Examining the Cost and Value of Documents

Dramatic changes in the ways that organizations define and use documents today have given rise to tremendous opportunities—as well as significant risks. The same documents that can have a negative impact on costs can have a positive effect on helping achieve an organization's goals. To ensure that documents are used to their best advantage, it is important to have a clear understanding of the kinds of costs they can incur, as well as a sense of the ways in which they can create value. It may not be possible to determine precisely the value of a document in the same way that one can identify the specific costs associated with it, but recognizing that cost and value coexist is vital to managing documents effectively.

Why cost and value matter more than ever

Predictions of a paperless workplace were widespread as recently as ten years ago, when new technologies were radically transforming the ways in which people communicated and connected with each other. In the wake of developments from e-mail to electronic data storage, who could blame anyone for expecting the piles and piles of paper in organizations to eventually go away—along with the high costs associated with printing, sharing and storing them? Reality, however, has proven far different. Networked access to the Internet and all the information available there has led to more printing, not less, and e-mail appears to have caused a large increase, rather than a decrease, in paper consumption.* Documents have become a kind of currency for today's far-from-paperless workplace, and the organization that hopes to realize the most value from them must build those hopes on a sound document strategy. Such a strategy starts by identifying some of the key sources of document cost and value.

Examining the cost of documents

Determining how much it costs to produce, share and store documents today is a more complex undertaking than ever before. Now that documents exist in two forms,

paper and electronic, to examine the costs associated with them requires taking this duality into account.

The cost of producing documents

Printing and related activities constitute a major source of costs in document creation, and one that has the potential to increase even further as printing volumes rise. As document expert Nick Shuttleworth has pointed out, as more information becomes available electronically, the amount that gets printed is also likely to increase.** The costs associated with printing fall into two major categories.

- Equipment, or costs related to printers and other devices that are used to produce documents, including hardware and software, consumables (such as paper and toner) and maintenance and support. One way to keep these costs from spiraling out of control is to develop a clear, comprehensive strategy for document output. An output strategy looks at how printers and related devices are acquired, maintained and managed, with the goal of getting the most performance possible from them at the lowest possible cost.

- Productivity, or costs related to how efficiently (or inefficiently) people perform the processes associated with producing documents. For example, are people who spend more than half of their time printing documents located near the printer? Are people who only need to print a few pages every couple of days in the same queue as people who need to print documents in the hundreds of pages? These are the kinds of questions that a sound document strategy takes into account.

The cost of sharing documents

Documents represent a key way to communicate within organizations. The costs of sharing documents range from those associated with printing and copying documents (whether physically or electronically) to those related to keeping the information in them secure even as it's being shared.

- Processes, or the costs of the physical activities related to sharing documents. Assessing these costs requires taking into account how many documents are involved and the extent to which they are shared. According to Gartner, for example, "The typical job is five pages in the original set, of which 7.5 copies are made."[†] In another report, Gartner points out that "The average document is copied, either physically or electronically, nine to 11 times at a cost of about $18."[††] In addition, there are costs such as those associated with using documents from legacy applications in new contexts. If a legacy document that was originally produced on a particular printer is later produced on another one, for example, the pagination may change in the process, and there will be costs associated with ensuring consistency in that event.

- Security, or the costs of keeping sensitive information from getting into the wrong hands. This is a particular challenge today when many traditionally paper-based documents, from purchase orders to patient information forms, also exist as electronic documents, exposing them to the additional risk of cyber security breaches. Securing information while maintaining its accessibility to authorized users may require investing in both technology, such as print-related security software, and user training and awareness. This is a relatively small price to pay compared to the nearly incalculable cost of goodwill lost or liability incurred by inadvertently compromising private information.

The cost of storing documents

The cost of storing physical documents is not inconsiderable, especially for paper-driven organizations such as public institutions or heavily regulated businesses. One of the major factors in this is the sheer space required to keep physical documents in storage. Another is the human-resource costs associated with document storage. These factors play roles throughout the storage process, from filing to retrieval of documents.

