## Are Printed Publications Becoming Obsolete?

## By Jesse Yoder

As someone who at least makes an effort to get published from time to time in various industry journals, I have recently had an interesting experience.

I am finding in talking to editors that they invariably say that they are cutting back on the number and length of articles in their publications, due to lack of advertising support. I find this very interesting.

Several years ago when people started trumpeting the end of the printed page as we know it, I remained very skeptical. I figured that there is something magical about reading print off a physical page. People will always want their newspaper delivered to their front door, and they will also want journals and books they can hold in their hands.

Then the Internet and Dot.com bust came, and some of the anti-printed page hysteria died down. I'm not saying that it's back, but possibly some of the predictions made earlier about print journalism are coming true. I think there are several reasons for this.

- 1. Computer monitors are more user-friendly, and they are larger. Flat screen monitors and other technology improvements make them easier to read from.
- 2. There is no doubt that some companies are shifting many of their advertising dollars to the Internet. This could be to pay for a banner ad, or it could simply be money ploughed into the development of their own websites.
- 3. Print is static, while electronic media is dynamic. It is impossible to interact with a book or a printed journal, while printed media offers the possibility of hyperlinks, motion, etc.
- 4. The cost of delivery of printed media is high compared to electronic delivery. It is expensive to print all those color photos, then pay to mail them to thousands of people. Electronic delivery is instant and virtually cost-free.

I could go on. But my question is, What is going through the minds of the editors of instrumentation journals? Are they in fact looking south while a giant freight train quietly approaches them from the north? In ten years, will there still be hardcopies of journals like InTech, Control, Control Engineering, Control Solutions, etc.? Or will the delivery methods of these media giants have fundamentally changed?

I can report that in the area of market research, some companies are now thinking of the electronic version of a study as the product, with the printed version an add-on. We are moving more towards making the electronic version of these studies our main product.

How long will electronic format be available? It's easy to think, as you receive another copy of this month's Control magazine in the mail, that "this will never change; nothing can ever change the wonderfulness of receiving a bound publication I can hold in my hand." Yet if you project ahead five years, where will this publication be? It will be a lot easier then to find an electronic version of a publication, if it exists, than to go to a library and sort through stacks of magazines.

Of course, electronic format can have its perils. I'm finding now that some articles I've written that were published as recently as 1997 are no longer available in electronic format because the electronic versions have been lost.

Many people who grew up when hardcopy was all there was have developed an affection for underlining text and for using post-it notes to mark a spot. But what about the next generation, that grows up with predominantly electronic text? Will they also harbor the same affection for books and papers that those of us from the "paper era" do? Probably not. So perhaps those people who hold printed paper in high esteem are a dying breed.

People sometimes make a similar contrast between instrument engineers who have been in the business for many years and the newer people who mainly work with computers. Electronic delivery and format is changing rapidly, and may be more user-friendly in five years.

Magazine editors are consciously publishing shorter articles. Typically what I am finding in terms of article length is that editors who formerly would ask for articles of 2200 to 2800 words, are now asking for 1400 to 1800 words. I think it is a sign of the times. Just for laughs, I looked at the length of a few old issues of several pubs, with the following results:

## Intech:

July 1999: 194 pages June 2000: 116 pages

January 2002 (with Industrial Computing!): 52 pages

Is this something like Moore's law in reverse? The length of a print publication will be reduced by 50 percent every year, while cost remains constant.

Looking at Control Engineering, we have a similar result:

Control Engineering:

October 1999: 136 pages January 2002: 52 pages

Sensors Magazine

Sept. 1999: 168 pages October 2001: 68 pages

I think this is a lot like the idea of putting a turtle in a pot and very slowly heating the water to boiling. The idea is that, if the pot is heated slowly enough, the turtle will never notice that he's being cooked because the changes are so slow. These changes have been implemented so slowly over the past three years, that it's not till we're pretty much cooked that we realize - "Hey, we're only getting 25 percent as much information as before, yet we're still paying the same price!" (or more).

One publication that is bucking the downsizing trend is Control. Though the average size has been reduced somewhat from 100+ to 75 to 85 pages, Control is still publishing solid, lengthy articles.

This discussion makes me think that it would be worthwhile to assemble a list of the instrumentation-related publications. Since many of them have acquired the look of a supermodel, it may be necessary to read more of them to maintain the same nutritious diet of industry information. I am also interested in pubs. that follow particular industries. So here's a start, in no particular order.

Control
Intech
Flow Control
Control Solutions
Measurement & Control
Control Engineering
Pipeline & Gas Journal
Processing
Chemical Engineering
Chemical Engineering News
Sensors

I realize that both Putman and Cahners produce a wide variety of other publications not listed here.

In terms of the electronic media vs. print debate, in my opinion, the battle has already been fought and electronic media has won. I say this because so much writing and communication occurs now via email and electronically. Most people who can afford a computer today use a word processor to write. While the telephone pretty much replaced the personal letter, now email is making a huge dent in telephone conversation. People have laptops, palm pilots, cellphones, and various other means of personal communication.

In fact, to frame this is an Internet vs. print question is really too narrow a way to look at the question. It's really a question of printed material vs. electronic media as a form of communication. If you look at it that way, and you include in electronic media things like

the Internet, computers, email, telephones, cellphones, notepads, you can see that print is really down there on the list in importance.

Looking at this discussion from a broader perspective, you see that what we're talking about is communicating thoughts and ideas. Thoughts and ideas can be represented electronically, through sound (like a telephone), or in ink on paper. But what's so magical about taking a pen or pencil and writing letters and words on a white piece of paper? The Egyptians did this, only they used papyrus. The advantages are mainly that the paper will still be around tomorrow, and that the resolution of black ink on white paper makes very easy reading. Also, paper is transportable, as long as the post office is willing to deliver the mail.

If you look at electronic media, especially computers, you will see that they have almost achieved the advantages of paper communication. Anything you write on the computer can be instantly retrieved, so that's about as good as being around till tomorrow, assuming your computer doesn't crash. I think that a lot of people object to doing extensive reading on a screen because of the poor resolution. But there have been a lot of improvements. A 19-inch screen with good contrast can make for very comfortable reading. Laptops are less satisfactory. As for transportability, email is the electronic answer to that.

On the other hand, electronic text has a lot of advantages of printed material. For one thing, it's easily revised. Secondly, the presence of hypertext links makes it possible to provide much more in depth information than print. Third, it is much easier and cheaper to present information in color electronically than in hardcopy form. Take your favorite old copy of any printed book - mine is Descartes' Meditations - and imagine it in electronic form, complete with links to amplify the meaning of certain words, and color pictures to illustrate ideas or show how certain places look. Now you know why electronic media is already superior to printed material.

For those who like to underline and put on post-it notes, I am confident that word processors will, if they haven't already, develop parallel capabilities.

Still, there is the convenience factor. It's easier to pick up a paper, book, or magazine in the morning and read it in the living room in the morning while drinking coffee, instead of having to go to the computer, sit down, and read online.

Well, who can doubt that soon, thin portable, electronic screens will exist that are almost as portable as a book or magazine, that allow you to read with good resolution a wide variety of books and magazines. And connectivity to the Internet will increase the options (although unfortunately the Internet is now becoming so cluttered with ads that its value is rapidly diminishing). In fact, these screens probably already exist.

So my answer to the question "Are Print Publications Doomed?" is "No, they are not doomed, but they are losing the battle to electronic media in many areas."