

# The Write Tools for the Job:

Choosing the right technology for the work you do



Ian Lurie  
The Written Word, Inc.  
[www.writtenword.com](http://www.writtenword.com)

## Abstract

Word processors, graphics software, page layout programs . . . a dizzying array of software tools play a constantly increasing role in the day-to-day success of technical communicators. Learn how to select the technology that allows you to create the best-quality product, while still balancing budget and deadline constraints.

## Keywords

Documentation tools, software selection, software upgrades, technology

## Introduction

*"There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things."*

The Prince, Niccolo Machiavelli

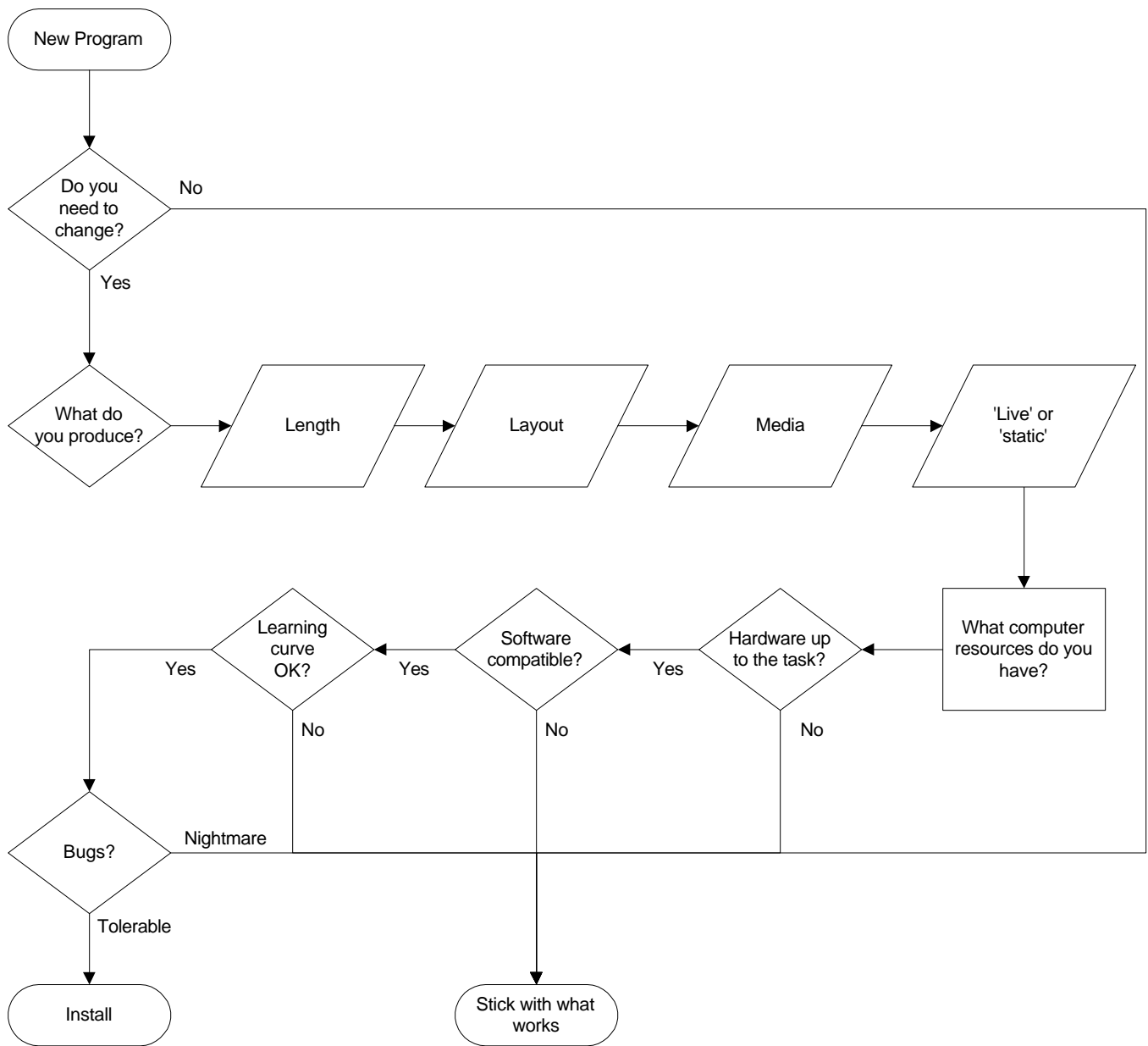
When Machiavelli made this statement centuries ago, he probably was not considering software upgrades. However, when your boss or an employee comes into your office singing the praises of the newest computer gadget, and demanding an immediate upgrade, you can feel some sympathy for Niccolo. The introduction of new software to your office may wreak havoc similar to the reorganization of a city-state in Renaissance Italy.

