

Knowledge and Networks

By Keith Eric Grant, PhD, NCTMB

The brain is a network of nerve cells connected by axons, and cells themselves are networks of molecules connected by bio-chemical reactions. Societies, too, are networks of people linked by friendships, familial relationships and professional ties.

On a larger scale, food webs and ecosystems can be represented as networks of species. And networks pervade technology: the Internet, power grids and transportations systems are but a few examples.

Even the language we are using to convey these thoughts to you is a network, made up of words connected by syntactic relationships.³

As an unabashed academic and massage instructor, I've a tendency to look at how we organize and model our accumulated knowledge about the wider context of bodywork. The maps we create have significant effects on how we approach the acquisition and conveyance of knowledge, skills and abilities.

Massage, particularly when defined in an encompassing context of all touch practices, has many different subpractices (see my article, "Swimming Upstream Toward Effective Practice," in the March 2003 issue, www.massagetoday.com/archives/2003/03/13.html.) and many different theories of underlying action. When I periodically hear about someone advocating creation of "massage tiers," I have difficulty understanding how such tiers translate into measurable improvements in our ability to practice across the scope of what we might do. My worry is that such tiers have little to do with improvements, and everything to do with rites of initiation.

The criteria for evaluating the need for training and education, I believe, is that it is objectively needed to produce effective practice, including the technical, business and interpersonal facets. I also believe there is a tendency in our profession to want to use training as a gauntlet to promote commitment, the basis of which is noted by James Atherton in a short review of cognitive dissonance:¹ "Ordeal is therefore an effective - if

spurious - way of conferring value on an educational (or any other) experience. 'No pain, no gain,' as they say. The more difficult it is to get on a course, the more participants are likely to value it and view it favorably regardless of its real quality." Robert Cialdini makes similar observations in his treatment of social influence.⁴ Advocating training on such a basis is, I believe, a disservice both to the student and the ultimate consumers. Atherton is correct in noting the often spurious nature of the result.

For a long while, I thought the underlying problem with tiers was simply a factor of inadequate definition and too narrow motivation. Recently, I've realized that the problem is inherent in the broad scope of bodywork - tiers assume that knowledge is structured like a tree, with specialty branches spreading out above a single root. In contrast, massage knowledge forms much more of a web of interconnecting clusters, a shape that looks like a tree only when viewed very close at a single area of entry. In the more interior regions of such a web, the connections branch off to other clusters, eventually reaching other entry points and destroying the illusion of a single tree on which to base the concept of tiers.

Such webs occur throughout knowledge connections, social structures and the structures of life itself. Physicist Mark Newman has organized a gallery of web pictures showing their pervasive occurrence⁶ and written an extensive technical review article on research into the structure of networks.⁵ Barabasi and Bonabeau wrote a recent introductory review,³ and Barabasi has written an excellent lay-oriented book on this research.²

Moving ahead with this idea of networks, consider putting together an online encyclopedia, containing pages for all the pertinent sections of knowledge for everything in massage and bodywork. This shouldn't be too fine-grained: something on the order of the sections in the chapters of a book. Technique sections might have demonstration video clips attached. By looking at the hyperlinks between pages, we would better understand the interconnection between information in different clusters. Areas with a lot of mutual interconnection would be self-defining as a study area. If an area exists that's linked from everywhere, it would pretty much have to be a natural core area.

Things that come to mind are information on touch itself, as Ashley Montagu put it, "The human significance of the skin." Other areas that I see as likely core foundations would be business skills, particularly for those running their own practices, and interpersonal skills. Areas on Western anatomy and physiology would have great emphasis from orthopedic massage but much less direct access from sections on Asian bodywork or energy work.

In summary, our overall knowledge of massage is too diversely connected to be tree-shaped, having a single core and specialty branches. Everything is by some route interconnected, but the density of interconnections varies greatly and creates separate clusters of study. Such a structure captures the paradox of being too diverse to ever appear to have a single root, yet too interconnected to appear totally separate. Massage is thus a totality that thwarts our efforts to compactly define it while greatly rewarding our efforts to pursue its many links.

References

1. Atherton, JS. *Learning and Teaching: Cognitive Dissonance*. UK: 2003. Online.
www.dmu.ac.uk/~jamesa/learning/dissonance.htm.
2. Barabasi, Albert-Laszlo. *Linked - The New Science of Networks*. Perseus Publishing, 2002.
3. Barabasi, Albert-Laszl and E. Bonabeau. "Scale-Free Networks." *Scientific American*. 2003: 288;60-69. www.nd.edu/~networks/PDF/Scale-Free%20Sci%20Amer%20May03.pdf.
4. Cialdini, Robert B. *Influence - Science and Practice*, 4th ed. Allyn and Bacon, 2001.
5. Newman, MEJ. The structure and function of complex networks. *SIAM Review*. 2003: 45;167-256.
<http://aps.arxiv.org/abs/cond-mat/0303516/>.
6. Newman, MEJ. Gallery of Network Images, accessed July 2004.
www-personal.umich.edu/~7Emejn/networks/.

Editor's Note: Due to the transient nature of the Internet, some links may not be operational.

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