital, in a sense, it lives forever. The minute you forward an electronic form or post a note on Facebook, you've relinquished your control. Without the proper precautions, you're practically inviting others to make your information their own.

In addition, because so much information is now digital, the responsibility for enterprise protection has shifted from areas like the legal department and security personnel to the IT group. This transition makes security more of a proactive endeavor, less about "How do we address what happened?" and more about "How do we stop it from happening?"

Factor number 2 is aptly summed up by Friedman—an open, distributed world that keeps "flattening." Business operations today expand far beyond the border of a single building. Or region. Or country. Whereas in the past, "pieces" of work might have been outsourced, the modern workflow is frequently a seamless global stream stretching across cities and continents.

It is not unusual for a supply chain to start in California, jump to New Zealand and wind its way through China before ending in London. These far-reaching walls of business are diaphanous at best, which makes it easier to peek inside or quickly slip out with trade secrets.

Finally, as an effect of flattening, endpoints are migrating outward and multiplying. No longer tethered by wires, digital devices such as laptops, phones, tablet PCs and multimedia systems can be used virtually anywhere by almost anyone. And it's a rare individual who possesses just one. The closer these devices get to the edge, the farther they are from your control.

What's more, endpoints keep getting smarter, offering more apps and therefore, more access. Up until the first commercial camera cell phone was introduced in 2000, phones that took photos only appeared in James Bond films. Now, 76 percent of adult cell phone users snap pictures of friends and family.[3] Or, in some cases, of confidential business information.

Clearly, the pre-Internet days of hardwired terminals linked to a secure internal network alongside landline phones are over. Business boundaries—and correspondingly, security perimeters—have vanished. Meanwhile, content at the edge continues to explode, ignited by trends such as cloud computing and social media.

As a result, your enterprise must work harder than ever to protect its assets and customers. But where do you begin? The whirlwind of information—product information, business information, social information—never ceases. How do you assess it for risk? Or determine who has access to your information if you can't tell where it is? Or ensure that your clouds of data aren't obscuring a smoking gun?

Documents: Where the Treasures are Buried

In one of the most famous of all U.S. security breaches, Deep Throat helped Woodward and Bernstein solve the Watergate puzzle by encouraging them to "follow the money." Today, he might say, "follow the document."

Why? Because documents are the primary business vehicle for capturing and managing information.

At the first Xerox security summit, one of our speakers recounted three real-world examples of corporate espionage:

- A researcher at a large medical firm working on the DNA model for Alzheimer's disease was secretly providing data to a foreign neurological center.
- A mole at a global adhesives enterprise entering the Asian market was stealing information for almost a decade.
- A disgruntled employee at a multinational energy conservation company was faxing research to competitive firms.

In all three cases, documents were at the core of the crisis. Documents are just as central to identity theft, which would be virtually nonexistent if identities weren't initially captured in documents.

Safeguarding documents and their content is mandatory. But the protection of the processes that surround documents is no less critical. Without both, you're locking the crown jewels in a safe without installing a castle-wide security system.

By tracing the flow of a document—including its multiple stops and starts—you can begin to discover the potential for leakage. You need to understand every step in a document's creation and routing, as well as its content owners and reviewers, storage locations, access trajectories, surrounding events (such as Carol's call center conversation) and so on.

For a recent, disheartening example, look no further than the quarter-million U.S. diplomatic cables involved in the WikiLeaks scandal. Although many of the documents were classified—

including 11,000 designated "secret"—over 3 million government employees had access to the information.[4]

Which leaves you wondering—if the U.S. government can't put the right security measures in place, what chance do the rest of us have?

Recognizing the Weak Spots

Contrary to what you might think, data breaches at U.S. companies are actually decreasing. That's the good news out of the latest PGP-Ponemon Institute study.[5] However, companies are becoming more reluctant to report a breach, so whether the decrease reflects incidents or incident reporting is up for debate. Regardless, the bad news is that costs per incident are going up, reaching an average of $6.75 million.

These costs represent everything from initial detection to customer defection, plus considerable legal fees. The most expensive breach in the study consumed nearly $31 million. The least expensive wasn't exactly a bargain, coming in at $750,000.

"U.S. businesses can't afford to ignore protecting the valuable, sensitive data they have been entrusted with," says Philip Dunkelberger, president and CEO of PGP Corporation. "Companies whose data is not protected are not only facing expensive direct costs from cleaning up a data breach, but also a loss in customer confidence that has long-lasting ramifications."[6]

The impact of a breach can result in devastating short and long-term consequences. It's not just your information and balance sheet that are at risk, it's your reputation. And reputations can be a lot harder to restore than data files.

Therefore, it's a rare company that doesn't have some form of document-related security in place, usually antivirus software at a minimum. But it's equally rare to find a company with a truly comprehensive security solution, from strategy and tools to education and governance.

When we audit the technology and workflow of new clients, we uncover many recurrent security vulnerabilities. Here are four of the most common, along with the combative measures being deployed by visionary enterprises.

Weak Spot: Underestimating Output Devices

Weapon: Device and Document Controls, Both Basic and Innovative

Most firms don't think twice about securing their PCs and network, yet they overlook their copiers, faxes and multifunction printers. When that happens, these—and other—output devices represent a triple threat to security. First, many are actually servers, linked to a company's network. Second, some house hard drives, which store electronic images of their output. Third, a good number are called upon to generate hard copies of highly confidential information—sometimes legally, sometimes not.

From a network perspective, these devices look like every other powerful computer node. Therefore, the first step toward addressing their security issues is to view the devices as network endpoints, demanding the same protection as any other node. Employees should be required to enter user IDs and passwords just as they would with any network computer.

The second is to leverage device security technologies, such as removable hard drives, internal firewalls and tools for overwriting or erasing data. Some are built-in, others are purchased separately, often at a moderate price. When leasing or buying output devices, it's critical to insist on such features. It's equally essential to inquire about the vendor's own security procedures as well as their compliance with IT security standards such as CCC, Common Criteria Certification. For example, a leasing vendor may let you purchase a device's hard drive upon termination of your contract. Or the drive may be crushed and replaced.

Device vendors like Xerox also offer innovative technologies specifically designed to make hard copies more secure. For instance, our DataGlyphs® symbology encodes machine-readable data into the gray areas of photographs and our GlossMark® technology embeds a hologram-like image onto the surface of printouts to prohibit reproduction.

While these tools may sound like something out of *The Matrix*, they've been available for a number of years, as have features like audit trails, which provide a detailed record of device use. More recent advances include embedded Radio Frequency Identification (RFID), which makes it difficult to remove a document without triggering an alarm, and "intelligent redaction," which keeps documents accessible, but limits sensitive content to those with a special passcode.

Another protective measure involves outsourcing document production and management to a trusted vendor. Through this strategy, you're able to benefit from the latest security technologies without a major capital investment. You can also implement a consistent set of enterprise-wide controls.

Equally valuable, outsourcing firms offer a big-picture view of devices and workflows, keeping you apprised of who's using which devices at what time and for what reason—crucial information in the event of a breach.

Weak Spot: Incorrect Assumptions and Inadequate Protection

Weapon: Thorough Assessment and Expanded Security

It's amazing how many organizations believe they're well protected because they have anti-virus software. Even when they have outdated antivirus software.

A continual review of your security solution to ensure currency isn't a "nice to have." It's a "must have." Just as the flu virus changes from season to season, so, too, do computer viruses. But computer "seasons" shift in a nanosecond. Without updated virus protection, you're fighting this year's influenza with last year's vaccination.

To continue the analogy, keep in mind that a flu shot alone won't protect you. You need a sensible diet, a good night's sleep and, if my Irish grandmother is to be believed, a hand-knit hat and gloves. In the desktop security world, that translates into protection against viruses and malware, spyware, spam and other potential network intrusions. In fact, in the most recent CSI (Computer Security Institute) Computer Crime and Security Survey, malware infection was the most commonly seen attack, reported by 67.1 percent of respondents.[7]

Of course, any solid assessment of document security should look beyond the desktop to the network itself. Are servers patched and up-to-date? Are demarcation points shielded? Are employees using Skype, instant messaging, peer-to-peer communication and other firewall jumpers? Applications must come under equal scrutiny, whether off-the-shelf or proprietary. If a hacker cracks an application, he or she could gain route access to a database, which is the electronic equivalent of handing over the keys to the kingdom.

During our assessments of client infrastructures, we'll often attempt external penetration of the network as a normal course of events. Sometimes, we'll even replicate the attempt in the physical world.

We're also able to provide clients with a risk-based ranking of potential threats. Our analysis incorporates general information—data from U.S. security agencies, patterns we see emerging across our clients' networks, hacker trends—plus client-specific information, such as the company's technology, education programs and C-level commitment to security. As a consequence, the client receives a predictive profile that details the likelihood of each security event as it relates to an organization of their size, in their industry, with their particular infrastructure and issues.

Ten years ago, network attacks in the U.S. may have numbered around 10,000 each year. Today, ACS, A Xerox Company sees about 100,000 a month, with 25,000 new vulnerabilities identified in that same time period.[8] Many can be prevented. 85 percent of the attacks referenced in the Verizon/Secret Service report were not considered technically difficult. 96 percent of the reported breaches could have been avoided with simple or intermediate-level controls.[9]

Now is the time to reexamine and fortify your security solution. Fighting back may be less difficult than you think.

