HOW TO KEEP UP WITH YOUR LITERATURE

Reference Guide

This reference guide is designed to accompany the *Trauma Education: The Next Generation* video presentation by the same title. It provides key information, resources, and links that were discussed in the talk.

One of the most important things in nearly any profession is keeping up with the inexorable advance of knowledge. With the rapid pace of advance these days, anybody who fails to do this slowly falls behind. There are a number of ways in which this can be done. These include reading, listening to talks, thinking about information, and teaching. I will present a five-step technique for using either conventional or digital tools to keep up with the information in your field.

Step 1: Select your sources. There are three general types of sources that I recommend in your search for knowledge.

- *Journals, magazines, or articles that specifically apply exactly to your field.* As a trauma surgeon, The Journal of Trauma and a journal called Injury are examples. These sources are important because they contain core information about your discipline.
- *Sources that are related to, but do not exclusively contain information in your field.* A personal example is the Journal of the American College of Surgery. This journal contains a few trauma related articles in every issue, but these are buried in the majority of articles that pertain to other surgical disciplines. This type of journal is important because it allows you to see relationships between information in your field and a closely related discipline.
- *WTF sources.* You know what this means. What the ****? These sources are totally unrelated to your area of expertise. However, they are extremely important for stimulating you to think about cross linkages from another discipline and your own. I subscribe to technology, cooking, computing, and general news sources, to name a few.

Step 2: Perform a quick review. This means that you actually have to obtain access to your sources. These days, there are two ways to do this. The first is good, old-fashioned paper, and the second is via digital media. Although it may be comforting to hold physical journals, books, or magazines in your hands, this is becoming more and more difficult and expensive. *Most people are now opting for digital media, but to do this requires both hardware and software.* Here's a list of hardware options at this time, as well as my recommendation:

- *Desktop computer.* These devices are powerful and generally have a large screen for easy viewing.
- *Laptop computer.* These computers are similar to desktops, but are a bit more portable.
- *Tablets*. These computers offer a good blend of power, portability, and science. *This is my recommended hardware device.*

- *Smart phones.* These have similar capabilities to tablets, but the window size is much smaller. I personally find it annoying to try to consume large amounts of information through such a small window.

Recommendation: Tablet (any brand)

The hardware selected must also be accompanied by the appropriate software. Nearly all digital media have RSS feeds (Rich Site Summary) available. This is a standardized electronic description of the content that can be understood by newsreader software. Any website that sports this icon can be subscribed to using a newsreader. A variety of free newsreader software and applications are available. Here's a partial list:

- Feeddler app (from the iTunes store)
- Feedly (feedly.com). *This is currently my favorite.*
- Feedburner (feedburner.com)
- Feeddemon (feeddemon.com)
- Flipboard (flipboard.com). Can be used for other streams like Facebook and Twitter as well.

Any newsreader will do. Just pick one that you are comfortable with.

Once you have selected your hardware and software, and have added new feeds from sources among the three categories listed in Step 1, start reading! Many of the items will be abstracts of journal articles that you can skim through very quickly. At this point, you are only trying to identify interesting items that you will return to later. Look for ideas that are new, that clarify controversy, or that are just plain interesting to you. But be aware that only 15% of the items that you scan will be of any value. The other 85% is garbage.

Step 3: Bookmark high quality articles. Since you probably won't have time to do in-depth reading as you are skimming your newsfeeds, a good bookmarking system is crucial. If you are using paper sources, you can insert bookmarks, dog-ear pages, or do any number of physical things so that you can find the interesting articles again. Since most people will be using digital media, they will have to use a digital bookmark. A number of free software products are available, including:

- Instapaper (instapaper.com). *This is my current bookmarking app.*
- Pocket (getpocket.com)
- Evernote (evernote.com)

Most bookmarking apps make it incredibly easy to save an article. Many are actually integrated with the newsreaders mentioned above. Every time that you see an interesting article that you would like to come back to, flag it using your bookmark app. Taking into consideration the 85:15 rule mentioned above, you'll probably only bookmark a few articles from any given source.

Step 4: In-depth review. Now it's time to go back and spend some quality time with those quality articles that you bookmarked. I recommend setting aside a chunk of time at least once a week, if not more often, to accomplish this. Find a quiet area conducive to reading and thinking and then open up your list of bookmarks. The idea is to now read each interesting article completely. Not just the abstract. They are frequently misleading and may not match up with what is in the full text of the article. You may need access to a specialty library in order to get the full text of your articles. This can be done in person if you need paper media, but most frequently this is accomplished online. For every article that you read, consider the following:

- How good is the data?
- Was it analyzed properly?
- Do the numbers make sense?
- Are they clinically relevant?
- How does it fit in the big picture?

Important concept:

No single paper should ever cause you to change your practice!

Step 5: Apply! Any article that passes muster in Step 4 is ready to be internalized and applied. The only way that you will successfully learn from this information is to use it in your field of practice. Or better yet, teach it to others. That will cement the concepts in your own mind forever.