THE QUEST FOR THE PAPERLESS OFFICE

INFORMATIONAL ARTICLE

The Quest for the "Paperless" Office, the Loch Ness Monster, and the Holy Grail

(By Richard A. Quinn, EDP/edit.).

Ok, maybe not the Loch Ness Monster, since we have pictorial proof that myth might actually be true. Certainly not the Holy Grail--we know the Grail exists--we just don't know where it currently resides. So, if Nessie might not be a myth, and the Grail might not be a myth, are we safe in assuming that the paperless office also might not be a myth? Yeah, Right--and I have some swamp land in Florida for sale. Well actually, that's not quite true. I do have some swamp land in Florida--but that's another story.

Long ago, in a land far away
It's hard to believe that almost 30 years has gone by since I first heard the proclamation of the imminent demise of paper in the office. We were kicking around the idea for mass-storage devices that could hold all of a company's paper documents. Defining the size of the devices would be easy--after all 30 years ago it was estimated that the entire contents of the Library of Congress was approximately 23 terabytes. It made absolute sense that a given company would never have a need to save more paper than the Library of Congress. So, we set out to produce a storage device large enough to hold the Library of Congress. We figured that would be the end of paper in the office, and we--like others before and since--declared victory and moved on. There were only four little things wrong with our theory: the growth of the "information age", rapid and uncontrolled changes in technology, increasing interference of governments in business practices, and the "graying" of society. Other than that, it was a brilliant plan.

The older you get, the more string you save
As we age, we create a trail of documentation that chronicles our lives. From medical records to insurance policies to tax returns to credit histories, everything we do, touch, or say ends up in someone's files somewhere. We generally don't care who has what, as long as we can get it back when we need it. We do care, deeply, that whatever that trail holds about us is accurate and accessible. Therein lies the first fatal flaw in the myth of the paperless office--retrievability.

Information has two major functions within a business, either to generate new revenue for the business, or to preserve the revenue that a business already enjoys. In the first function, businesses use and, hopefully, re-use information about their past, current, and prospective customers in order to find and develop new and existing markets and products. Any scrap of

information that might shed light on the preferences of a potential customer is saved on the often times slim chance that it might prove valuable for the next campaign. Couple that business "necessity" with the very real fact that the people managing most businesses are the sons and daughters of the Great Depression generation, and it becomes obvious that we as responsible businesses never throw anything away.

When we function information to preserve the revenue that a business already enjoys, we encounter an even more daunting problem with retrievability. We hope we'll never need the information so we historically have exercised very little care in how or where it is stored. Systems that are designed to deal with the dynamics of revenue generation are often ill equipped to deal with the static nature of historical data. We create multiple environments to manage disparate data sources, and then we wonder why our use of paper goes up rather than down as we intended.

We're from the government, we're here to help you Just when you think you can finally crawl out from under that mountain of paper and into the light of the paperless office, along comes a corporate bankruptcy or two, complete with government outcries about shoddy record-keeping, and you're back to the same old game of save it or else. The trend in the past ten years has been for increasing legislative intervention in business practices. Few would argue that some, if not all, of that intervention is unwarranted given the recent rash of corporate disasters, but the net result is the same. Increasing government attention creates the second fatal flaw in the myth of the paperless office--accountability.

Simply put, the more likely we as businesses are to have to account to some outside agency, or feel that we will be subject to such scrutiny in the future, the less likely we are to change the way in which we generate, use, or store information. The need for the "throw-away" document to deflect inquiry into business operations makes a compelling argument for maintaining the status quo. If we don't store documents entirely in digital form, we will always have the paper document crutch to lean on when pressed. The paper document still, by most government standards, is the format of legal choice. It seems as though the only time that the digital document comes in to view is when the paper document is missing. We also are much less likely to entrust sensitive, mission critical information to a completely non-paper form for fear that we will lose it (there's that string saving thing again) or that it will fall into the wrong hands.

If I knew where it went, I'd know why I put it there

I normally try and steer clear of technology discussions, since technology is merely a tool--the functional equivalent of the hammer. Unfortunately, when in search of the paperless office, technology has been looked upon as some type of magic potion. Stir up the environment, throw in a heavy dose of technology, mutter a few choice mystical incantations like "this will solve all of your problems" or "if you take this approach you'll never have to worry about your data again", wave a magic wand and-- poof--the paperless office will magically appear. Belief in the all-powerful siren's song of technology creates the third fatal flaw in the myth of the paperless office--adaptability.

The requirement to maintain an information repository varies widely by industry. Some industries, such as the insurance industry, are required to keep information on file for the life of the policyholder. Medical records have to be maintained for seven years. Nuclear power plants must keep records for fifty years. Tax records need to be saved for only three years, unless you're accused of cheating on your taxes--then the government can go back seven years. There's always a little added "gotcha" with the government.

The litany can go on forever, but the message is the same--every time you introduce new data management technology into the mix, you need to go back to everything that you've done before and make sure that you can still find and retrieve it intact. Paper, or more accurately in this case, the image of paper on microfilm or optical disks, is still the only known medium that provides organizations with the ability to adapt their business practices to a rapidly changing environment without sacrificing their ability to retrieve important records when necessary. What do we do when we retrieve these records? We print them--not because we like to print them, but usually because we have to share them with someone who doesn't have the same version of imaging technology that we have. What do they do with the information when the receive it? They either file it in its paper form, or they re-scan it into their systems--and the cycle of paper-to-image-to-paper begins once again. If only we didn't have to share.

If I knew you wanted that, I would have given you that The fourth, and in my estimation, the most significant fatal flaw in the myth of the paperless office is the sheer magnitude of the information flowing around the globe. When I was writing this article, I generated about 330 words per page. For argument sake, let's use those 330 words as a "standard" measure of a document page. In 1997, the Xplor Technology Direction Survey

estimated that paper-based business documents accounted for about 70% of the 400 billion pages of document information required by businesses. The survey went on to estimate that by 2002, the amount of paper-based documents--as a percentage of the total--would drop in half, to 35%. So, we're well on our way to the paperless office, right? Wrong! The survey also estimated that the total number of pages of business information would more than double in those same five years--to more than 800 billion pages. I realize that I have a defective math gene, but even I can do this one. 70% of 400 billion is 280 billion. 35% of 800 billion is 280 billion. So, after five of the most intense years in the in history of the war against paper in the office, we've barely broken even.

Simply put, the more ways we can cut the information that we have in order to create a new customer segment, insulate ourselves against litigation, or protect our archives for future generations, the more ways we are compelled to cut the information. In the final analysis, we--not the technology, not the government, not even the customer--are the instruments of our own destruction. We create an environment in which we are forced by our corporate need to create or sustain some type of competitive advantage to continually increase our use of paper as a way to stay even with the curve.

Now for the bad news
On the 2t5h anniversary of the electronic document systems industry, and the 30th anniversary of the start of my career, I don't see us ever crawling completely out from under the weight of paper in the office. Certainly we will continue to drive the consumption of paper down--at least as a percentage of the total--but it will never completely disappear.

An old industry pundit proclaimed "We'll see the paperless office as soon as we see the paperless toilet." Well, we've had the paperless toilet for about five years now--the Japanese perfected it--but we're still barely break-even on our war against paper. By the way, the paperless toilets were test-marketed in New York City and they failed. Not because they didn't work as they were advertised, but because for 25 cents, you had a place to stay overnight if you were down on your luck.

At the end of the day, my guess is that most of us aren't really all that disappointed that office paper hasn't gone away. After all, someone has to have the job of shuffling all that paper around. Come to think of it, I never trusted that save button on my computer. I think I'll print a hard copy of this article for my files.

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