The Attack of the Zombie Computers

You gotta ask yourself, are you a fighter … or are you zombie food?
From the 2003 film, Undead

Zombie computer attacks are not like zombie attacks in the movies; they're not after blood. They want to disrupt your entire business. These remote-controlled hijackers can flood business websites causing denial of service for legitimate customers. They can spread spam and viruses and conduct other maleficence—all without a computer's owner ever realizing it. These frightening adversaries are relentless and innumerable.

Fighting these attacks is analogous to opening the front door to millions of zombies while armed only with a rifle. You have to dispatch them one-by-one while the zombies are all around you, seething in the dark.

That's essentially what ACS did when the website of a major client was attacked. It was part of an assault on the automobile industry. ACS fought through the swarm, established barricades and dispatched every threat. But as fans of the genre know, new strains of zombies are certain to rise up. And that's the real horror in the online battle theatre.

Weak Spot: Lack of Phishing Knowledge

Weapon: Authentication Layers and Employee Education

By now, you've probably heard the term "phishing." If you haven't, imagine a wide net being cast over thousands of network users, then tightening. Now imagine that the net is squeezed with such force that money pops out of the victims' wallets. Here's a typical example:

You—and countless others—receive an email from a bank telling you to update your account. The email has a link. The link leads you to a page that looks exactly like your bank's website. You're asked to enter your password, Social Security number and other account information. Feel the net closing in?

The site is fake, of course, an exact replica of your bank's Web presence, right down to its logo and tagline. Sometimes called "spoofing," it's the old Nigerian letter scam wrapped in a cloak of bits and bytes. Recently, a more targeted version called "spearphishing" has emerged. Spearphishing uses a smaller net that is harder to detect. With spearphishing, you receive a highly specific email that appears to be normal. For example, it might replicate your company's email format or include co-workers' names in the distribution list.

Sometimes, phishing is used simply to terrorize a network. We recently helped a client address a major phishing crisis caused by a disgruntled outsider. Employees received an email informing them that a document awaited on a sharepoint site. All they had to do was click the embedded link. 25,000 did. Their actions released a Trojan that penetrated the client's network, invaded email lists and spread like an electrical fire, quickly bringing the network to its knees. We carefully brought it back up.

One way institutions—particularly those managing personally identifiable financial information (PIFI)—are fighting phishing is by building multiple layers of authentication that are difficult to replicate. The first screen asks for your name. The second requires approval of a familiar photo. The third requests your password. The fourth asks for your oldest sibling's middle name. It's like surrounding a moat with barbed wire behind a brick wall inside a mountain range. Or, as the security pros call it, defense in depth. Confidential information remains protected and users are "trained" to expect a security sequence.

User responses to phishing scams can be difficult to predict. Therefore, it's best to prepare. We always recommend formal programs for educating employees about phishing and its consequences. Security tools can aid in limiting an attack, but ultimately, it is the user who decides whether to click. User training needs to be a major component of any security solution, particularly in light of the next menace.

Weak Spot: Insider Threats

Weapon: Data Loss Prevention Technologies

"Most security breaches happen from inside the organization." We've all heard the claim. But it's a myth. As mentioned earlier, inside attacks account for less than half of all breaches. However, they're responsible for the majority of enterprise data theft. Why, if fewer in number, do they have a greater impact? Because they're insidious and internal.

You can brace yourself for the attack of an angry stranger, but how do you prepare for the betrayal of an ally? Even Julius Caesar was caught off guard.

One answer lies in Data Loss Prevention (DLP) technologies. DLP tools operate like sentinels, surveying your network for unusual actions and typical fraud-related behaviors. This is particularly useful for protecting intellectual property and defending against identity theft.

For example, a DLP system might:

- Highlight suspicious actions, such as an employee making excessive copies or sending volumes of email to himself before leaving the company for a new job.
- Call attention to behaviors that don't align with corporate authorizations or to patterns that are indicative of fraud, like an operations manager repeatedly accessing corporate financial data at 2 a.m.
- Release a trigger when sensitive document content—a bank routing number or a key engineering spec—is included in an email.
- Create an audit trail of device usage, including user name, date and time.

More than simply activity monitors, DLP technologies can also spring into defensive action. For example, they can automatically encrypt confidential information left unsecured by a user. Or block network traffic.

But technology can only address part of the problem. The ultimate endpoint is a human being. The value of employee awareness and education cannot be overstated. As one security expert once said to me:

"You can't run a business without trusting somebody. Trust is key to success. So we trust, educate and verify."

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8 Ways to Immediately Improve Your Security

1. Assess the comprehensiveness of your endpoint security (desktop devices, smartphones, flash drives) by reviewing your protection against viruses, spam, malware, etc.

2. Assess protection at the network layer. You should have either an intrusion prevention system (IPS) or at the very least an intrusion detection system (IDS), along with basics such as firewalls and network authentication.

3. Review the security and vulnerability of your output devices, including physical components (hard drives), security features (data erasure), usage, network connections, compliance and, if leased, vendor security procedures.

4. Make sure your complete security infrastructure—from antivirus software to document technologies to network pathways—is updated.

5. Educate your employees about threats like phishing through formal training and internal awareness programs. And remind them about the importance of internal compliance in protecting against inadvertent security breaches.

6. Create a checklist of crucial security program elements, including reporting, accountability, policies, technologies/processes, controls, awareness programs, physical components, reviews and incidence response.
7. Open up the C-level conversation. CIOs and CISOs should talk to their peers about dollars and risk, not terabytes. CEOs, COOs, and CFOs, in turn, should take an active role in security and not view it as "IT's job."
8. Monitor your security strategies and solutions on a constant basis. Security isn't a destination, it's a journey.

Compliance: The Other Side of the Risk Coin

You have two groups of individuals you really need to worry about—the criminally minded … and the loyal, law-abiding employees who on a day-to-day basis are handling your sensitive information in a way that makes it vulnerable to inadvertent disclosure.[10]
Dan Verton, Executive Editor, Homeland Defense Journal

Security is about people trying to steal from others or wreak havoc across a network. But there's a harder-to-quantify threat that causes comparable harm: noncompliance. Enterprises don't realize just how potentially dangerous a document can be when it's an integral part of a compliance process.

As regulations continue to increase and the lure of litigation shows no sign of waning, it's more important than ever for organizations to comply with government and industry mandates. Not doing so can expose an enterprise to litigation and risk, especially in industries that deal with personally identifiable information (PII) or health data. But virtually all industries are affected.

According to Ernst & Young's most recent report on the top 10 global business risks:

> The most important business risks for 2010 are concentrated in the areas of regulation and compliance. Many of these threats are related to the aftermath of the global financial crisis. Asset management, banking and to a lesser extent, insurance are facing a political backlash and regulatory overhaul following the global financial crisis.
>
> Oil and gas, real estate and mining and metals are contending with efforts by cash-strapped governments to gain revenues. And public sector organizations must cope with knee-jerk decisions made by political leaders under pressure.[11]

The culprit behind an information security breach knows exactly what he's doing. But the employee that creates a compliance issue may be completely unaware of his actions. In some ways, that's more dangerous. We all admit that mistakes can happen and delays are sometimes unavoidable. But the consequences of the inadvertent can be just as costly as those of the intentional:

- Failure to adhere to COBRA's provisions costs $100 per person per day ($200 if more than one person is affected), with the maximum penalty of $2 million per year.[12]
- Failure to comply with HIPAA will cost you $100 for each violation, with wrongful disclosures leading to a $50,000 penalty, imprisonment or both.[13]
- Failure to report the public health risk of a chemical substance to the U.S. Environmental Protection Agency results in a $32,500 fine for each violation.[14]
- Failure to follow Sarbanes-Oxley can result in multimillion-dollar fines, the loss of your exchange listing and imprisonment (up to 10 years if you're a CEO or CFO who submitted a wrong certification; up to 20 if submitted willfully).[15]

These fines represent noncompliance, but there are costs involved in compliance, as well, such as legal fees and document processing expenses. Not to mention the cost of delays and mistakes—the consequences of a missing form bearing confidential information or the inability to produce regulatory documents in a timely manner.

For instance, even a one-day delay in the production of the instructions for a new biomedical device can cost a company thousands of dollars. If the IFU (Instructions for Use) is rife with mistakes, it might also cost the company its CE (Conformite Europeene) mark or FDA approval. The same holds true for the approval of new drugs—every lost day equals lost dollars.

Using Documents to Ensure Compliance

Where do documents fit with all this compliance madness? Pretty much everywhere. Compliance management is information management—and we all know where most information resides.

Yet most managers and employees don't view documents as a risk. Documents need to be thought of as almost radioactive—incredibly destructive if not handled properly. Here are four simple document compliance scenarios that help illustrate the point:

Your company's annual report is ready to be released. The CEO rewrote his letter five times and the CFO made some last-minute adjustments. Were their changes made in the same document? Did they both approve their updates? Did anyone access the document who shouldn't have?

Your sales reps are on the phone processing credit card transactions. Are their actions compliant with the payment card industry's security standards? Can employees print sensitive data? Does information remain on-screen if a rep leaves to ask a co-worker a question?

The OSHA inspector asks to see your injury/illness log and questions some of the dates. Is the form current? Has it been filled out according to procedures? Does it have the proper certification?

