Riot:

the Gateway

THURSDAY, MARCH 26, 1981

A popular entertainment given to the military by innocent bystanders.

Ambrose Bierce

Computing chairman quits in frustration

Mess leads to resignation

by Jim McElgunn

The chairman of computing science has resigned in frustration because of what he calls the "complacency" of university administrators in the face of exploding computing science course enrolments.

John Tartar says he resigned effective June 30 because his arguments that computing science desperately needs more academic staff have resulted in few improvements.

Registrations in computing science (including large numbers of non-computing science students) have jumped from 1,770 in 1973-74 to 3,888 in 1980-81, and are projected to rise to 4,590 in 1981-82.

But the number of full-time equivalent academic staff has only increased from 15.5 to 17.0 this year.

Research data gleaned from the U of A's official data book by computing science grad students shows that average lecture section size has grown from 28.1 in 1973-74 to 54.8 in 1980-81. It is expected to leap to 66.9 by this fall.

Demand for computing science graduates is at an all-time high: 12 jobs await every B.Sc. and 35 each M.Sc. and Ph.D., and demand is rising at about 30 percent annually. The American telephone giant, Bell Labs, says it *alone* needs as many computing science Ph.D.s as the United States produces yearly.

Dean of Science K.B. Newbound says the problem for computing science is that it is expanding during a period of funding cutbacks.

"The only real remedy would be more funding from the government," he says. "But the government in its infinite wisdom doesn't see fit to provide the resources."

Both Newbound and computing science chairman Tartar agree that adequately funding rapidly-expanding disciplines was easier in the 1960s and early 1970s. Provincial funding cutbacks have now made a gain for one department a loss for another.

The science faculty as a whole is not allowed to add to its total number of academics, because of a hiring freeze introduced in 1977-78.

Newbound's flexibility is clearly limited by the tenure system, which, for reasons of academic freedom and job security, makes it almost impossible to fire a tenured academic. And 98 percent of the science faculty have tenure, he says.

So he is relying on attrition to try to shift more academics into computing science. But he admits this is woefully inadequate to solve the problem.

The computing science graduate students and chairman Tartar agree that resources cannot be transferred suddenly from other departments into computing science.

Tartar agrees the problem is that tenured professors are not where the most popular courses are: "What are you supposed to do? Fire everybody? That's blowing with the winds, and institutions of high learning are not supposed to do that."

But "students have made a choice, and we should not ignore the students' decisions, not completely at any rate," says Tartar.

One solution may be to impose a quota, either on computing science majors or on students from other faculties and

departments taking computing courses. Engineering, commerce and science students would be most seriously affected by such a quota (see story below).

"I feel very strongly we have an obligation to students and *continued on page 13*

Non-computing students may lose

Exploding enrolments and a severe shortage of professors in computing science could have painful consequences for students outside the department.

Already, many computing courses have more than 100 students, and most have been forced to shift out of the General Services Building in search of larger classrooms.

And as the popularity of computing courses continues to leap ahead at 18 percent per year, students are being forced to wait as late as 4 a.m. to get computer time.

Already the department has been forced to slap enrolment limitations on some courses.

But the real crunch is yet to come.

Computing Science chairman John Tartar says a study by computing science departments across North America predicts that "within the next five years, it's not unreasonable to expect that half the university students will desire a course in computing."

Although Tartar believes "anybody coming to university should be aware of computing," the prospect of up to *10,000* students taking computing courses unnerves him.

"We're straining at the seams now," he says. "There isn't a hope of coping with 10,000 computing science registrants."

Even given support for hiring more academics from the dean and other administrators, Tartar admits the department will probably be forced by funding

constraints to make some hard choices. He says with adequate funds his department could probably attract two new academics every three years, but this would still not reverse the problem.

How enrolment might be limited is open to speculation, though Tartar thinks formal quotas are unlikely. He is very concerned about how fair enrolment limitations might be.

