Documentation Aerobics: Toning and Streamlining Your "Body of Documentation"

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ABSTRACT
This paper presents techniques and opportunities for creating targeted, lean, effective documentation and information to free your time and your readers' time for other important projects.

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1. INTRODUCTION: DOES YOUR LIBRARY NEED THIS WORKOUT?

- Have some of your publications gotten flabby? Have all the rewrites and updates left them serviceable but overweight and awkward?

- Has technology outpaced your content? Is your library losing ground with each lap around the technology track?

- Is it time to show some creative muscle with your publications?

- Do your writers get too much of a workout trying to keep up with the workload?

If yes, then it's time to think about toning up your technical communications by using some techniques and finding opportunities to achieve a lean and sculpted "body of documentation."

LEAVE THIS TEXT BOX IN PLACE

AND BLANK

2. WARMING UP: WHERE TO START WITH RE-ENGINEERING
At Cornell Information Technologies, re-engineering (or rethinking) our technical publications library is an ongoing process. We constantly scan the collection and ask:

- What pieces of information should be merged or separated?

- What can be simplified?

- What can we stop doing?

- What should we start doing?

- What can be moved to the web?

- What needs to be in paper form?

- Can this information piggyback on, or be included with, documents published by other groups on campus?

- Does this information need a different emphasis in terms of content or a new look?

- Are we focusing on the right content?

- Can we use vendor documentation instead of writing our own?

Our impetus for such thinking and examination comes from the constant pressure to do more: to document more services and products, to give more details and "how to" information about current services, to do a better job disseminating news and urgent information to the campus. Yet, as we all know, the human resources and funds to get all this done are scarce. Our solution has been to search for opportunities that allow us to collapse the writing, development time, or production time of an information product without sacrificing content or visual appeal. We feel our end product is consistently better for the audience, timelier, easier to absorb and use, and more appealing and engaging in terms of design!

Where can you find these amazing opportunities? The next sections present some ideas.

3. IDENTIFYING OPPORTUNITIES
Some of the best re-engineering opportunities emerge when you track changes in technology and in your audience and respond to

these changes. You should also actively pursue new and alternative ways to produce and deliver publications and information to save time, money, and effort.

3.1 Watch for and Advocate Technology Solutions to Complex Processes

These solutions give you the opportunity to simplify your documentation, and, even more importantly, make using technology, easier for the customer.

At Cornell, we've taken advantage of technology changes in the following areas and consequently simplified our publications.

3.1.1 ResNet Get Connected Instructions

The introduction of dynamic addressing in the residence halls, where students are automatically assigned IP addresses, gateway addresses, and subnets, allowed us to remove several pages of instructions from the our *Get Connected with ResNet* booklet. This booklet is a very glossy piece that is expensive to create and produce, so *any* savings associated with it are a positive. Also, we want the "get connected" experience in the residence halls to be as straightforward as possible, so saving students and their parents the headache of a few "get connected" steps is important.

Examples: Before and after editions of *Get Connected with ResNet*

3.1.2 ResNet Subscription Service

When ResNet first started, we subscribed students by sending them an informational brochure during the summer, which contained a description of ResNet and a subscription form. It was a professionally designed, two-color, expensive to develop, print, and mail piece. However, we felt we had to put this money and effort into it because, at Cornell, students pay extra for ResNet; it isn't part of the room rate.

In fall 1999, the subscription process was changed, thanks to the web, so that students could subscribe online when they arrived on campus as part of the "get connected" process instead of using a paper form.

From a documentation point of view, we were able to respond to this change in two stages.

Stage 1

For fall 1999, we continued to publish the ResNet brochure but we were able to make it more compact by removing the subscription form. Because we were already changing the publication significantly, we took a second look at it and realized we could reduce the general information in it about the Internet. The Internet has become pervasive in the culture in just the few years since ResNet had been established, but we were still talking about it like it was a new thing. Out it went!

Results:

- we had a smaller, more compact brochure for 1999, but

- it was still a lot of work to produce and

- mailing it posed both expense and problems.

We had to do better.

Examples: *1998 ResNet* brochure vs. *1999 ResNet* brochures.

Stage 2

We realized that our audience for this piece was new, incoming students—the same ones served by *Cornell Bound*, a multi-topic book produced by Campus Life that goes to all new students as soon as they accept a spot at Cornell. Production on that book begins in the fall before its spring publication. We already had one page of general computing information in *Cornell Bound*—why not more? We contacted Campus Life and asked if they would entertain a proposal to include more ResNet information in *Cornell Bound*. After a meeting, it turned out they would indeed. Not only did they give us more pages (three in all), they also arranged a special, CIT-only deadline so that we could include the latest computer recommendations.

Results:

- We got ResNet information into an existing, important publication for new students.

- We got out of the expensive brochure business and drastically reduced publication costs.