Technical communicators explain and record technology and technical information for an audience. However, technology often traps us: The technology we use to increase our efficiency as writers can reduce our effectiveness as communicators.

There is an increasing range of software available to us as we create manuals, brochures and online presentations. The options and power available promise that savvy communicators can streamline their work processes. Unfortunately, the sea of product offerings can be more of a curse than a help – with the tremendous array of choices, how can a technical communicator select the right software, without becoming a full-time software tester?

The answer lies in a structured approach to how we evaluate our software needs. This paper will provide guidelines for selecting technology that enhances your productivity and work quality, while balancing snappy features against time and budget constraints. The guidelines may be divided into two areas:

- **Needs evaluation:** Do you need to change?
- **Product Evaluation:** How to select the right tool.



**Figure 1: The software assessment process discussed in this paper.**

To support your efforts in these two areas, this paper also discusses bugs and how to minimize their effect, how to learn about software before purchasing it, and how to avoid the ‘upgrade spiral’.

## Do You Need To Change?

Far too many computer users purchase new software without a clear answer to this question. Do you really need a new program? When you consider this question, remember:

- Moving to a new program is **never** as simple as you think it will be. I have never helped a client install any new software, from a simple word processor to an HTML editing suite, without encountering a few potholes.
- Moving to a new program will **always** cost you money. Even if you win the software in a raffle, it will require time to install, configure, and learn, and may also require hardware upgrades to your existing computers.
- There is a great deal to be said for ‘tried and true’ methods. If you are happy with the way you or your team produces, think twice about rocking the boat.
- On the other hand, you do need to keep up with other computer users. If someone sends you a Word '95 document, but you are still using Word 2.0, you may have a problem.

So when should you consider moving to a new tool, or adding new applications to your software collection? The effectiveness gained by moving to a new application should far outweigh the time, dollar, and aggravation costs created by that move. This may seem obvious, but make sure you ask yourself this question when you are caught up in the rush of excitement at the prospect of a new software suite that promises slick, award-winning publications the first time you plug it in.

If you pass this threshold test, then consider the next section your guide to selecting the optimum tools for your work.

## Decisions, Decisions: Picking the Right Tool

The right word processor or other program can make your projects easier. The wrong selection can leave you feeling more like a software troubleshooter than a technical communicator, and can mean wasted time and frustration. When I select a tool, I typically ask myself three questions. They seem simple, but it is easy to lose sight of them and forget your goal:

- **What am I producing?** Does the type of document I produce require software with special features?
- **What computer resources do I have?** Will the tool I am selecting require that I upgrade computers? If so, is it worth it?

- **What learning curve will the software require?** Do I or my staff have time to learn a new tool? Will the time spent be worth it?

There are many issues embedded in these questions. Throughout this section, keep one concept in mind: Any software you purchase and install should make you more efficient, or enable you to perform tasks you could not previously perform.