You're sending patient records out for statistical analysis. Did you remember to include the Medicaid patients? Was everyone's personal identification information blocked or removed?

These are just small, individual examples. Project them in great numbers throughout the enterprise and the magnitude of documents' compliance influence becomes apparent. Documents are the core of compliance (e.g., secure PIFI content) and they fill the edges (credit card application forms). They provide proof of adherence (OSHA injury/illness logs), plus the source of the proof (employee medical records). The greater your control and management of documents, the tighter your compliance.

Enterprises in all industries should be sensitive to the fact that document compromise presents a true compliance risk—one that's heightened by the vagaries of mobile and cloud technologies. Employees and managers need guidance, structure and tools to keep that risk as low as possible.

Picture the aforementioned annual report scenario with a tool like DocuShare® compliance software. DocuShare can track when and why changes were made, and by whom. It also enables simultaneous document review, with password-protected electronic signatures. So you can be certain that the CEO's changes were made by the CEO. And if the CFO wants to distribute AR earnings for a final look, DocuShare produces a read-only version of the content and tracks any attempts to inappropriately handle the material.

Or imagine the preceding health care scenario with the intelligent redaction feature mentioned earlier. If the employee had forgotten to hide sensitive information, the redaction tool would prevent statisticians from viewing that portion of the form. And with document tracking, the employee would know immediately whether he or she had included the Medicaid files.

Technology that lets you create document "chunks" can also be invaluable, particularly in insurance, financial services and health care. Let's say you're an investment firm making a major change to a mutual fund. The change needs to be communicated to a number of constituents—internal personnel, financial advisors, institutional investors, private investors. After multiple paragraph drafts, endless reviews and several compliance rewrites, a final statement is approved by all. That content chunk can be locked in place, stored online and made accessible through a global portal to any authorized user.

As a result, the official description of the fund's changes never varies. The language in a letter to investors is exactly the same as that in a PowerPoint presentation to institutional customers, which mirrors the content in a client services newsletter.

Minimizing Risk in Different Ways

- One of our government clients is helping to reduce business and personal risk through a Therapeutic Consultation Program. By closely monitoring patient documents such as drug claims, the program identifies patients who are out of compliance with treatment guidelines and helps prevent duplicate drug therapy. This not only aids personal health, but also has helped save millions in tax dollars.
- One of our hospitality industry clients is leveraging the power of automation to reduce risks related to workers' comp. The company imaged all of its workers' comp documents and files, enabling the organization to respond more quickly to claims, improve their risk management and in some cases avoid litigation.

Motion to Produce: The Value of E-Discovery

In December 2005, the Federal Rules of Civil Procedure made a small change that impacted the world in a big way. They redefined the term "record" to include email and other electronic documents. Since that day, the discovery process in litigation has never been the same.

Whether you're a lawyer, plaintiff or defendant, you bear the burden of producing all records related to your case. As noted before, that means searching for all relevant materials (including voice mails and instant messages), organizing them, storing them and sharing them for review—quickly and in compliance with court orders. This task is not getting any easier. In February, 2011, U.S. District Court Judge Shira A. Scheindlin held that the federal government must include metadata in Freedom of Information Act production because it is an integral part of public records.[16]

Scroll through the legal headlines of the last few years and it is not unusual to find companies settling cases simply to avoid the burden and expense of producing documents. Not to mention instances where firms lost their case or endured millions of dollars in fines because they failed to either preserve discovery materials or produce them in a timely manner. Better document management can keep you from adding your company's name to the list.

Many of the tools mentioned in these pages—digitized documents, workflow controls, BlitzDocs collaboration, intelligent redaction—can aid in e-discovery, helping locate, cull and manage volumes of complex legal data. Relevant documents can be isolated from nonrelevant. Files can be reviewed in tandem. Confidential information can be blocked from view in documents provided to the opposing side. And legal teams can spend less time grappling with documents and more time developing solid strategies.

Compliance without Trying (Almost)

As mentioned earlier, compliance comes down to one thing—information management. If you're terrible at managing information, you'll probably fail at compliance.

How do you stop that from happening? By implementing strong technologies, policies and governance at the departmental and enterprise levels.

If your documents and their processes are well controlled, efficient and accurate, you can sometimes achieve compliance without working very hard at it. You avoid issues like unknowingly violating privacy laws because of the way your information is organized and distributed. Or you circumvent the regulatory repercussions of product information that is inadvertently misleading. You also steer clear of the other potential catastrophes already discussed.

You no longer send out documents wondering if the content is correct and/or compliant. Employees no longer question whether they're legally allowed to share certain pieces of data. And compliance teams don't worry about missing pieces of information. Regulatory questions are asked and answered up front so that problems are minimized later on.

In the midst of increasing regulatory controls, it's hard not to view compliance as the bane of an enterprise's existence. However, it's also proving to be a boon to enterprise security. In order to adhere to standards such as HIPAA, the Payment Card Industry Data Security Standard and the U.S. state data breach notification laws, companies are being driven to strengthen their security processes and controls. In fact, in the CSI survey, more than half the respondents say that regulatory compliance "improved their organization" and half of them report that "upper management made security a higher priority."[17]

Whether you realize it or not, you may be locking more e-doors than ever before, simply because outside forces—both good and evil—are forcing your hand.

How Secure Are You about What's Ahead?

Perhaps the most frightening thing about the compliance and security risks of the modern business world is that they are destined to intensify.

New regulations, such as the recent Dodd-Frank Act, will bring new challenges. New technologies will arrive with new threats. Consumer access tools, like smartphones and iPads, will further penetrate the commercial world, unearthing new risk issues. What's more, an e-generation is storming the workforce demanding 24/7, open access. What impact will they have on the balance of freedom and security?

Regulations never stand still and technology is equally swift in movement. As recently as three years ago, security surveys like the ones referenced in these pages had no category for "social networks." Yet, 28 percent of the breaches in the Verizon/Secret Service report employed social tactics.[18]

Regardless of what's ahead, documents will remain key. Protect your documents and their processes and you'll protect the enterprise. To do so, you need to ensure that your organization has the right security solution. But don't get too comfortable in your security blanket. You need to remain agile and aware. Constant vigilance and nimble evolution are paramount. An independent Gartner, Inc. report on security sums up the first point well:

> There is no such thing as a perfect, universally appropriate model for security organizations. Every organization must develop its own model, taking into consideration major trends and practical realities.[19]

As for the second point—the importance of vigilance—few described it better than my grandmother when she quoted a famous Irish proverb, "It's no time to go to the doctor when the patient is dead."

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12

The Natural Business Impact of Sustainability

The "gold" that smart companies mine from being green includes higher revenues, lower operational costs, and even lower lending rates from banks that see reduced risk in companies with carefully constructed environmental management systems. They also reap soft benefits, from a more innovative culture to enhanced "intangible" value, credibility and brand trust.

Daniel C. Esty and Andrew S. Winston, Green to Gold[1]

The days of viewing environmental advocates as tree huggers are long over. Today, sustainability is a global issue with social, economic and environmental consequences. As a result, individuals and organizations worldwide are attempting to hold on to something much bigger than a tree trunk—the world as we know it.

This is evident in the very definition of the word "sustainability": the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. The reasons for pursuing sustainability are not only increasingly apparent, but also frightening.

According to the U.N., over the last 50 years, human activity has altered ecosystems faster and on a larger scale than at any time in history.[2] In addition, greenhouse gases are at record-high levels, destined to increase exponentially as developing markets continue to grow.[3] Natural resource consumption is also an issue, particularly as the global population expands and more nations improve their standard of living. If, for example, the entire world were to adopt the current Western lifestyle, we would consume the planet's resources three times over.[4] Even in areas of environmental progress, the challenges remain substantial. For instance, the U.S. has dramatically improved its waste reduction, yet we are still wrestling with the 60 percent increase in municipal solid waste that arose between 1980 and 2005.[5]

The good news is that eco-urgency has inspired people and businesses around the globe to make a difference. Present-day green developments include everything from recycling programs and packaging redesign to public-private partnerships and market incentives for decreasing greenhouse gas emissions. In all of these efforts, businesses are playing an influential—and growing—role.

From an Inconvenient Truth to a Business Imperative

For visionary CEOs, sustainability isn't a social movement, it's a core element of business. It's no more a fad than productivity improvement or revenue generation. As noted in a recent Gartner, Inc. report:

> Sustainability, including green IT, is about business value. It's a key competency and a transformation you can't afford to avoid any longer. Sustainability is growing in significance as we emerge from the recession financially damaged and more focused on risk, preparing for growth and the transition to a lower-carbon economy.[6]

Sustainability touches every area of business—manufactoring, product development, document management, energy use and more. It can be a component of compliance or a directive for production, a new revenue stream or a way to reshape the enterprise.

Take as an illustration, General Electric, which is developing future markets by investing billions in a strategy of "Ecomagination." Or Walmart, which has made reduced waste and improved efficiency a supplier mandate. Or Xerox, which has built product families around around recycled papers, remanufactured parts, and waste-reducing toner and ink. Or Toyota, whose Managing Director Hiroyuki Watanabe has said, "We have a basic notion that unless we find a solution for environmental problems, we will not achieve sustainable growth in the coming years."