- Families receive *Cornell Bound* in May/June, and if they want to buy a computer for their students' high school graduation, they can confidently do so armed with Cornell's ResNet and computer recommendations information.

- We continue to produce a one-page combined ResNet/ResPhone publication that costs less than $800.00. We put it in the housing folder as a reminder of these services and also use it at the information fair associated with Registration.

Examples: *Cornell Bound* and a new, more compact, combination *ResNet/ResPhone* flyer.

3.1.3 Get Connected Windows 9.x Dial-up

A technologist in the organization saw a way to automate the information that goes in various control panels when you set up Windows dial-up service. Our tech writer was able to dramatically reduce the size of the get connected documentation because of this piece of automation. We maintain the step-by-step long form of the instructions only on the web.

Examples: *Get Connected with Windows 9.x* vs. the long step-by-step version

3.1.4 ResPhone PINs

In 1999, CIT was able to introduce PINs for billing residence hall calls to bursar bills. Up until then, a "responsible student" in each room accepted responsibility for receiving and paying phone bills, filled out paperwork, etc. This system required detailed explanations in documentation, extra forms, etc. With the PIN

system, we've been able to jettison information about responsible students and simplify our information.

Results:

1998 ResPhone Publications (Pre-PIN) (9 Products)

1. ResPhone information, sign-up card & envelope **(2 parts)**
2. ResPhone brochure **(expensive, time consuming)**
3. Using the Phone in Your Room, summer edition
4. Using the Phone in Your Room, fall edition
5. AUDIX (voice mail) sign up sheet
6. ResPhone fact sheet
7. ResPhone baggie (for sign up card, booklet, and AUDIX sign up sheet)
8. ResPhone web site
9. ResPhone information in university phone directory

1999 ResPhone Publications (PINs introduced) (11 products)

1. Spring announcement to returning students—PINs are coming in the fall!
2. Using the Phone in Your Room, fall edition
3. Using the Phone in Your Room, summer edition
4. Using the Phone in Your Room, Hasbrouck edition
5. Redesigned AUDIX sign up sheet
6. ResPhone FAQ for new students (in housing contract)
7. Room information envelope (for booklet and AUDIX sign up form)
8. PIN letter
9. PIN letter envelope (for security)
10. ResPhone web site
11. ResPhone information in university phone directory

2000 ResPhone Publications (PINs mature) (8 products, 4 of which required minimal effort)

1. Using the Phone in Your Room, summer edition
2. Using the Phone in Your Room, fall edition
3. ResPhone/ResNet flyer **(does double-duty for ResNet)**
4. PIN letter **(minor update only)**
5. PIN envelope (**reprint only**)
6. ResPhone web site
7. ResPhone information in university phone directory
8. Electronic reminder to remember your PIN when you return in the fall

Examples: Selected items from above lists.

3.2 Respond to Changes in Your Audience

We're putting our money where students' mouths are! We've accepted that students have a high degree of comfort with network services, so we've slimmed down *some* paper documentation and put details on the web.

- We expanded a lab card to include a schedule, lab locations, and essential get started information.

  Example: *Before and after lab schedules.*

- We moved detailed information about using network services in labs from paper to the web and put the URL on the redesigned lab card.

- We continue to provide policy information in paper form at the request of the lab manager and distribute it to each new student

Example: Lab suite of publicaitons

Note: We probably would not make a similar decision for documentation aimed at faculty/staff because they are often not as comfortable with technology.

3.3 Work Feedback and Political Footballs into Your Re-engineering Strategy

3.3.1 Security Information

Computer and network security is important at Cornell. We had published and maintained an expensive brochure for at least five years that preached the importance of security, discussed Kerberos, summarized policies, and explained who to contact for security or privacy breaches. We gave it to every new student and employee, but we had the feeling no one was reading it because it looked dense and hard to read. We even gave it to our new security coordinator who promptly forgot it existed. He also couldn't find our extensive security/privacy/policy information on the web and told us we should be developing information we knew was already there.

Example: *Protect Your Privacy*

We agreed that we had a problem. We developed a two-part proposal:

Part 1
Create a security insert for our successful *Computing at Cornell* tabloid. By placing it in the tabloid we could:
- overhaul content and design for a more updated approach
- use the same production process we were already engaged in for the rest of the tabloid
- reduce costs
- vastly increase circulation

Part 2
Create an umbrella web site for security-related topics to make it much easier to locate information on the web.

Examples: *Security supplement and web site*

The security supplement and the web site were created in parallel so we could use the web site to provide supporting detail to the introductory information in the supplement.

Although we were coaxed into these projects because of feedback that our current products weren't working, we used the "opportunity" to reduce overhead on the print component and increase usability of both the print and web communications.

3.4 Seize Every Opportunity to Use the Web and Printed Documentation in a Complementary Way

Because it is easier, faster, and cheaper to publish on the web than it is on paper, we like to use it as much as we legitimately can. We have a "no apologies" strategy of printing basic introductory information, liberally laced with URLs, in paper form and publishing detailed information on the web.