### ***What Am I Producing?***

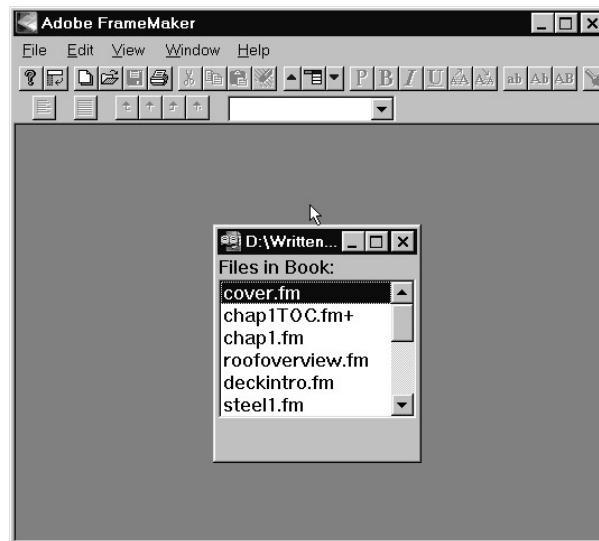
Evaluate the kind of work you do by asking four questions:

- How long are the documents I produce?
- Do I use and create complex document layouts, such as brochures?
- Do I deliver documentation online, in hard copy, or both?
- Do I create ‘live’ or ‘static’ documents?

### **Document Length**

Are you creating long manuals, with multiple chapters? Or do you typically produce white papers, brochures and other shorter documents?

If you produce long documents, make sure your software is up to the task of handling a multiple-file book. You can always create a book manually using any standard word processor. However, more specialized tools, such as Adobe FrameMaker® and Interleaf®, include the ability to automatically track and update page numbering, cross references, and even page and paragraph styles across multiple files in a project. These programs can also build and update a table of contents and index automatically. Features such as these can make your life a great deal easier by performing repetitive or tedious tasks for you.



**Figure 2: Adobe FrameMaker includes the ability to connect many files into a book file, which aids in large document processing.**

## Document Layout

Do you produce graphically rich materials with complex page layouts, or are you writing material with limited graphics and simple layouts?

The most complex page layouts require very specialized tools such as Adobe PageMaker®, Corel® Draw™ or Quark®. For the typical technical communicator, these programs involve a trade-off: The more graphic design and layout features a product offers, the farther it moves from the familiar look and feel of a word processor. However, the average word processor does not provide the user with the same level of control over individual graphic and text objects on the page.

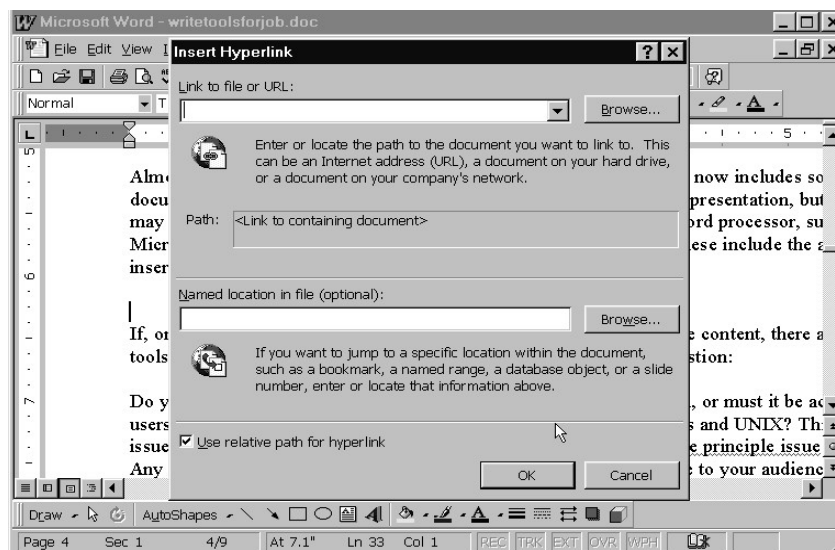
In addition, programs with more of a document layout focus allow for quick, easy reformatting of information – for example, if you prepare content both for online and hard copy delivery, a program such as FrameMaker allows you to write your content using one document layout or template, and then move the content to another template automatically.

Consider also how you write. Page layout software typically requires that you format text as you place it on the page – if you type away without considering format, you may have more work to do later. But it can be difficult to concentrate on what you are writing if you have to worry about page layout, paragraph formats, and character styles at the same time. If you do purchase a page layout program, count on buying a word processor, too. This will let you write your first draft, then move it to the layout software for formatting.

