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The Crisis Continues among Computer Science Faculty

David Gries's letter to the editor [ABACUS, Spring 1986] is perceptive and illuminating, especially on the problem of leadership in university departments. As Eric Weiss had pointed out [Editorial, Winter 1986], Computer Science certainly seems healthy enough in the quantity of students and demands of society. But Gries is concerned with quality rather than quantity. The demands of students and society have outstripped the resource allocation mechanisms of universities to the extent that quantity threatens quality in Computer Science research and teaching.

A mature and stable science might have a chance to handle such a surge in demand—postpone research and teach what is known. But Computer Science is neither mature nor stable—we hardly know the bedrock, let alone how to teach it. And, as Gries points out, unless well managed, an ordinarily welcome bonanza in quantity can swamp the quality of Computer Science research and education in the university. I think Gries's concern is real and it can help a new profession come of age.

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. . . and among the Students

. . . Or Is There Still a Crisis for the Students?

Before reading David Gries's letter to the editor [Spring 1986], I had stayed relatively neutral on the issue of whether the word "crisis" should be applied to the situation of academic computer science. Now I find myself agreeing with him that the matter is serious.

Gries says of the typical new CS chairman,

> He spends far too much time . . .
>
> • Trying to get more TAs, and grading papers because there aren't enough;
>
> • Acquiring more computing machinery, and then looking for money to support it; . . . .

Let me consider his second point first. Gries is writing from a department which has two VAX 11/780s, two PDP 11/60s (one labeled "spare 11/60"), some dozens of Xerox 8010 workstations, a few SUNs, and a pair of Symbolics Lisp Machines, and when I left Cornell (a year ago, after three years in the doctoral program), the department had plans to buy a species of Gould more powerful than any two of the above machines. These machines were not heavily used: the most prominent use of the 780s was reading network mail, the SUNs were generally used as terminals, and one of the leading uses of the 8010s was a game called Mazewars; all were for use by faculty and graduate students only. It is hard to sympathize with a struggle to acquire more of the same.

It is even harder to sympathize with a professor who is forced to grade papers because there aren't enough TAs. I believe this reluctance to partake in the more interactive aspects of teaching to be the norm at Cornell, and I fear it might be in other institutions as well; in this case I certainly agree with Gries that there is cause for alarm in the academic CS community. However, some good did come from having graduate students as graders. They tended to grade more carefully and leave more comments than faculty, who often failed to return papers or even exams.

On roughly the same topic, Gries says

> They [CS faculty] would rather spend more time on . . . teaching undergraduates, preferably in a situation that would allow them to talk one-on-one with a student once in a while. . . .

The evidence does not support this. One Cornell CS professor had a sign on his door "Have you seen the TAs?"; the understanding among the students—even graduate students—was that this meant to bother him with questions only as a last resort. Distance between faculty and graduate students was great enough that there were even joint meetings on the topic (attended almost exclusively by students).

The Cornell scene was not entirely bleak. First, there were two professors out of the twenty or so who seemed to care about teach-