The *Computing at Cornell* tabloid is a good example of a project where we intentionally married the paper publication to the web site.

Examples*: Computing at Cornell* tabloid and *Computing at Cornell* web site

The only documentation we are wholly committed to keeping in paper form is our get connected material. People who use it are not yet connected to the Internet yet, so it has to be in paper form. However, we're looking at some of our audiences for this information and considering whether pieces used mostly by support providers can be moved to the web.

We also print a lot of "how to" information as a service to our audience. For many of us, it's a lot nicer to work from paper instructions while doing a new task on the computer instead of jumping between an explanatory web page and an application. Most of these "how tos" are also on the web. To be honest, we're not sure we should be doing both—it's an area for exploration.

The "get connected" and "how to" information we produce in paper form is *always* supplemented with URLs for related information.

3.5 Find Ways to Ease the Print Production Burden

Print production is a huge time sink for us. Although we are actively evaluating other tools, historically we are a Macintosh/PageMaker shop. These tools seem very prone to crashes, data corruption, loss, etc., so the process of developing the file from which to print a document is onerous. Secondly, printing, at least at Cornell, isn't done the same way twice. Purchasing changes its rules and vendors. Vendors that were good last year aren't good this year. In short, it's an exercise to be avoided if we legitimately can.

What are the options?
- First, reduce paper publications by printing only what you have to print and moving the rest to the web. Then:

- Create templates so you don't have to re-invent the look of every document and so your paper library looks consistent. You can have these professionally designed and then maintain them yourself.

  Example: *Templates*

- Sub-contract or outsource whatever you can to freelancers and publications service groups on campus. Amazingly enough, sometimes you can't get money for more people but you can get money to buy services. Mine other resources in the university!

  Examples: *Computing at Cornell* tabloid*, Get Connected with ResNet, ResNet/ResPhone* flyer

- Find out about single-sourcing and new tools—a process we're starting now.

4. What's Next on the Hit List?
Re-engineering never stops. We're focused on these possibilities:
- **Ethernet get connected instructions for faculty and staff.** Can we move this information to the web? Most faculty and staff have a support provider who sets up their office computers for them.
- **Computing at Cornell orientation envelopes for new faculty and staff.** Can we give them only our introductory tabloid and save the headaches of assembling 2500 envelopes?
- **Desktop Computer Recommendations.** Do we really need a booklet? It's all on the web and the same information is introduced in the tabloid. If we need a booklet are we providing it to the right audience?
- **Better production practices**. How much time can we gain by switching to a more robust desktop publishing tool? Are there time savings to be found through single sourcing and content management?
- **Automating our news operation**. We're developing a database and form to input headlines, lead paragraphs, and body paragraphs and then outputting the pieces we need on web pages, in mailing lists, in news headlines, etc. We're hoping to cut down on massaging the same information for various media.

Where will the time savings go if any of these ideas are successfully implemented?
- Explaining new fees and costing strategies to the campus
- "How to" information for palm tops
- Documentation for LDAP
- An intranet for CIT
- A new external home page for CIT
- Involvement in RFPs and RFIs
- Template development for the whole department
- Portals support
- Next generation Computing at Cornell web site

5. WHY TAKE TIME TO "EXERCISE" THESE STEPS FOR RE-ENGINEERING PUBLICATIONS?

5.1 Create Time for New Technology

Sometime its easier to do things the same old way; after all it takes time, energy, brains, and sometimes a few false starts to do something in a new way and who has time for that?! But the truth is that we have to innovate, streamline, and make sensible use of both printed matter and the web, if we're going to make time and free up money to attend to the new technologies nipping at our heels. This past year we dropped support for very few technologies and we had to add documentation development for CorporateTime, a campus wide calendar service. By fall 2000, we'll be adding support for a new wireless service and figuring out how to communicate new rates and fees to the campus. New services appear on our plates faster than old ones are phased out, so we have to find ways to be lean and effective.

5.2 Maintain Sanity

We also have to stay sane. We can't continue to do more and more using the same old models or we'll soon to working 24 hours a day and still not getting everything done. Innovating and streamlining help avoid burnout, stimulate creative problem-solving, and teach staffers that they don't have to be victims of the hectic technology work place if they are smart enough to find a better way.

5.3 Be Kind to Readers

We constantly hear that people don't read. Whether that's true or not, people certainly don't have the discretionary time or inclination to read poorly crafted technical documentation or explanations. We must respond to this reality *and* recapture both out time and our readers' time by creating lean documents that lead interested readers to more detail elsewhere. A lean document that is inviting and less intimidating to pick up may ultimately reach a larger audience. It can then point to web site or other documents where there are more resources and details for those who need them.

6. ACKNOWLEDGMENTS