

Educational Matters

Hans-Jörg Kreowski

May 1998

Dear reader, welcome to the Educational Matters Column. In this issue, you can find two short contributions of a quite different nature. First there is a text authored by Frieder Nake whom I introduced to you four months ago by the following note.

The *Prize for Excellent and Innovative Teaching*, donated by the association “Freunde der Universität Bremen”, has been awarded Frieder Nake (Professor for Computer Graphics and Interactive Systems). He is the first computer scientist at our department who got the prize, and he deserves it because he is not only dedicated to teaching for more than 30 years, but is also quite successful in fascinating students for scientific problems. The ceremony took place in the *Schütting*, one of Bremen’s most respectable buildings, that houses the Chamber of Commerce. Among the 200 participants, one could find many notabilities from economy, politics and science. The programme consisted of a long series of – partly boring – speeches with excellent musical interludes. Frieder’s words of thanks were the most impressing declaration of love to teaching and students. He addressed various aspects of education including an interesting and somewhat irritating idea: the eroticism of teaching.

Now you can read about this event in my honoured friend’s own words. I would be happy to get reactions to this quite personal view – may they be agreeing or antagonistic. Should teaching be a matter of reason only, or does it also provide space for emotions?

The second contribution is a report on the EC-funded *European School on Graph Transformation* that took place in the first week of March in Bremen. The weather was exceptionally bad, but the School provided great opportunities of learning for the participating students.

Contributions to this column are always welcome. Please send everything interesting for the discussion of educational matters in computer science to

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Loving Teaching

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Awards are great, and awards can be disconcerting. A university, granting an award for excellence and innovation in teaching, is probably trying to stimulate educators to double their efforts in lecturing and in preparing materials and processes of learning. Announcing the date for the nomination of award candidates may produce an impulse with all those hoping to be seriously considered.

On the other hand, there are institutions where the excellence in teaching award would be equal to the kiss of death. Most likely, teaching is not deemed a very important task there.

Some German universities recently discovered that a long period of emphasizing success in research projects as the only important criterion for evaluating the performance of their professors, had led to deteriorating conditions in teaching. A few began to install measures that should encourage professors to rethink their teaching efforts and, if possible, do something new and motivating. Teaching awards are one such attempt.

At the university of Bremen, the owner of a local company and leading representative of the Society of Friends of the University, Mr. Friedo Berninghausen and his family, donated an award that was given his name. The award has been granted to university teachers for more than five years now. It comes in two parts. One half goes to the humanities and social sciences, the other to engineering and natural sciences.

In 1997, I was surprised to see my humble attempts to become something like a decent teacher honoured when students proposed me as a candidate for the award. I was overwhelmed by joy when their proposal was accepted. At the award giving ceremony, I had the opportunity to address the crowd with a few words. Some of these follow in translation.

Yes, I would love to be an excellent teacher. And yet, it is hard enough to reach some middle ground at least. That would have been impossible, if I were not backed up by my assistants. As a habit, I meet them weekly for two or three hours to review the current situation in the course or lab we offer, and to prepare for next week. At times, some of the assistants may have wished me to hell for using up so much of their precious time. But how could anybody learn if there was no time? Learning is a slow process.

As you all know, a professor is someone who professes publicly. Wilhelm von Humboldt's idea of a university rests upon a professor who wholeheartedly subscribes to enlightenment, radical questioning, and research in learning. My maxim is to make at

least one profession during each of my lectures, and thus state in public what I believe is true. I don't always know in advance what that profession will be today. It depends, to some degree, on the flow of time between us who share that space for an hour or two with the intent to study.

I am using an oldfashioned medium when lecturing: chalk on blackboard. Occasionally, I take to overhead transparencies. But I do so only, when I want to show a picture that we all should see, and that would be hard or time-consuming to produce on the blackboard.

In computer graphics, my special subject area, you may try tremendous things with the aid of computers. With great calm, I have started to put certain algorithmic facts, and processes in particular, on the digital medium. It opens up a nice little chance. But that chance is *not* to learn faster or better. It is only to learn differently.

Multimedia teaching is not particularly important. It isn't particularly harmful either. It is rather insignificant. It is insignificant because *multimedia* teaching should not occupy our thinking; our thinking should rather be occupied by a quest for *good* teaching. Means are second to that.

Sometimes I have a feeling as if curiosity and a risk attitude were declining amongst students and professors at universities. I am probably prejudiced, or aging, or, most likely, both. But studying and teaching at the university should always be understood and done as a risky endeavor. Just to say, or be contend with, what the textbook says, is not risky. In fact, lecture hours should be reduced in favor of seminar and lab hours, and in order to turn lectures into real events. The contents of all lectures should be determined by the experience, the theory, and the current thinking of the professor, much less by the curriculum.

Students are more decisive for the success of university courses than teachers are. As professors, we set living examples. We create situations that are more or less advantageous for learning. We are prejudiced. We evaluate subjectively. This is good! Objectivity in teaching – what a horror!

Knowledge does not flow out of books. It doesn't come out of the internet either. There you find printer's ink and electromagnetic fields. Knowledge must be created by oneself. I am deep in sorrow over the McDonaldization of knowledge.

Teaching is close to erotics. I am in fever before a new semester starts, or when a lecture begins. Teaching and learning always originate in some difference, in a tension that is to be endured. Teaching owes to the yearning for the unknown, the other. I find it hard to understand why so many professors complain about their teaching load. I attempt to seduce my students: to thinking, questioning, to awe, to changing their own lives. Joy should come from this, not complaint.

The life of a professor, at least the way I lead it, is unbelievably rich. It is full of deep experience and insight into the self, full of unknown love and unknown suffering. It is marked by an extreme degree of selfdetermination and responsibility.

The other side of this love is that, what people often call their private lives, gets neglected. Yes, that is so.