

## Finding the Centre

For the past 16 years I have spent the majority of my time with shoulders tensed and elbows raised in an unnatural position focused on a lighted panel 11 ¼ by 8 ½ inches. The output of this activity is a series of documents that are either 8 x 11 ½ or 11 ½ by 8 inches. A visitor from Mars would observe the activity in this way. I, of course, would talk grandly about the production of feasibility and operations studies, books, articles, speeches, budgets and promotional materials.

The Martian and I would both be right, but the Martian would have been a better prophet about the impending neck and shoulder pain that three weekly sessions of massage and Pilates are taking a great deal of time to remedy. I suspect I am not alone in my physical pain. But pain does focus the mind on the present and is a good way to make us ask the question, "What are we really doing"?

Mark Weiser and John Seely Brown of Xerox PARC ask the same question in a recent essay, *Center and Periphery, Balancing the Bias of Digital Technology*, published in *Blueprint to the Digital Economy*, edited by Don Tapscott, Alex Lowy and David Ticol of the Alliance for Converging technologies (McGraw Hill, 1998).

They begin by noting how information technology tends to make all information pop into the centre of focus without providing any context required to make sense of it. The screen we peer at so relentlessly makes everything of immediate importance. The forms of interface with their rows of icons across the top or the vertical rows of hotlinks to applications on the desktop is so ubiquitous that we can hardly imagine any other form of interface. The authors go on to identify several ways that the current interface design distorts and trivializes the reception and perception of information.

While my own experience pales by comparison with these experts, it has some striking similarities. In working with clients, I struggled with the centre/periphery issue constantly. In facility planning, how could we make it easier for clients to see that if we changed one aspect of design or operation, it would have profound impact on all other aspects? In conference planning, how could we help an organization see the folly of releasing their promotion to delegates before they had the faintest idea of what the event was actually going to cost? The conundrum eventually led me away from assignments to self-imposed research and development.

It has been a continuing journey. As a former educator, I revisited the area of learning styles which provided paths through both psychology and physiology. The latter had seen some significant development. Work done in the 1960's had led to significant research about the brain and how it actually worked. Some of the popularization of the left brain-right brain concept has resulted in fads that favour the right brain almost exclusively. One of its early proponents, Robert Ornstein, observes that he felt like the Godfather asking "How did things get so out of hand", Yet Ornstein's more recent distinction that "The left brain provides text – the right brain, context" resonates precisely with the views of Weiser and Seely Brown.

The answer for me to the question of how to combine text and context has been new interfaces and graphic organizers – software programs like Inspiration, Mind Manager, and VisiMap. These are parallels to what Weiser and Seely Brown call Hyperbolic browsers. The programs all have roots in processes like Mind Mapping, idea mapping, concept mapping, clustering. Originally these were pen and pencil instruments. Ideas radiate from a central focus by attaching boxes or graphic images containing brief amounts of text linked by arrows in the case of Inspiration; tree structures with descending levels of branches are enhanced by visual images in the case of Mind Manager and VisiMap.

Tony Buzan was one of the earliest writers to discover the benefits of such a notational style. The inventor of Mind Mapping stresses that this technique allows one to use both sides of the brain, capitalizing on its logical, sequential, and language ability and at the same time use the brain's capacity to visualize, imagine and see on the big picture. Simultaneously Gabriele Lusser Rico posited that clustering – quickly notating words enclosed in circles radiating from a central image, - would free the design capability of the mind and encourage vivid writing enhanced by metaphor and memory.

We're all familiar with the noun, hyperbole, an exaggeration not to be taken literally; hyperbolic hasn't even made it into my current print edition of the Oxford Shorter English Dictionary. But what Weiser and Seely Brown mean by this is depicting central ideas within the context of related information. Graphic interfaces address several though not all of the problems that the authors have identified.

The first problem is that our computers say predominantly in text, leaving out the context of innuendo, feeling, pause, tone of voice, suggestion. What ultimately is at risk is trust and authority. The new graphic software interfaces can address both of these issues in current versions and will do so even more satisfactorily in the future. All of them rely heavily on the visual, a characteristic of their roots in Mind Mapping, clustering and concept mapping, using colour, dimension, graphic images, and linking capability to bring the information to life.

Pictures immediately suggest context. If you read in your newspaper the headline, Kids Make Delicious Snacks, you're going to be uneasy if it is accompanied by a picture of an obscure tribe of cannibals. The new interfaces can also provide authority. VisiMap, for example, can provide a link to the actual source of the information, whether it is a document or an Internet site.

Other deficiencies of the text based approach noted by Weiser and Seely Brown include homogenizing, reframing and monosensing. Homogenizing reduces all kinds of information to the same format. E-Mail is an immediate example. All messages look the same. Everything has also been reframed into a landscape rather than a portrait format. The change in orientation has quickly become a standard that makes it seem authoritative. Similarly information comes at us almost entirely through the eye, though in the real world we are stimulated by all five senses. We know that only part of the population

learn best through seeing as opposed to the other senses.

Graphic organizers are useful at this stage of our development precisely because they jolt us out of our usual way of working. They encourage the use of the contextual – images and graphics, links to other sources, complexity of framework – that force us to work in a non-linear way. They are non-hierarchical, though they have the advantage of converting into hierarchical structures at the implementation stage when sequence is not just desirable but essential. They encourage free flow of ideas and spur us to keep going rather than accepting the first answer or solution.

Best of all they are dynamic. They can move information around even more satisfactorily than traditional brainstorming or post-it note exercises, because they are focused on relationships. Brainstorming notes too often become lists. Post-it notes usually become sequences. Working with graphic organizing tools allows one to become, what Dee Hock calls chaordic – dealing with chaos and order simultaneously.

Organizations are generally aware that their structures are overly dependent on hierarchy and have moved to flatten their layers of management and tear down the silos that separate functional units. What if they also decided to change the way they developed vision and strategy by adopting tools that are designed to promote that kind of thinking? The results might be astounding.

Some employees are covertly using graphic organizing tools and are new pioneers in exploring their capability. Most will admit, "I've always really thought this way, working in squiggles and doodles – but I never thought that it was acceptable". Knowing that they are not alone, moving into worlds where "net" and "web" are mainstays in the world of work, their championing of alternative ways of structuring and organizing information may place them in the vanguard of better ways to foster creativity and innovation.

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