Crossroads
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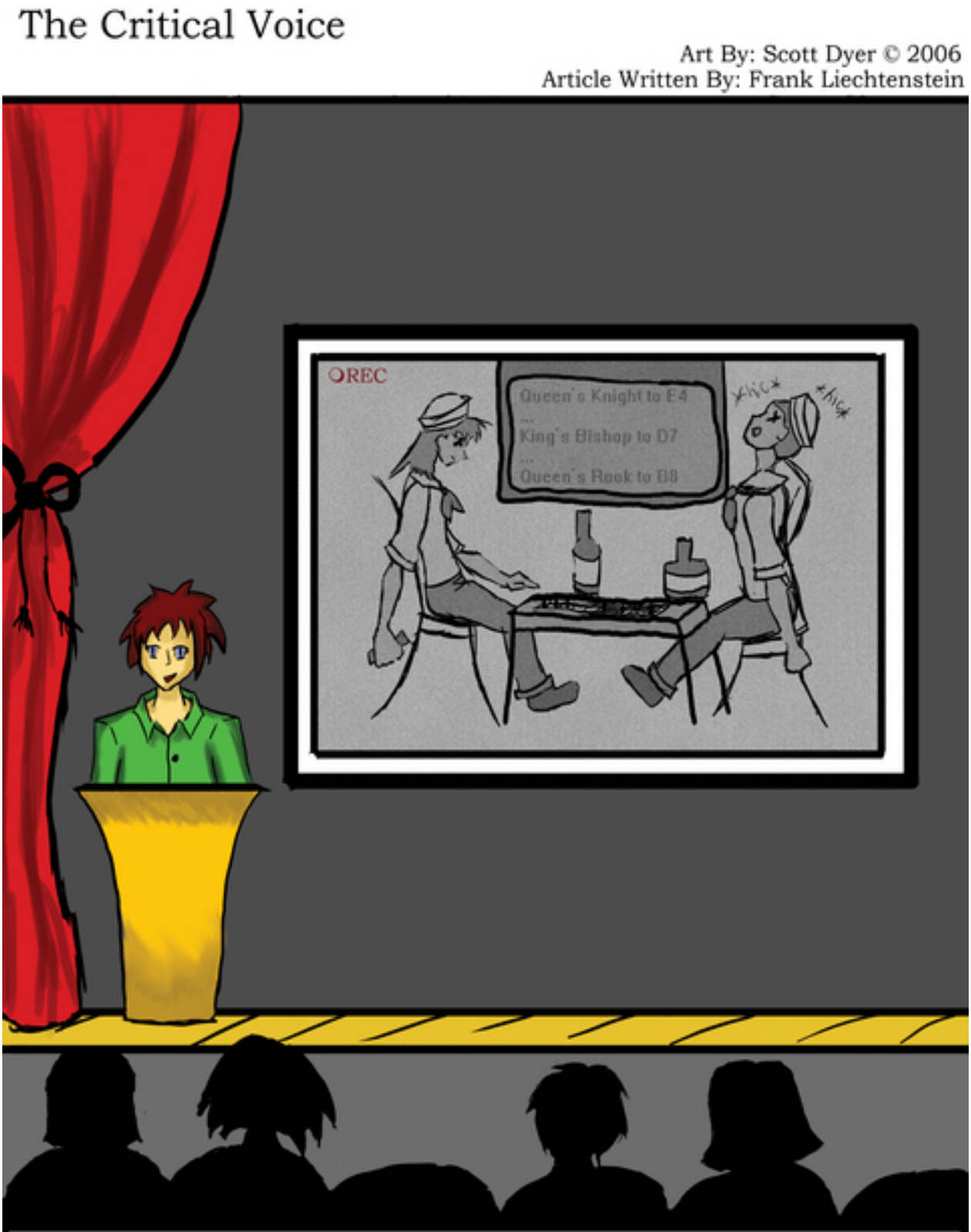
The Critical Voice

by ***Frank Liechtenstein***



The beliefs held by technology managers, sales representatives, journalists and Hollywood screenwriters are an inexhaustible source of wisdom and truth. The mission of *The Critical Voice* is to make this highly complex and difficult subject matter accessible to the average scientist on the street. Last time in *The Critical Voice* we proved that *P = NP* by

applying Moore's law to the science of computing that has resulted from the truly revolutionary impact of Java and XML.

This time we will turn our attention to AI, starting, of course, with the semantic web. To quickly summarize the recent advances in this field: Now that there is a specification for RDF, the semantic web has finally arrived to solve all knowledge engineering bottlenecks ever encountered. This finally makes it possible for a computer to play chess against a drunken sailor, which is known to be a deep AI-problem because it involves spoken swear word recognition, blurry pattern perception, and a great deal of nonlinear control.

This will certainly be a key success factor for the semantic web, as it enables experimental evaluation of the technology. I have already talked to my department, and they are willing to dedicate a room as a semantic web evaluation lab, as long as I manage to secure government funding to pay sailors for getting drunk there all day long and play chess with various computer programs.

Some people would probably say that drunken sailor chess is a somewhat academic endeavor, but these days one has to be imaginative about getting cost-effective experimental subjects. Our natural language processing group is the best example. All they could get out of their research grant was a monkey with a typewriter. I understand they have now found a way of simulating a monkey and want to test whether their artificial monkey can spit out a Shakespeare play more quickly than the real one. So far, all they get is Dan Brown novels, which is why animal rights activists now want to close down our department.

Sometimes I really have to ask myself why people keep reinventing square wheels: The AI community has done away with the idea of AMwT (Artificial Monkeys with Typewriters) decades ago, when it was proven that AMwTs cannot produce an XOR, because typewriters don't have the appropriate key. Later AMwC (Artificial Monkeys with Crayons) were thought to solve the problem, but the only prototype ever in existence was unfortunately found to be faked by a PhD student in a desperate attempt to extend his funding to a 12th year. At an AI-conference, it was discovered that it was in fact a real monkey sitting in a cardboard box with a cut-out window and a painted power button meant to simulate a computer screen. Researchers in Bioinformatics never found out, presumably because most of them had never seen a real computer screen before, and

are still stunned about the detail and accuracy of the simulation.

There clearly is one lesson to be learned from this: The future of artificial intelligence is in symbolic methods and the semantic web. Especially hybrid approaches combining the two should see much more research, because currently we have a semantic web that is not even of symbolic value and symbolic methods that lack any kind of semantics. At least, this is what I would have said in my speech, if they had given me the Turing award last year. I guess it's needless to say that they didn't. As a matter of fact our research group was forcibly evicted from the ceremony, which is probably too long a story to tell here. Suffice it to say that I shouldn't have brought along the drunken sailors I was interviewing at the time.

At this point I will conclude by making random philosophical sounding statements that will impress the funding agencies. In this article, we have brought forward evidence to suggest that the semantic web will be a key factor in bringing back peace and prosperity to our information-driven postindustrial society, and have therefore justified why the authors deserve to get their grant extended for another year.

Biography

Frank Liechtenstein received his M.Sc. of Applied Information Technology at the Andreas Hofer University Innsbruck, and a PhD in XML-Related Studies at the International Institute of Technology in Brussels, where he is currently employed as a postdoctoral research assistant.