## Delivery Media

Do you prepare documentation for presentation online, in hard copy, or in both?

Almost every word processor and page layout program on the market now includes some online documentation capabilities. If you currently write only for hard copy presentation, but think you may someday move to online, consider sticking with an up-to-date word processor, such as Microsoft Word, Corel WordPerfect®, or Lotus® WordPro. All of these include the ability to insert hypertext into a document.



**Figure 3: Adding a hyperlink to a Microsoft Word '97 document**

If, on the other hand, you find yourself creating more and more online content, there are a host of tools available to you, and you must consider one very important question:

Do you develop online content for a single operating system platform, or must it be accessible to users on several different platforms, such as Macintosh OS, Windows and UNIX?

This is an issue that raises many other questions. While you consider it, keep the principal issue in mind: Any online documentation tool must deliver content that is accessible to your audience, without placing an additional training or financial burden on your client.

Most operating systems have platform-specific online documentation engines, such as Windows Help or UNIX man pages. If you are developing to a single platform, these tools may be ideal – they often offer enhancements that take advantage of unique features of that operating system. You can get information on platform-specific online engines from each operating system manufacturer.

If you must develop online content for cross-platform delivery, consider using HyperText Markup Language (HTML) or a document converter/reader, such as Adobe Acrobat®. Each solution has advantages and drawbacks: Document converters present the simplest solution for the author, while HTML presents the simplest solution for the reader.

Most word processors now include the ability to generate HTML from simple page layout automatically – you may also purchase an HTML editor, such as Adobe PageMill® or Microsoft FrontPage™, to create more complex online layouts in HTML. HTML is a nearly ideal online solution, because almost every computer user has and understands a typical web browser – your document viewer is already installed, and you do not have to worry about training users to read your material. In addition, you can tailor the look of your content to online viewing and navigation. With the software now available, you do not have to learn HTML code. However, HTML documents will not print well – if your documentation is slated for both online and hard copy delivery, I recommend using either a document converter/reader, or using the proprietary online functionality built into most word processors.

Document converters will take your creation and convert it to a proprietary format, which can be viewed on multiple platforms using an additional reader. For example, Adobe Acrobat® Exchange® creates a ‘PDF’ file, which can be viewed in UNIX, Windows or Mac OS using the free Acrobat Reader. Converted documents appear on the screen exactly as they will in hard copy – users can refer to page numbers in printed and online material without losing their way. In addition, the conversion process is typically simple -- Adobe's product allows you to convert any document through a one-step process.

Finally, you can simply add hypertext to your content using the features built into your word processor. If you own a word processor released in the last year or two, you probably have these features available. However, many of these features are specific to the word processor, so this method only works if you are using the same word processor as your audience, or if you can obtain a free, scaled-down version of the word processor for

distribution. Microsoft and Adobe, for example, offer Microsoft Word Viewer and FrameViewer for online document distribution.

Which one should you use? It may seem like there is a dizzying array of issues when considering release of online documentation. However, the primary issue when considering your tool for online documentation preparation is *accessibility*. When you are eyeing a shelf full of online products, repeat the mantra: The ideal online documentation tool delivers content accessible to your audience without forcing your client to purchase additional software or learn new procedures.

### **'Live' or 'static' documents?**

Do you create material that will be updated regularly, such as software manuals, or archival materials? Also, do you reuse items of information from one document to the next?

If you create archival materials – documentation that, once written, is never revised – then you do not need to consider these questions.

If you prepare material that will be updated regularly, make sure you use a tool that reliably and automatically updates features such as cross references, page numbering, and other elements of your documents that may change with revisions.

If you prepare information that will be reused and reorganized for multiple document formats, consider using a more advanced technology, such as Standardized Generic Markup Language, or SGML. SGML-compatible software 'tags' individual items of information, allowing for convenient copying or reorganization of completed content. However, SGML will almost certainly require training time, either self-paced or in a classroom. As a compromise, use software that can import different document layouts or templates to a single document. This would allow you to create a single document that could then be imported into one template for online viewing, another for hard copy, etc., with minimal work.