Case studies from virtually every industry demonstrate that it's possible for earth-friendly initiatives to make a quantifiable contribution to both the environment and the bottom line. Combine those successes with the growing number of RFPs that have a sustainability requirement, the venture capital dollars directed toward alternative energy sources and the widening consumer preference for eco-friendly products and it's clear that being green can help you stay in the black.

Even in the face of adverse economic winds, sustainability allegiance remains strong. In a groundbreaking 2010 study of global CEOs conducted by Accenture and the United Nations Global Compact, 80 percent of the executives said that the economic downturn had raised the importance of sustainability. Furthermore, 81 percent stated that sustainability issues are now part of their company's strategy and operations. According to the study sponsors:

> As businesses address the challenges of the financial crisis, sustainability is being recognized as a source of cost-efficiencies and revenue growth. Additionally, many companies view sustainability as a critical element in driving growth in new markets.[7]

In addition, the survey's CEOs believe we'll reach a tipping point within a decade, fully meshing "sustainability with core business—in capabilities, processes and systems, and throughout global supply chains and subsidiaries."

The time to act is now. It is possible—even preferable—to enhance competitiveness by assuming greater environmental responsibility. Better document management can help. The key lies in the three pillars of document use: paper, printing and processes.

The Increasing Role—and Rolls—of Paper

In 1975, *BusinessWeek* ran an article that most of us today would consider fiction. It featured "the paperless office"—a concept linked to the growing popularity of PCs and other office automation tools. What happened in the two-plus decades following the article? Worldwide use of office paper more than doubled.[8] And it continues to increase today.

The average American office worker prints approximately 10,000 pages per year.[9] If the paper printed annually in the United States was stacked 10 feet high, it would form a wall that could stretch from New York to Tokyo, with 80 miles left to travel. Annual worldwide numbers are comparably staggering—in the vicinity of 2.2 trillion pages for 2010.[10] That's a lot of greenery and a lot of greenbacks.

Why, in a world that spins on a digital axis, is paper use growing? One reason is that paper has become more of a temporary medium. Almost half (44.5 percent) of the paper produced by office workers is for daily use, e.g., emails, Web pages and reference materials.[11] Rather than store hard copies, today's employees readily print, crumple and aim for a three-pointer in the trash can across the hall. As Abigail J. Sellen and Richard H.R. Harper succinctly put it in their book, *The Myth of the Paperless Office*, "We are not headed towards offices that use less paper but rather towards offices that keep less paper."[12]

Another reason for the surprising abundance is wasted paper in general. For instance, it is estimated that at least 30 percent of offset-printed materials go to waste (including those outdated brochures gathering dust in your warehouse).[13]

The impact of this paper explosion is twofold. From a business perspective, it expands your environmental footprint while restricting your bottom line. From a global perspective, the production of paper involves trees, water and energy. So both your environment and our environment are affected.

The Paper Edge: Saving More by Using Less

The 17th century German scientist Johannes Kepler observed that "nature uses as little as possible of anything."[14] When it comes to paper, your organization can follow nature's lead. The "paperless office" may be a dream, but an office that uses less paper is an achievable reality. Here are a few simple strategies that can help your organization get started:

- Use both sides of the sheet. Xerox was the first to introduce two-sided printing and copying (called duplex printing). By employing duplex printing as your enterprise's default setting, you can cut paper use by as much as half.
- Print multiple pages on one sheet. When employees are printing pages that have minimal text, large type or sizable graphics—such as PowerPoint slides—print multiple pages on each sheet. For instance, by printing four slides per page using the duplex option, you immediately reduce eight sheets to one.
- Be selective. Print only what you need when you need it, minimizing the waste generated by desktop devices and enterprise-wide printing services. And explore the use of external print-on-demand capabilities.
- Reach for the right paper. Look for papers certified by the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI) and Programme for the Endorsement of Forest Certification (PEFC), all of whom partner with companies like Xerox to promote responsible forestry management. Seek out recycled papers and eco-friendly stocks such as High Yield Business Paper, which uses a chemical-free pulp process to produce twice the amount of paper from the same number of trees.
- Recycle and reuse paper across the enterprise. Make it easy for employees to recycle or reuse paper by placing collection bins in convenient locations throughout the enterprise. Then start spreading a company-wide message of reduce-reuse-recycle.
- Go digital. Read, send and store documents in digital form. Scan early and often. This not only decreases costs and minimizes hard copies, but can also significantly improve document-related processes because information is more easily accessed, shared, distributed, reviewed and stored.

Most of these measures are pretty basic. However, the business benefits they generate, including cost reduction and greater productivity, are anything but. Which makes them easy wins. One of our clients who did nothing more than use default duplex printing while implementing an internal green campaign reduced annual paper use by 32 percent.

Other organizations, such as the U.S. government, are achieving benefits on a grander scale. For example, electronic cash cards will soon replace Social Security checks for citizens without bank accounts, eliminating the production, handling, distribution and storage of about 144 million documents per year.

If it seems as though your organization has squelched the spread of paper through its expansive use of technology, consider this—simply by connecting an office to the Internet for email alone, you increase paper consumption by 40 percent.[15]

Clearly, it's time to place "the paperless office" on the Fantasyland shelf, nestled somewhere between Oz and Utopia. But the concept of a "less-paper office" is genuine and attainable—and can have a real-world impact.

Printing: How to Make an Eco-Friendly Impression

One simple way to reduce the amount of paper in an office is to reduce the number of devices that generate it. (Insert "duh" here.) Printers, copiers and faxes dot the modern business landscape like clover, yet many are redundant or idle for long periods of times. Our experience with document-driven processes has revealed that companies have an average of one printer for every two computer users. What's more, those printers remain inactive 98 to 99 percent of the time.

By reducing your company's employee-to-device ratio, you can significantly drive down energy costs. One way to do this is to replace single-function devices, such as printers, with shared multifunction devices that print, scan, copy and fax. This can cut energy consumption by 20 to 30 percent, while cutting down on ink cartridges and toner. In addition, if you replace older equipment with ENERGY STAR devices, you can decrease power consumption by approximately 70 percent. So both the environment and the enterprise realize savings.

One leading aerospace and defense firm that implemented multifunction devices was able to streamline its employee-to-device ratio from 2:1 to 8:1. Prior to the change, a Lean Six Sigma analysis of the company's document production revealed considerable redundancies. The client used the Xerox Sustainability Calculator to quantify the impact of potential improvements. Today, they are operating with 60 percent fewer document devices, enjoying 35 to 50 percent savings while using 27 percent less energy and generating 33 percent less waste.

Los Angeles Trade-Technical College (LATTC), one of the oldest community colleges in the country, addressed similar inefficiencies. A proliferation of independent desktop printers had resulted in a device-to-user ratio of 3:1. There were so many devices that the IT staff spent about half its time servicing them.

The printers were replaced with networked multifunction units, including some with vending stations. Innovative ColorQube® printers with solid ink technology were implemented in departments that produced full-color documents. (Solid ink is a crayon-like block of ink that melts during the printing process. It has no cartridge and uses single-pass image transfer, so it produces up to 90 percent less waste and consumes 30 percent less energy than comparable laser printing.)

Today, there are eight LATTC users for every multifunction device. Paper and consumable consumption are both down; two-sided printing is up. The savings in printer cartridges alone equals $250,000 a year, with $1.5 million in total savings expected within the first five years.

Greener printing is also paying off for Milwaukee Area Technical College (MATC). By replacing about 75 percent of its older stand-alone printers with multifunction devices, MATC cut the cost of consumables by a quarter of a million dollars. The college also installed a Streem Fax Server to convert incoming faxes to e-mail, plus Pharos Systems swipe-card software to manage payments for student printing. On top of that, Xerox Device Manager software monitors consumables usage and proactively identifies device issues. The college's anticipated five-year savings? $3.5 million.