- Filing, or the cost to store documents physically. Gartner contends that "documents cost about $20 to file,"[††] a significant amount especially when combined with the cost to produce and copy that document (see previous sections of this paper). One way to reduce the cost is to store documents electronically instead, which reduces

the amount of space required for filing. However, this is not a panacea. It's important to take into account issues such as the amount of data that will result from electronic storage and the load that may place on the network infrastructure. It may be useful to establish a set of criteria (see chart below) for whether a document should exist in paper or electronic form.

On Paper or Online
Criteria for Deciding the Ideal Form for a Particular Document

Document Attribute	Document Form (On Paper or Online)
Relevance	The less relevance a document has (an overdraft notice, for example), the less there is to be gained from moving it into electronic form.
Dynamic content	Documents that require personalization or other alteration throughout their life cycles may be easier to change if they are in electronic form.
Frequency of change	The more often a document has to be altered, the greater the benefit from having it in electronic form.
Lifespan	If something has to be kept on file for a very long time (tax forms, for example), it's probably worth keeping in electronic form.
Regulatory requirements	Some documents have to exist on paper to meet the regulatory requirements of certain industries.

Source: Kemal Carr, "Integrating Paper and Online Documents," *Document Processing Technology,* October 2002.

- Retrieval, or the cost to access documents after they have been filed or archived. According to Gartner, "retrieving a misfiled document costs about $120,"[††] —or about six times the amount it typically costs to file a document. And consider the financial impact of that figure across an entire organization: If there are 10,000 employees in an organization who each have to retrieve just two misfiled documents in a year, the annual cost—a completely unnecessary cost, at that— for retrieving such documents would add up to $2.4 million. It may seem that electronic storage would address this problem by eliminating the human-error component, but as with filing, it's more complicated than just moving to an electronic alternative. For example, you may think it's faster and easier to retrieve an appropriately filed electronic document, but this is only true if you know the right keyword or filename or other key piece of identifying information. That's not a reason to avoid exploring electronic filing as a means of reducing costs, just a caution about the importance of making informed decisions.

Sample document-related costs

Copying a document	$18[1]
Filing a document	$20[1]
Retrieving a misfiled document	$120[1]
Managing files	$8200 per person per year[2]
Acquiring and managing printers and related equipment	1–3% of annual revenue[3]
Operating printer fleet	5% of annual IT budget[4]

[1]Gartner, "Document Management: Assessing Costs and Benefits," 27 September 2000

[2]CAP Ventures, "The Cost of Business Communication," 23 May 2002

[3]Gartner, "Printer and Copier Fleets: The Gold Mine in the Hallway," 19 August 2003

[4]Gartner, Managing Office Document Output in the Digital Era," 12 October 2000
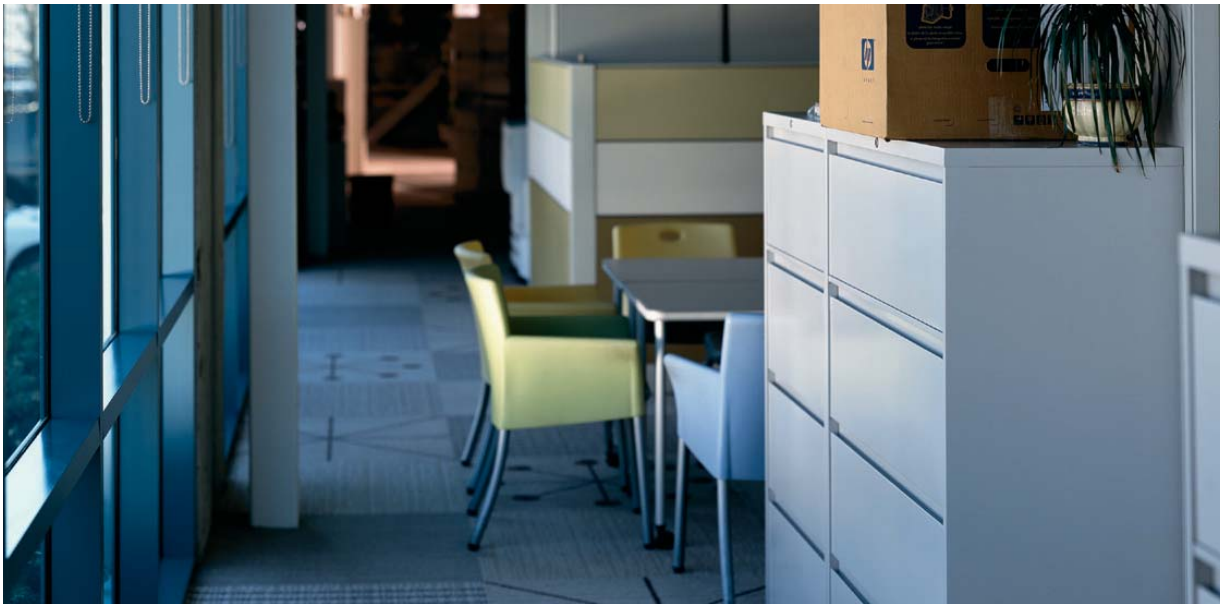
Examining the value of documents