### ***What Computer Resources Do I Have?***

The last section provided you with a method to select the tool you need. But, before you purchase, consider what your computer can do.

It is far too easy to purchase the newest, hottest program on the market and return to your office with visions of spectacular product in your head, only to find that your computer does not have half the memory, or storage, or processor power, to run your purchase.

Before you purchase your software, read the side of the box. Can your computer run the software? If you are not sure, talk to the manufacturer, or to a software salesperson you trust. If your computer is not up to the task, all is not lost – it may be worth your while to upgrade your computer. Hard drive storage is almost always a good investment – hard disk drives are very inexpensive. Memory is also fairly inexpensive now, and may be worth it. If the software requires a faster processor on your computer, think twice – a processor upgrade almost always requires other changes to the computer, and often costs as much as buying a new computer.



To upgrade or not to upgrade is a judgment call, but I usually apply two rules of thumb:

- If the hardware upgrade costs more than the software, forget it.
- If you have to buy a new computer, think twice.

These are not hard and fast rules – if you want to upgrade your machine anyway, do not let this paper stop you. Just consider carefully, and beware the upgrade spiral: Make sure that, if you think you require upgrade A, that really is *all* you require. Upgrade A may be reasonable, but by the time you get through with B-Z, you may be better off with a new computer.

### ***What Learning Curve will the Software Require?***

Now, you know what you want, and you know that your computer can run it. Consider one final factor: How much training will the new product require? Do you have time?

When answering these questions, consider your willingness to learn another tool, your deadline pressures, and what you can already do. The short-term burdens created by a tool that will lead to long-term gains in productivity and quality are almost always worth it. However, if the new tool may cause you to miss a deadline, consider moving to the new product later, or count on putting in time during your off hours.

When you estimate how much time it will take to install and learn the new tool, use this formula:

Actual learning curve = 3 X estimated learning curve

Even the simplest software can contain some features that you simply could not anticipate having to relearn. FrameMaker, for example, approaches document production in an entirely different manner than Microsoft Word. If you move from one to the other, you will have to learn a whole new documentation paradigm. It is often worth it, but it takes time, and it always takes more time than you think.

Communicators also often forget two ‘hidden’ time sinks in a tools transition, to their peril:

- **Political Issues:** Do you have a department of die-hard MS Word users? If so, how will they take to switching to Lotus WordPro?
- **Training the Trainers:** If you are moving to a new tool in a very large department, you may only have the resources to purchase training for a few writers. These writers are then responsible for training everyone else. This creates an additional time requirement, as those writers are not working on projects. If you are a one-person operation, or are managing a transition to a new tool for a very small department then this may not be a concern.

### **Bugs: The Six Month Rule**

I have many clients, and many colleagues, who purchase the newest, hottest software the instant it hits the shelves. They inevitably pay for this in aggravation and time lost due to

what software manufacturers call ‘undocumented features’. Today’s software market has all major manufacturers rushing their products to the shelves – they rarely test the products thoroughly, relying instead upon us, the patient public, to purchase and test the applications for them. Our phone calls and emails become the basis for a second, more robust product release.

*Always assume the first release is a beta release.* These products are never perfect in their first release, and they almost always have at least one problem that makes them extremely frustrating for a technical communicator. Never buy a new software product off of the shelf until it has been on the market for at least six months. This allows the software gurus to review the product and tell you about the quirks and disasters that lurk inside the shrink-wrapped box. It also allows the software manufacturer to release a ‘patch’ to repair the problems in the first release, or to release a second version of the product.

You cannot always adhere to the six-month rule – your client, your boss, or your sense of adventure may push you to purchase a product the day it is released. Just realize that the number of problems built into an application is inversely proportional to the amount of time the product has been on the market. This is inevitable, as thousands, or even millions, of computer users purchase and use the application, and contact the manufacturer with problems they found in the software. This enormous test base allows the manufacturer to refine and improve the code of even the most polished product.

