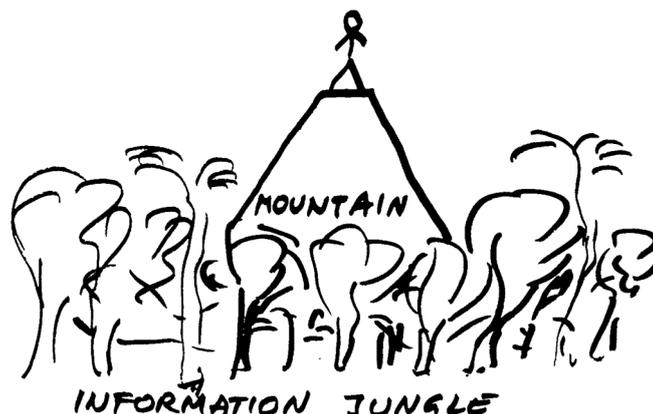# Knowledge = Mountain

In these five minutes I would like to express an insight, which I feel is vital for orienting the further development of topic maps, in terms of a simple formula:

KNOWLEDGE = MOUNTAIN

To understand this formula, imagine a jungle and a mountain rising over it. The jungle is our familiar Information Jungle. The mountain symbolizes whatever may help us overcome the jungleness of our information, by acquiring a simple insight or an overview. The formula is saying that we now need the sort of knowledge that is symbolized by the mountain.

The formula Knowledge = Mountain is pointing at a paradigm shift. To see why, recall the beginning of Marc Küster's opening keynote, where he quoted the French Encyclopedists. The Encyclopedia, with its vision to render all human knowledge in the form of a book, marked the beginning of Modernity. Since then we have witnessed unprecedented progress, but we have also developed problems, which require that we readjust our patterns of thinking and acting. We are now beginning Postmodernity, where we must aspire towards new kinds of knowledge.

I tend to see the message Knowledge = Mountain everywhere, expressed by different people in different ways. During my train ride from Berlin, for example, I was reading this Chapter 3 of Jack Park's XML Topic Maps, where Steven Newcomb writes under the title 'A Perspective on the Quest for Global Knowledge Interchange': "It is ironic that the recent huge improvement that information technology has brought to the accessibility of information—such as providing instant hyperlink traversal to any Web site, anywhere in the world—has itself made more and more information inaccessible due to the sheer quantity of it. The dream of global knowledge interchange recedes, even as it becomes real. Our power to filter out unwanted information must keep pace with the quantity of unwanted information. It's a race that we currently appear to be losing." That much about the Jungle. Then Steven turns to the Mountain: "Although it may sound strange, it is imperative that we develop technical, economic and business models that will allow businesses to make money by *hiding* information—by providing information that can be used to hide other information." Isn't this as excellent formulation of our formula?

Then in my hotel room in Leipzig I found this September issue of Cicero, where several leading thinkers were asked to comment about the prospects for the future. Ulrich Beck, the sociologist, answered 'The future is not what it used to be'. He said that we unleashed forces which we don't know how to control. Here is also James Lovelock, the environmentalist. I saw him Oslo last Monday, a day before I traveled to Germany, on a conference titled "Beyond Apocalypse". That

conference posed the question "Can scientists, businessmen, politicians and humanists save the world?" Lovelock answered that it's not about saving the world, our planet has been around before us and will continue to exist. The question is if we can save our civilization. Rephrased in the language of our formula, Beck and Lovelock are saying that there is a forest fire coming our way which we don't see. Confined to our own corner of the jungle, we pursue business as usual. The knowledge we have does not help us realize what we need to do.

On the next page in Cicero there is this large photo of Cardinal Karl Lehmann with the text "People require orientation". In the language of our metaphor, Cardinal Lehmann is saying that we, the people, require a way to come out of the jungle in order to see in what direction we need to proceed.

The formula Knowledge = Mountain is a sort of a theorem, which has two corollaries that interest us here. The first, "Knowledge ≠ Jungle", is pointing at a new, 'vertical' direction for the development of topic maps. If topic maps should become the medium for creation and organization of knowledge, we must not confine them to the jungle. The knowledge we need will not be found there. If we only use topic maps to interconnect the things in the jungle, the jungle will only become thicker.

The second corollary reads: "The killer app is a mountain-building kit". I propose this as an answer to the question posed by this conference, the one about scaling topic maps. Interestingly, this corollary combines the two meanings of 'scaling' that Lutz Meicher pointed at in his opening speech: scaling understood as the change of scale, for example from small and local to large and global, and scaling understood as surmounting and climbing. The corollary is saying that if the topic maps should scale to their full potential, if they should become the medium for global organization of knowledge, then they also need to scale in this second sense of the word. To facilitate the creation and integration of knowledge, we must give the communities of people who have knowledge the tools to create their mountains. We must also develop ways for joining mountains into even higher ones.

This brings us to Steve Pepper's question from the opening session, "Can topic maps change the world?" I believe that the answer is "Yes!" But this potential will not be realized if we only develop topic maps inside the jungle. The topic maps will not scale up to the jungle, unless we make them capable of scaling the mountain…