Given the many ways in which paper and electronic documents can cost an organization, what are the ways in which they can they create value for it? Value lies in documents' ability to function strategically in the organization, by enabling processes or supporting products that generate value—or by serving as products in of themselves. Here's what that means.

The value of enabling processes

Inside any organization, there are documents that exist to make critical processes possible. These include everything from blueprints and building plans, to management reports and employee manuals, to purchase orders and invoices—the documents without which, literally, nothing would ever get done.

- Example: purchase order. A purchase order that includes all the information a company needs to ship out an order will make the order fulfillment process as efficient as possible. This efficiency helps to ensure prompt delivery and invoicing, which in turn hasten payment and revenue. The more an organization can do to make such a document work efficiently—by providing it as an online document, for example, to speed its delivery—the more value the document provides.

- Reverse scenario: A purchase order that is missing key information will delay fulfillment, which in turn will postpone the process for which the delayed goods are necessary. If the order was for building materials for a publicly funded project, for example, the job it was for will also be delayed, reflecting poorly on the ordering organization's stewardship of public funds. Further, payments associated with that job will also be delayed, adversely affecting the company providing the materials.

The value of supporting products

Whether it's a product warranty, maintenance information or user instructions, product-related documents can influence a product's ability to generate revenue. A document that makes it easier to use a product can also make the employee who needs that product more productive or make the customer who uses it more satisfied.

- Example: user's manual. The organization that provides easy access to instructional material ensures that the user can get up to speed on new technology faster—and start using it productively sooner.

- Reverse scenario: If a user ends up spending hours on the phone with the help desk trying to determine why a manual didn't print or why the pdf version wasn't delivered as promised, that not only delays productivity, it also actually costs the organization in terms of technical support.

The value of documents as products

For some organizations, documents themselves are products. An insurance policy, a legal brief, a medical report—these are just a few examples of documents that have value in and of themselves. If they fail to deliver the information they're supposed to, they put the organization at risk.

- Example: consultant's report. A document that provides timely information about issues affecting funding and budgets enables management and administrative staff to make and carry out informed decisions for improvement in these areas. This can bring considerable value to both the organization that uses the information and the company that provides it.

- Reverse scenario: A report that includes incomplete or out-of-date information will impede the ability to make and carry out good decisions in matters that could affect funding and budgets. This will delay value for the organization receiving the information, and it may seriously compromise the reputation of the company that provides the information.

Summary

As document complexity increases, organizations have more choices about how they generate, share and store documents. Understanding how those choices relate to the cost and value of documents is important to developing a strategy for using documents both effectively and cost-efficiently. This paper represents a first step in becoming familiar with some of the largely unrecognized issues of cost and value that documents present today.

Key terms

Document. A written record of information produced on paper or as an electronic file (or both).

Document strategy. A plan for improving documents and the processes that support them and are served by them.

Output. Materials produced by printers, copiers, fax machines or scanners.

Output strategy. A plan to impose structure and metrics on the output environment so that it operates more effectively and efficiently.

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Notes

* Abigail J. Sellen and Richard H.R. Harper, *The Myth of the Paperless Office* (Cambridge, Massachusetts and London, England: M.I.T. Press, 2002), 13.

** Nick Shuttleworth, "Your office document strategy: Adopting a balanced deployment approach," *Facilities Manager* 2003.

† Gartner, "User Wants and Needs 2000: The Digital Difference," L. Ritter et al., 26 February 2001.

†† Gartner, "Document Management: Assessing Costs and Benefits," D. Logan, 27 September 2000.

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