**If all else fails...**

If you do purchase a product and find it has problems, you have several resources available before you have to return the software. I typically try each resource, in this order:

1. **The Web:** Most software manufacturers have web sites which include a technical support area – the technical support areas typically include patches, bug reports, troubleshooting guides and other information which may be helpful if you have problems with your new software. Best of all, web site support areas are free, and you do not have to listen to hold music while waiting for help.
2. **The Readme File:** Many applications come with readme.txt files – any technical communicator who has worked in software is familiar with these documents. They include information on any problems that the manufacturer found just before product release.
3. **Your Peers:** Never underestimate the value of your peers when you are having a software problem – even a novice can point out something you have missed.
4. **The Phone:** You may also reach the manufacturer by phone. All reputable software manufacturers maintain phone support. Many manufacturers now charge for support, but most do not charge for the first call.

One final point about bugs: There are no perfect products. Computer software is becoming increasingly complex, and as it does, the odds of finding a bug-free program are declining. Keep that in mind when you evaluate your learning curve for a product. More important, research the product before you buy it.

## **Education: Know Your Product before You Buy**

Once you know what you need, you must select a product that will fulfill those needs. Make sure you understand the capabilities and limitations of an application before you buy it. Too often, we purchase software based on what we heard around the office, and what the packaging says when we look at the box in the store. The result, typically, is a tool that provides a poor return on investment.

While research may take valuable time away from other tasks, it can save you a great deal more by revealing:

- **Bugs:** Whether the product is really ready for use.
- **Features:** Whether the product really does what you think.
- **Performance:** Whether the product really performs as advertised.

There are many ways to learn about a product:

### ***Magazines***

Computer magazines review the latest software, and they usually do so with a very critical eye. They will point up the major strengths and faults of a program, and let you know why you might, or might not, want to purchase it.

### ***The Internet***

The World Wide Web has a number of excellent web sites for software reviews. My personal favorite is TechWeb – which you can find at [www.techweb.com](http://www.techweb.com) – because it includes an index for all past product reviews.

News and online discussion groups may also offer some information. However, these discussions are fairly free form, and it may take some research to find out what you need.

### ***Your Peers***

Your peers are your best resource. They can provide you with a technical communicator's view of a software package. Even if they have never used the software, they may have come across information that you can use.

### ***Manufacturers***

Yes, they are biased. However, manufacturers typically publish software specifications for their product offerings. In addition, their salespeople are happy to discuss the capabilities of their products. Many manufacturers also offer free evaluation versions of their products – this is a near-ideal solution, as you can get a look at the product before you purchase it.

When you research a new program, remember that your research need not be exhaustive – you just need to come out of it with a clear picture of the product. If you can, then you should be able to determine whether the product meets your needs.

## **Avoid the Upgrade Spiral**

At this point, you are ready to purchase. But a new issue appears: The manufacturer is promising that WonderWorks 2 will be available in only 6 months. If you purchase now, you will have to pay more to upgrade later.

Don't panic. Go back and reevaluate the product you are about to purchase. Does it still meet the requirements set out in this paper? Then purchase the product – in 6 months you can evaluate the new release as a separate product.

## **Conclusions**

There are so many powerful software tools available for writers today that making appropriate choices can become a career. But technical communicators must remain focused on our real goal: To communicate with our readers. In this paper, I provided some guidelines for making the difficult choices: Which technology, how much, when. Technology increases our productivity in a competitive world, and eliminates some of the drudgery in our work, but we must avoid the upward spiral of software, hardware and training costs. The guidelines outlined in this paper, or some other disciplined approach, can help us do that. When you think about new software or hardware, keep three rules in mind:

- Know the product - Educate yourself about the software you are considering. Know its strengths and weaknesses relative to the work you perform.
- Know that you need the product - Make sure that a change is necessary.
- Know that this is the product you need - Try to ensure that you are purchasing the correct product.

I hope this discussion will help you balance what you need, what you can afford, and what you have time to learn. But the most important element of the evaluation process is positioning yourself to make an educated decision as to whether a tool will make you a better, more effective communicator.