MANIFESTO: the Emancipation of Information

by

Jess H. Brewer

Canadian Institute for Advanced Research and Dept. of Physics & Astronomy, Univ. of British Columbia Vancouver, B.C., Canada V6T 1Z1

August 4, 1998

The Internet's World Wide Web (WWW) has altered our world in ways we are only beginning to understand. In the realm of ideas, one thing that has changed forever is the concept of *authority*. By this I don't mean political authority (one person's ability to impose rules on others), although that is also eroded by free access to information, but rather "informational authority" (one person's ability to impose credulity on others). Today anyone with a Web site can present utter nonsense with such official-looking elegance that there is no way to judge the book from its cover, as it were. Everyone will soon learn, perhaps by painful experience, that you can't believe everything you read even if it looks like a page from the world's most prestigious scientific journal. The slogan, "*Trust no one!*" has always been excellent advice and will soon become indispensible to the Web-surfer.

At the same time, the traditional process of *learning* is being transformed by the Internet into something new. Information Technology (IT) and Computer-Aided Instruction (CAI) tools are now being developed by every University and College at a furious pace, in the expectation that "remote learning" will soon play a much bigger role in formal (and informal) education. No doubt many mistakes will be made in this mad rush to exploit unfamiliar new methods, resulting in some erosion of the effective and beneficial aspects of traditional education at the same time as its failings and weak points are addressed by IT/CAI methods.

Consider the relationship between *curiosity* and learning: one usually conceives an interest in a subject for unique, idiosyncratic and personal reasons, not because it is the topic of the day's lecture; driven by that interest, one will go to great lengths to satisfy one's curiosity, even if it means "going back to earlier chapters in the textbook" to acquire the necessary background knowledge. Nothing dampens curiosity faster than being told, "We'll cover that next term." And yet most nontrivial subjects are built in layers, with each conceptual level dependent upon the concepts and principles established in the preceding levels. My chosen subject, Physics, is perhaps the prime example of such a hierarchical structuring of concepts.

Fortunately, both the authority crisis and the learning crisis can benefit from a new type of information resource: the *interactive*, *holographic guidebook*. It works like this: when you get curious about some topic covered in the guidebook, you *look in the index first* and jump directly to the section where your topic of interest is discussed. If your curiosity is satisfied, great; if not, or *if there is a part you don't understand*, you follow the cross-reference links "back" (or, in some cases, "forward") to the section that claims to explain the necessary background concepts. If that is unsatisfactory, continue to follow the links until *all* your questions have been answered (or until your curiosity abates, whichever comes first). Most important of all is that you must *never take my word for it*. If you ever "dead end" on a section which fails to explain something *to your satisfaction*, send me an E-mail explaining what you feel is missing, and I will do my best to add whatever is needed to make it perfectly clear. This puts the burden of explanation where it belongs and should, in the long run, lead to a resource that will leave no one in the dark.

Remember, though: it is essential for the success of this project that you "Believe Me Not!"