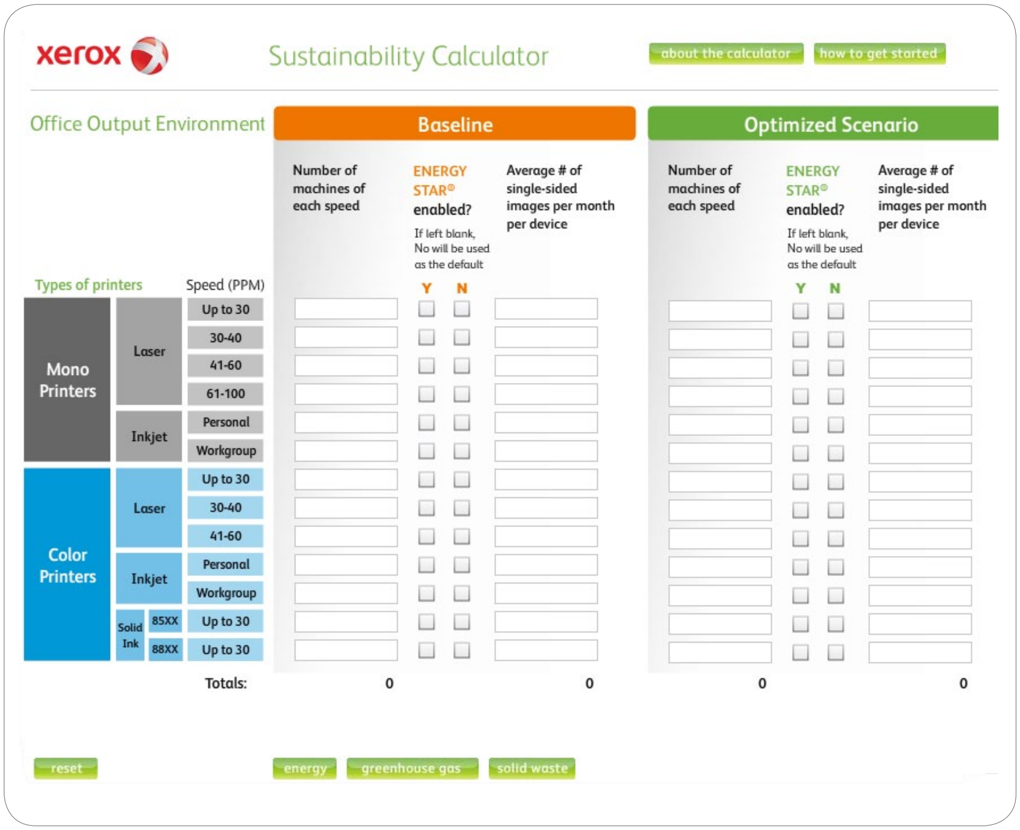
More Steps for Your Carbon Footprint

In addition to streamlined printing services, there are a number of other strategies that can help make your company's document production environmentally friendly:

- Seek out eco-efficient inks and toners, such as EA Toner, which uses less toner mass and lower fusing temperatures, resulting in about 20 percent less energy consumption than conventional dry ink toners.
- Recycle empty ink and toner cartridges or return them to the manufacturer for reuse.
- Select office equipment that is designed with recycling or reuse in mind, such as devices with remanufactured parts.
- Look for vendors whose manufacturing processes reflect environmental responsibility. For example, at Xerox, we ship the waste and wastewater from our toner manufacturing operations to energy plants for reuse.
- Explore the use of digital production technologies, such as print on demand, which reduce wasted paper and energy by producing documents only when needed.

Aristotle said that nature does nothing uselessly. You can mirror nature's approach by implementing any one of the measures above. No matter which direction you take, it's destined to lead toward a better tomorrow.

The Xerox Sustainability Calculator



What You Subtract Adds Up

Xerox has been a major pioneer in sustainability since 1969. We introduced the industry's first two-sided printers and the first printers that power down. We also played a key role in establishing the U.S. ENERGY STAR program. Today, our environmental commitment remains strong, evident in our focus on remanufactured parts, recycled papers, internal recycling/reuse procedures and tools like our Sustainability Calculator.

The Sustainability Calculator is a "green audit" tool that helps businesses assess and lessen the financial and environmental impact of their print infrastructures. The calculator compares a company's current, baseline scenario with an optimal print environment, providing side-by-side reviews of energy consumption, greenhouse gas emissions and solid waste creation. For a big-picture view of how your output environment might benefit from a greener approach, visit www.xerox.com/sustainabilitycalculator.

Process: Purifying the Workstream

Throughout this book, I have presented a variety of business situations where a key function, such as accounts payable or regulatory compliance, has been significantly improved through better document management.

In all of these examples, the use of paper—and its corresponding energy demands and costs—decreased dramatically. Marriott's financial workflow. Trident Group's mortgage processing. Procter & Gamble's print production. Each represents a smarter process that contributes to a cleaner world.

Think of it this way: inefficient processes yield excess paperwork, which means wasted energy (both personal and electronic). Drive out your inefficiencies and you reduce your environmental footprint. You also gain a more secure foothold on your bottom line.

Digital document services like imaging and Web-based collaboration can help, streamlining processes while minimizing the need for hard-copy materials. Digital mailrooms can, too, employing a variety of scanning technologies to read, categorize and forward documents in electronic form.

Additionally, electronic data management products such as DocuShare® SMARTsend® and FreeFlow® Digital Workflow Collection can substantially reduce paper consumption, turning the print-then-distribute model into one of distribute-then-print.

Advancements like these also contribute to the environment in indirect ways. For example, they can eliminate the need to ship documents via ground or air, reducing emissions and fuel consumption. Or enable global collaboration without global travel. Or facilitate the expansion of a remote workforce, reducing the number of commuter vehicles on the road.

For instance, one state government's move toward Web and phone-based service for welfare applicants is not only decreasing paperwork, but is expected to mitigate 2 million vehicle trips to state offices each year. And our ACS PrePass® solution, which automates the forms and procedures for weighing and inspecting highway trucks, has helped eliminate approximately 4.3 million hours of roadside idling time in 2010 alone—conserving over 20 million gallons of fuel and saving more than $446 million.

Process improvements like these can help your organization move toward greater sustainability. While you may initially view sustainability as unaffordable, the dollars lost due to inefficient, non-green processes could be costing you more. Not to mention the cost of lost business due to factors like a lack of environmental compliance, an inability to compete in RFPs with sustainability mandates or the cold shoulder of consumers with an ecomind-set.

No longer the exclusive purview of utilities and government organizations, sustainability involves us all. It has evolved from a compliance issue to a commercial—and social—necessity. Within the next five years, sustainability is expected to emerge as a mainstream force that will drive innovation, growth and profit.[16] Which means it is destined to shape your business.

We do not inherit the earth from our ancestors, we borrow it from our children.
Native American proverb

Changing the Climate in Three Different Fields

$7 Million in Savings for an Information Storage Leader

Using many of the tools mentioned here, including smarter print management and multifunction devices, a $14.9 billion information technology leader was able to save over $7 million a year and keep more than 20 tons of waste out of landfills. The company reduced its cost per page by 55 percent while increasing its employee-to-device ratio by 35 percent.

85 Percent Cost Cut for One of America's Greenest Cities

The first U.S. city to earn ISO 14001 certification for its Environmental Management System is saving money and the environment due to 500 energy-efficient multifunction devices plus streamlined document workflows. Due the multifunction switch, employee productivity and device use are high while costs per page are low—in one case 85 percent lower than before.

43 Percent Less Energy for a Worldwide Chemical Company

A leading chemical company is reaping the financial and ecological benefits of globally managed print services that span 49 countries. The company also digitized over 5 million documents, dramatically minimizing hard copy duplication. As a result, the enterprise realized energy savings of 43 percent on office printing, avoided 133 tons of landfill and reduced CO_2 emissions by 1.4 million pounds a year.

Turning Over a New Leaf

Documents and their processes are only one component of an enterprise's green initiative. They should fit within a larger strategy that marries sustainability development to overall business development. Here are five ways you can begin to strengthen the bond.

Look up and down your value chain

You're not alone in the development and delivery of your products and services. The same holds true for your green initiatives. Look beyond individual internal functions for areas of improvement throughout your value chain. Are your source materials earthfriendly? Is your product packaging eco-efficient? Can your shipping processes be streamlined?

Leverage your partnerships and work with environmentally responsible suppliers and outsourcing providers. For example, Xerox has recycling/remanufacturing programs that have diverted more than 2 billion pounds of waste from landfills since 2001. When you consider all the links in your value chain, you can dramatically expand the reach of your environmental influence.

Identify short- and long-term opportunities

Use quantitative analysis tools and methodologies, such as Lean Six Sigma, to pinpoint problems and identify opportunities that will produce the greatest environmental benefit in the shortest time frame. Start with some of the easy wins mentioned earlier, such as two-sided printing, then work toward larger-scale endeavors. Run pilot programs to work out bugs. When a program begins, promote it. And don't be shy about touting your successes—they help create enthusiasm and engagement.

Establish environmental and economic metrics

Make sure your conservation proposals offer quantifiable economic and environmental benefits. Put metrics in place to measure the financial and ecological impact of any potential changes. As Xerox Vice President for Environment, Health and Safety, Patty Calkins often says, echoing Peter Drucker, "what gets measured gets managed."

This might mean evaluating things like cost in a slightly different way. For example, when Xerox implemented its remanufacturing strategy in the 1990s, we needed to design more cost into our parts to make them reusable. However, when you consider the extended life cycle of each part, money is saved over the long run. Had we limited ourselves to a lowest-cost-provider strategy, we would never have succeeded.

Make the sky the limit

If ever there was an opportunity for "blue sky" thinking, this is it. Literally and figuratively. Remove your limits and take a fresh look at your organization. Make "innovate" your mantra. Sustainability isn't just a means of enhancing what you're already doing. It's a way to achieve breakthrough results, including the introduction of revolutionary products and services.

ZipCar's hourly car rentals offer a great case in point. By digitizing paper processes and leveraging new technology, ZipCar is helping the environment while promoting a completely new business model—one that couldn't have existed 15 years ago.

Make a commitment

Sustainable development requires a long-term commitment. It demands buy-in at all levels, starting with your leadership team. Develop a sound strategy that reflects your environmental priorities, then stick with it. Win over employees with passion. Show them that their efforts are paying off—and recognize that what they're doing matters, not only to the business, but to the planet.

Balancing Ecology and Economy

Kermit the Frog was on to something when he sang, "It's not easy being green."