"How do we choose who gets in from other faculties?" asks Tartar. "We're being told in dollar terms to teach all the students we can and turn the rest away.... we have some extremely hard decisions to make as to if we have to cut programs to maintain others."

Science Dean K.B. Newbound speculates some computing courses may be shifted into other faculties where demand warrants.

How will the shortage of computing graduates and of people to train them affect growth prospects for the industry?

Tartar says the computing industry has already shown that "if universities won't do the job, industry will do it itself," by setting up its own accredited training institutes. Six of these are already operating or planned in the United States.

Meanwhile, back in the U of A computing science department, government cutbacks force larger classes and a fast-deteriorating quality of education.

Says Tartar: "We're not at the breakdown point... but the patient is getting sicker all the time."

photo Bill Inglee

Hear me!

Upper class twits unite: you have nothing to lose but your brandy and cigars! See review in Tuesday's Gateway.

Cabinet to blame for funding delay

The university won't find out until about April 15 what its government grant for the 1981-82 fiscal year will be, although that fiscal year begins April 1.

Vice-president finance Lorne Leitch is not happy with this situation; neither is Advanced Education Minister Jim Horsman.

The 1981-82 provincial budget won't go before the legislature before the second week of April, and Horsman cannot release proposed budget figures until they are tabled in the legislature.

Leitch pointed out yesterday that Alberta school boards get estimates of their grants well in advance of tabling in the legislature. However, government policy dictates that universities be kept in the dark.

This leaves the university in a bind.

"We have to make some kind of estimate for budget purposes," said Leitch. "We also have to negotiate with the academic and non-academic staff without knowing what the grant will be."

But Horsman said he is not personally responsible for the policy; the provincial cabinet made the decision.

"I realize the difficulty faced by the university," he said. "I'm sorry but that's just the way it is."

Historically, the Lougheed administration has been reluctant to release grant information any earlier than it has to, since university funding is a politically sensitive issue.

Last year, the amount of the grant was not released until just before classes ended at the universities. In 1978-79, no information was available until after classes ended.
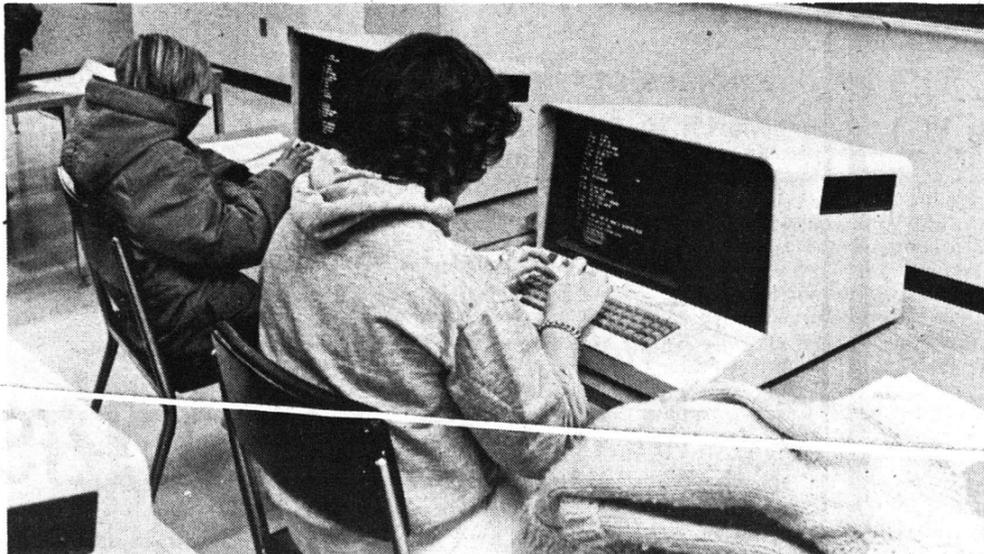

photo Bill Inglee

It may be maddening to line up for terminals now; in the future they may not even be able to get a place in the class.