According to the previously mentioned U.N. Accenture study, the biggest challenge CEOs are facing in their move toward sustainability is execution. Yet execution obstacles must be addressed in order to leverage opportunities. Human nature and Mother Nature have no choice but to become allies. As Gartner, Inc. warns:

> In future histories, failing to embrace and exploit the opportunities of the sustainable transformation will look as irrational as resisting the emergence of steam or the internal combustion engine at earlier stages in the industrial revolution.[17]

The ecological revolution has begun and it's here to stay. As businesses work to integrate the movement's social, economic and environmental dimensions, it is important to remember that sustainability is not a means to an end. It is a way of doing business that requires continual effort and change. As Xerox CEO Ursula Burns has said, "Sustainable development is a race with no finish line. It requires leadership that sets high expectations and clear direction, partnerships that inspire collaboration and adaptation of sustainable business practices and innovation that constantly pushes the frontier of what is possible."

With each future success, sustainability will become a more powerful engine of growth, benefiting both the business world and the world at large. As that happens, more enterprises will view sustainability as something they seek rather than something they suffer.

But profits and growth capture only a portion of sustainability's real impact. Ask yourself this: How often in business are you presented with a chance to do something for your children? How often can your enterprise have a measurable effect on future generations through the actions it takes today?

When all is said and done, the true value of sustainability lies in its dual promise of prosperity and posterity. If we take even the smallest steps toward realizing that promise, we can make an enormous difference in the lives that follow ours.

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“It’s kind of fun
to do the impossible.”

Walt Disney

13

The Future of Documents and How to Leverage It

As recently as the 1980s, paychecks arrived in envelopes, document technology meant electric typewriters, interoffice mail was pervasive enough to require a staff and sales presentations sprang from mylar sheets on overhead projectors. The impact of digitized documents was just a dream, barely hinted at by the arrival of Wang word processors, IBM PCs and the Commodore 64.

Since those “early” days, documents have changed so dramatically and so intrinsically that it’s hard not to look forward to what lies ahead. The document advancements of the last few decades occurred while the digital revolution was in its infancy. Now that document technology has reached young adulthood, the potential for innovation is even greater.

As new technologies surface, documents are destined to become more dynamic and malleable, their content liberated to the point of virtual self-government. Countless emerging technologies—e-paper, cloud computing, and many others—are already proving the case. But what we are seeing today is merely a glimpse of what we are likely to experience tomorrow.

Form Follows Function … or Not

The physical form of documents will continue to change at a rate Morpheus would envy. Anyone who has read the latest John Grisham thriller on an Amazon Kindle® or used their Apple iPhone® as a Starbucks debit card is experiencing the shift firsthand. If, as mentioned earlier, documents are information “containers,” then tomorrow’s containers will appear in an astounding variety of shapes and sizes—some changing right before our eyes.

Take for example, erasable paper. Developed at the Xerox Research Center in Canada, erasable paper uses compounds that change color when exposed to light. The light forces the paper’s content to disappear within 24 hours, enabling newly blank pages to be returned to the input tray. Documents like emails, memos and meeting notices are available while needed, then vanish. When you consider the security and sustainability advantages of erasable paper, it’s easy to see why we consider it remarkable—in all senses of the word.

Another promising advancement is flexible OLED “paper” from companies like Sony® and Samsung®. At first glance, an OLED (Organic Light-Emitting Diode) sheet appears to be a photo print—a thin, full-color image. But when the image begins to move, you realize you're watching a video display. One that curls and bends like a piece of paper.

If OLED displays grow in size and incorporate wireless connectivity, there's no limit to their business possibilities: Sales sheets with built-in product demos. Live handouts at business conferences. Marketing materials that literally speak to each customer. These pioneering applications might seem to be decades away, but consider this—only a few years ago, "computer phones" appeared to be equally distant.

It's a testament to the speed of technological change that the inclusion of e-books in this discussion feels almost quaint. Available to the general public since the 1990s, e-books have swiftly evolved from presenting Dickens novels in black and white e-ink to offering full-color, graphic-filled best-sellers with animated page turns. In fact, during the second quarter of 2010, for the first time ever, Kindle e-book sales outnumbered Amazon's hardcover purchases—140 e-books for every 100 hardcovers.[1]

That same year, schools in Virginia and California rolled out pilot programs that replaced textbooks with iPads. According to a Virginia elementary-school teacher whose iPad-based social studies curriculum is now exclusively digital, "It was fun watching the kids jump right in. They're so used to technology, they took to them right away."[2]

More recently, technologies like the Vook have begun reshaping e-publishing, blending the book format with high-quality video and Internet connectivity. The reading list includes everything from business advice to children's books to golf tips. Let's say you're a golfer who needs help driving the ball longer. You download a golf Vook, read the chapter on golf-swing mechanics, watch a demo about long drives, view a follow-up clip of golf teacher Jim McLean, and then gloat about your newfound knowledge on Twitter—all within one document, without switching platforms.

We can also expect more expansive use of document technologies like embedded Radio Frequency Identification (RFID) tags, which facilitate document tracking and can trigger alarms at building entrances and exits. Plus documents that house their own microbatteries, circuits and antennas—PCs where the P means "paper." Of course, there's also the continuing evolution of e-paper itself.

Today, e-paper is primarily a passive medium: Experts provide content; everyone else accesses it. But how long will it be before e-paper escapes the book world and becomes as common as paper-paper? How will enterprises change when anyone can create portable e-pages? What marvels will spring to life when preschoolers start using e-paper like a disposable Ohio Art Etch-A-Sketch®?

These breakthroughs—and countless others—will deliver new forms of incredibly rich content in extraordinary new ways. We rightly applaud our present-day ability to read the *New York Times* on a Nook or to enlarge a touch-screen page with a sliding finger. But when it comes to e-documents, we are only beginning to scratch the surface.

A New Dynamic, Inside and Out

The changes affecting the document form factor will be matched, or possibly exceeded, by those influencing document content.

Mobile and cloud-based technologies in all forms—Software as a Service (SaaS), Infrastructure as a Service (IaaS) and Platform as a Service (PaaS)—will make documents more accessible than ever. At the same time, standards like XML will simplify content exchange. Information will be simultaneously more open (the cloud) and more structured (standards). As a consequence, content will move readily from one place to another, with or without the wrapping of its original document, morphing as needed along the way.

One quick aside—if you find the industry buzz around the “cloud” a bit vague, here’s a crisp definition from Wikipedia, “Cloud computing is Internet-based computing, whereby shared resources, software and information are provided to computers and other devices on demand, like the electricity grid.”

What does the cloud have to do with documents? Plenty. With cloud computing and dynamic content, individuals around the globe will be able to create documents, make changes, reconfigure content chunks, repurpose content, embed new content forms, aggregate real-time information, develop mosaic documents from multiple sources and so on—without worrying about having the “right” operating system or application. In short, users will be able to easily access, manipulate and share documents and content from any computing platform that has a Web browser.

Tools like Basecamp® and DocuShare® have already set this trend in motion, but the open cloud platform will shatter its limits. Learning curves will be minimized. Documents will become easier to create and more intuitive. Collaboration will be simplified.

Documents will evolve from static frameworks housing self-contained pieces of information toward aggregates of flexible content drawn from diverse sources. NewsCorp’s iPad newspaper, which pulls stories from multiple news feeds based on reader preferences is one small embodiment of the concept. Technology is rapidly advancing to a point where multi-author mashups may soon be common and tools like Box.net will enable global workflows over mobile devices.

Content will also become more dynamic in and of itself, as touch-screen manipulation blurs the line between user and document. In the past, interfaces displayed the document; today, they sometimes are the document. This shift requires a new way of thinking about document design. An article on crowdsourcing.org explains it this way:

> Where professionals once wrote memos to be read, 2011 begins an era in which documents are written with touch both in mind and on fingertips. Designing documents to be a sensual physical experience and not just a visually cognitive one demands different aesthetics and sensibilities. This nascent transition will be as profoundly important for future interpersonal communications—and branding—as the transition from radio to television. Having the right touch to get the right touch will become a desirable communications competence.[3]

Equally pivotal, social networking tools like Facebook and Twitter will broaden their business role as the distinction between "personal" and "professional" fades. Social content such as Yelp preferences and Foursquare badges may serve as the foundation for highly customized, one-to-one marketing campaigns. Business-centric social applications like salesforce.com's Chatter might offer enterprises their own private social network. And user-generated bits and pieces may come together to serve enterprises in ways that are impossible to predict.

Documents with a Mind of Their Own

As a complement to their increasingly kinetic nature, documents are becoming smarter, moving from passive to proactive in beguiling new ways. Tools like semantic software are creating an intrinsic awareness around document content and purpose, resulting in a sort of document cognizance. This is already evident in documents that route themselves to recipients and in applications like Meshin™, which employs semantics to comprehend and sort Outlook content.

Another visionary example lies in the digital mailrooms being implemented by leading-edge companies. When a letter arrives at these state-of-the-art facilities, smart document technologies read and analyze the content. Decisions are automatically made about content, recipients and document type. Is the letter handwritten or printed? Paragraph form or order form? All without human intervention.

As a next step, tools such as OCR software and linguistic engines identify words, names, dates and other information to establish links within the document and beyond. So, for instance, a smart document might search for the word "cancel" in conjunction with other keywords, or for the word "expiration" accompanied by a specific date. Additionally, intelligent redaction software might be used to delete sensitive data before the letter is systematically categorized and sent on its way.

No longer confined to electronic communication, smart document technologies are increasingly being applied to hard copy materials. Consequently, they are bringing greater intelligence—and, in a sense, self-awareness—to all manner of documents.

These innovations not only aid productivity and decision-making, but also significantly alter the way we retrieve and mine content. IDC estimates that more than 2,600 exabytes of information will be added to the cloud by the year 2012.[4] The smarter our document processes become, the easier it will be to pierce the growing density of information and leverage content that is meaningfully organized.

It is not far-fetched to envision a day when intelligent, proactive documents process information to make recommendations or reach conclusions. For example, a smart document might analyze the historic data related to a specific type of lawsuit, then suggest a legal argument based on the successful strategies of the past. Or documents may:

- Automatically search for new information to keep content current and relevant
- Create original documents out of what they've "learned"
- Pull information from social sites to create customized, one-to-one communication materials for customers
- Automate time-consuming steps in business processes
- Maintain audit trails to track their own use and evolution
- Learn user viewing preferences to present information in a predetermined way (regardless of device)
- Retire themselves to an archive when they're no longer needed.

As smart as these documents may appear to be, they are ultimately just a reflection of the user's mind-set. Like avatars in the digital document world, they focus on providing user-valued information while brushing aside everything else.

Documentality: Thinking About Documents in a New Way

So how do you leverage the continually changing nature of documents? How do you ensure that your current and future documents—in all forms—drive your enterprise, rather than drag it down? You begin with a shift in your thinking. A new documentality, if you will.

It's a foundational mind-set that has three dimensions. The first involves a backwards glance at the documents of your past. By scanning and digitizing older documents, you can extract knowledge and meaning from their content, making valuable information readily accessible to more employees. Imagine a scientist in the middle of the rain forest accessing a research library via a tablet computer, and you get one tiny piece of the picture.

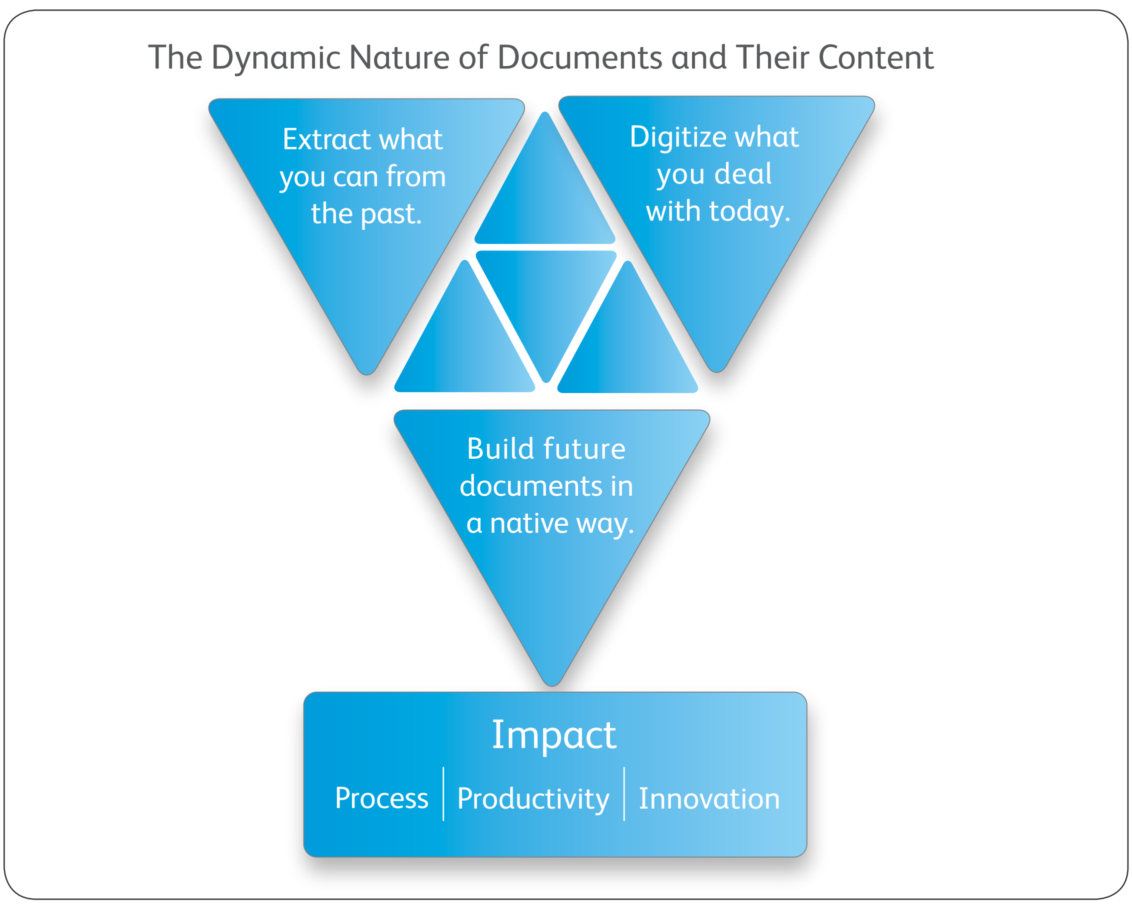
The second dimension is the present. You need to look for ways to enhance the here and now, digitizing today's documents and their processes. Mailrooms. Financial workflows. Customer correspondence. The state-of-the-art technologies mentioned earlier, such as OCR and linguistic software, are among the many advancements that can place new document efficiencies within your reach.

Finally, it is important to start building for the future in a native way. From the moment you consider creating documents and/or content, you should do so with a view toward making them dynamic and inherently smart.

No mistake about it—there's a lot of hard work required to bring these dimensions to life. You have to use technology creatively. You need to intersect existing processes with newly built capabilities. You may have to change long-standing behaviors or organizational infrastructure. And your knowledge of emerging document technologies has to advance past cursory.

But the payoff is worth the pain. You'll deliver legitimate value for your enterprise, impacting processes, knowledge-worker productivity and even your ability to innovate.

The New Documentality



The Process Impact

The first major payoff of a new document mind-set is process impact. Quantum leaps in document form, content creation and cloud compatibility will make it easy to use documents and content more effectively, contributing to the efficiency of countless processes.

Employees will exchange documents and incorporate information from virtually any source, without reformatting. Tools like audit trails will track document development and usage. And new technologies will bring structure to the world of unstructured data, making even more information readily accessible and usable.

These advancements will undoubtedly change the way we work—not only with documents, but also with each other. Simply stated, when you transform the document, you transfigure the document process. Better processes yield better decisions; better decisions drive better results. Add cloud computing to the mix, and companies of all sizes will be able to recast their document workflows and reenergize their business.

- Processes that require sorting through mountains of documents, such as drug development, litigation-related discovery and engineering research will benefit from greater focus and control, leading to increased productivity and more informed decision making.
- Document processes that involve step-by-step approvals, like mortgages, will be reengineered to provide internal and external reviewers with simultaneous access, reducing cycle times and increasing customer satisfaction.
- Back-office processes like accounts payable will be enhanced with digital forms and automated workflows, improving turnaround times and overall cash management.
- And any document-related process will be able to benefit from shorter time frames and better control, as documents are automatically read, categorized and distributed—all with fewer errors.

These advantages are already evident in many of the Xerox case studies presented earlier: The Trident Group's mortgage processing. Ducati's user manual production. Target's direct-mail processes. Northwest Airlines' online self-service. Each workflow became simpler and faster because of powerful document technologies. We can only wonder what will happen as those technologies grow even smarter and more dynamic.

Every document-driven industry stands ready to benefit. Picture this health-care scenario: A physician's smartphone rings at 2 a.m. The patient on the other end is experiencing dizziness. The physician accesses the patient's records via the phone to help determine what's wrong. If necessary, the doctor e-faxes a summary of the patient's records to the nearest ER or forwards a prescription to the patient's pharmacy. Diagnosis and treatment improve because the right information is right at hand.

Or imagine a diabetes patient wearing an insulin pump that automatically documents his physical activity and insulin use. The pump wirelessly sends the patient's electronic journal to a server on the Internet for review by a caregiver. Sound like fantasy? In actuality, each of these "what if's" is a "what is"—new technology that is real and ready to break out.

The Productivity Impact of Dynamic Document Access

The preceding processes all point toward greater productivity. But when these processes are tied to emerging mobile technologies, as in the previous health-care examples, knowledge workers can become productive in ways never before seen. Consequently, the impact of mobile innovations cannot be overstated.

In a brief period of time, the number of mobile workers in the U.S. has grown to 100.3 million, about 72 percent of whom are mobile knowledge workers.[5] Because of this trend, mobile devices are quickly evolving into multi-function business tools. In a recent InfoTrends study, mobile knowledge workers reported reading 59 percent of their documents on screen.[6] Equally noteworthy, 72 percent of the respondents had the ability to collaborate, update and amend documents remotely.[7]

With another 22 million American workers expected to go mobile by 2014, it is clear that we are on the cusp of a major shift. InfoTrends captures the point succinctly:

> Mobile knowledge workers are arguably the fastest-growing segment of today's office workforce. InfoTrends anticipates significant changes in how and where mobile knowledge workers create, access, collaborate, print, and perform many information-based business processes.[8]

One such process is evident in Xerox's new mobile print technology, which enables smart phones to locate and access printers anywhere in an enterprise. For illustration purposes, let's observe a Cleveland employee visiting her company's Taiwan office:

The employee taps the Xerox Mobile Print app on her smartphone, looks at a Taiwan floor plan dotted with printer sites, selects one and emails her document to the device. She also punches in a security code. The code is reentered at the device for verification purposes. The printing begins.

While presently available for intra-company use, this mobile print application has implications that transcend company walls. With the integration of cloud printing and GPS technologies, our Cleveland friend will be able to find a printer inside or outside the enterprise, based on her location. So if she is traveling down La Cienega Boulevard, she can instantly send her document to the nearest El Segundo Staples, Kinkos or Office Depot.

Mobile financial transactions are also on the rise. While we have already seen the emergence of mobile banking, more recent advancements include credit-card readers designed for smartphones and mobile payment systems that use Near-Field Communication to access credit-card, gift-card and bank funds over iPhones. With approximately 1.2 billion people already carrying handsets capable of rich, mobile commerce,[9] wallets and purses may soon house nothing more than a driver's license.

The combination of mobile applications and cloud computing will be unstoppable. According to IDC, the projected annual growth rate for cloud services from 2009 to 2014 is expected to be 27.4 percent—more than five times the rate of traditional IT offerings.[10] As the cloud spreads, organizations of all sizes will be able to leverage complex, document-driven workflows, streamlining their business processes by scanning documents to the cloud for processing, reworking and storing. As Joe Tucci, CEO of EMC Corp, described it, "We're now going through what I believe is pretty much going to be the biggest wave in the history of information technology."[11]

The Third Impact: Documents as Innovation Catapults

Tomorrow's document advancements will certainly help enterprises enrich what they are already doing. But their real allure lies in enabling enterprises to do what they've never done before. In short, technology innovation begets business innovation. And the need for business innovation is pressing.

Today's global playing field is packed with teams who have never been more eager to win. In his 2011 State of the Union address, President Obama linked U.S. innovation to job development, economic growth and global competitiveness, and urged Americans to "think bigger" and seize "our generation's Sputnik moment." When *Ad Age* and Forrester Research asked 20 top marketers to name their priorities, "developing a culture that fosters and supports marketing innovation" landed in the top three.[12]

More than simply an internal rallying cry, innovation has become a differentiator, inside and outside the office. Customers seek it from their vendors. Vendors seek it from their suppliers and partners. In a recent HFS Research report on Business Processing Outsourcing (BPO), 94 percent of the respondents stated that their company's executive leadership views innovation as "a critical or quite important component of their BPO strategy … becoming the major differentiator in provider selection."[13]

In leveraging new technologies to lighten your document burden, you can enhance your position as an innovative company. Your focus can move from document management to business management, with a renewed emphasis on your core market offering. Conversely, you may find that the changing nature of documents leads you toward a completely new business model—one with even greater promise.

Take as an example Groupon, which provides daily localized coupons to online subscribers. Groupon's discounts don't become real until a critical mass is attained—i.e., a prespecified number of users must commit to the Groupon offer. Once the tipping point is reached, the deal is on.

There's nothing new about Groupon's document type—it's a coupon. And there's nothing particularly unique about its website. But the fact that Groupon uses real-time data to determine whether it has a "product" is groundbreaking. As is the fact that sponsors don't commit to a discount until the economies of scale are in their favor. It's a business model that couldn't have existed 10 years ago.

ZipCar represents similar ingenuity. Users reserve a car from a PC or mobile phone, locate the car's local parking space, unlock the car with a Zipcard and head off with their hourly rental—without filling out hard-copy applications or approaching a service counter. It's another business model that couldn't exist without digital documents … much like NetFlix, Zillow, eBay and countless other companies on a list that grows longer every minute.

But innovation doesn't have to manifest itself as a game-changer. Truly visionary organizations look to innovate everywhere, even in the most mundane areas. Take for instance, sports teams that allow their schedules to be integrated with their fans' Outlook calendars. It's a simple, original idea that strengthens customer loyalty in a way many costlier programs don't. Or imagine a sports stadium tracking real-time concession sales so that it can offer a 20 percent discount on slow-moving items during the seventh-inning stretch. Will these ideas change the industry? Hardly. Will they change the cash register receipts? Hopefully.

Beyond specific products and services, business structures themselves are likely to assume a more innovative profile. With greater access and fewer limits, small companies may begin operating like big ones, offering products that are created and sold through a continuously evolving supply chain that forms on demand from a global pool. Large companies may consist of a small central team, complemented by a virtual workforce of independent contractors and temporary employees around the world.

Dispersed, distributed workflows could become commonplace. Companies might assemble and disassemble virtual teams as needed, redefining "departments" completely (goodbye, silos). Or knowledge workers might move freely from one company to the next, working remotely for one enterprise before assuming an on-site position at another. The technology makes these structures and workflows possible. The question is: How do we make them practical?

Rapid Change? Not So Fast.

Unfortunately, the path toward the utopian document future is not without its obstacles. And they're substantial. Leading the list are security and privacy. The doorway to cloud computing needs quite a few more locks and burglar alarms before many enterprises will enter. And the "access anywhere" platform of mobile devices needs a little less "access" before businesses will confidently agree to "anywhere." There are also concerns about control. As businesses venture farther from their core infrastructure, they must be able to extend their reach without losing their grip. Control and continuity outside of the enterprise walls—including the firewalls—must be ensured. The reliability of the cloud also needs to be a given. Anyone who's ever shouted "You're breaking up" into a cell phone knows how tenuous today's networks can be. Tomorrow's networks can't repeat the sins of the past.

The growth of user-generated material raises an additional set of control anxieties. If user content is pushed and pulled by an enterprise, it must be tightly managed and undeniably secure. But how? Are new infrastructures required to address the situation?

And what about compatibility and longevity? Will all of your documents move smoothly to the mobile world? Will content remain accessible and readable as future technologies change? How will you access your files if your data provider goes out of business? These are major questions, and companies are already scrambling to find—or build—solutions.

Beyond the technological complexities lies a minefield of business issues, such as measuring the ROI of social media and finding the right pricing structure for pay-as-you-go services. There are also human issues, such as employee acceptance of new workflows and technology clashes between generations. Not to mention legal issues. If personal and professional lines grow blurrier, how do you define "your" documents? Who "owns" the tweets and blogs?

Of course, breakthrough technologies always tend to raise questions and fears. They wouldn't be considered disruptive if they didn't. But history has shown that when the benefits of a new technology are powerful and desirable, the opportunities somehow manage to trump the obstacles.

The Next Chapter

The transformation of documents over the last 30 years has been astonishing. What was once considered a digital revolution is now the status quo, providing a tremendous platform for further innovation.

In the coming years, documents will continue to evolve, abandoning their traditional role as fixed containers of static information. A greater number of documents—perhaps all—will be dynamic, with liberated content that can be quickly accessed, analyzed and merged with other documents. A new breed of intelligent documents will act on our behalf, simplifying the search for information and streamlining time-consuming tasks. In addition, the distinction between a document and its technology will be increasingly difficult to discern, giving new meaning to Marshall McLuhan's claim that the medium is the message.

These changes will enable a "document" to be as large as a library or as small as a cluster of spreadsheet cells, with a shelf life ranging from a few seconds to a digital lifetime. Content may be limited to words or may overflow with moving images, real-time text and personalized audio. And "paper" may become nothing more than a portable, ever-changing display.

One thing that won't change, however, is the significant role that documents will play in our business lives. Whether conventional or revolutionary, documents are essential to progress. They sell products and services. Provide strategy and direction. Empower workflows. Record transactions. Generate revenue. Establish and enhance customer loyalty. Drive innovation. And impact virtually every aspect of enterprise success.

Documents are no less important in our personal lives. From the moment we are born until the day we depart, they define us. Birth certificates announce our arrival; death certificates tell the world our days have ended. Every meaningful occasion in between is marked by birthday cards, diplomas, photos, Facebook status updates, earnings statements, business licenses, mortgage approvals, tweets, passports and other evidence of our existence.

As we head toward the future, documents won't stop doing what they have always done. They will just do it more quickly, more intelligently and in remarkable new ways. No matter what tomorrow's documents may hold, each will continue to deliver on the promise of the man who first made document distribution possible:

"Like a new star it shall scatter the darkness of ignorance," predicted Johannes Gutenberg, "and cause a light heretofore unknown to shine among men."

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About *Between The Lines*

Documents are an integral part of the modern business world, yet their strategic potential remains underutilized or ignored. In *Between the Lines*, John Kelly offers an in-depth look at the critical role this unheralded resource is playing in visionary enterprises worldwide. Whether digital or hardcopy, documents are kick-starting productivity, generating revenue and influencing virtually every other C-level business issue. With "How tos," tips and success stories that include Target, Marriott, Ducati and other leaders, *Between the Lines* makes the compelling argument that one of the most overlooked business tools of the 21st century is also one of its most important.

"John Kelly lends a bright new twist to the age old concept of a document. An easy and important read—not only for those in the document industry—but for companies that struggle with how accelerating consumer technologies will merge with traditional business processes. Straight forward and substantive advice to improve productivity and help the environment."

Craig Le Clair, VP and Principal Analyst, Forrester Research, Inc.