

COLUMBIA SPECTATOR

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A future at risk

Amid much self-congratulation, Columbia's Commission on the Future of the University this summer released a blueprint for what will become of Columbia in the decades to come. Three years in the making, the massive commission report painstakingly addressed many of the toughest issues facing the University: the decline in federal funding, the decrease in the college-aged population, the housing shortage on Morningside Heights.

The commission was bold enough to make some very tough choices, but one of those choices—the proposal to merge the faculty of Columbia College into a University-wide Arts and Sciences faculty—harbinger a serious threat to both college and University.

Why the change? The four current Arts and Sciences faculties, the report says, are no longer differentiated by anything but "the age of their students and the level of instruction"; thus, the merger of faculties would simply make structure reflect reality. But the Columbia College faculty powerfully rebuffed that notion last week, voting overwhelmingly against unification. The interests and needs of the college, with its broadly based liberal arts curriculum, are worlds apart from those of Columbia's specialized graduate programs. The faculty was right. Undergrads need teachers who take a special interest in the college's curriculum and well-being—especially at a university where many undergrads already feel they're getting short-changed.

The differences between graduate and undergraduate education aren't just academic. They have a lot to do with an issue close to the heart of everyone at a university with limited resources—money. Columbia College's needs—the core curriculum, guaranteed on-campus housing, need-blind admissions—are expensive. Professors from the other three divisions might well view changes in the core and other college programs primarily in terms of dollars and cents—and of what the proposals would mean for their own constituencies.

Merged faculties have been a popular strategy at universities in past years. But the results haven't always been so well received. At Penn, the former president admits recruitment of professors there has become based primarily on research needs, not on expertise in undergraduate teaching. At Chicago, administrators rejected a similar merge in fear that a unified faculty would undermine the undergraduate core. And at Berkeley, undergraduate education has played second fiddle to the grad schools for years as trustees concentrate on luring distinguished, specialized researchers to the coast. Despite noble intentions, the results at these colleges have been the same: undergrads are left out in the cold. At Columbia, the number of graduate students teaching the core has already soared, and without a faculty devoted to undergraduate education, T.A. teaching threatens to become the rule, not the exception.

The commission's proposal comes at a time when the College's academic reputation is increasingly under fire. Columbia barely makes the top 20 in U.S. News and World Report's recent ranking of American colleges—the second-worst showing for an Ivy League institution. No matter how capricious the ranking standards are, this is grim news for the college. The quality of a university's undergraduate program has always influenced the public reputation of the entire institution. The proposal to subsume the undergraduate faculty symbolizes only one thing to that public: the growing unimportance of the college to the University as a whole. Without renewed commitment to undergraduate education, without the irreplaceable benefits of a separate faculty, the quality of a Columbia College education will inevitably suffer.

Last spring, Columbia College celebrated 200 years of providing a first-class undergraduate education. But that tradition is in danger. We have two choices. We can sit back and admire the aging ivy, or we can work to prevent the Commission on the Future of the University from undermining the future of Columbia College.

Letter War by wit

To the Editor:

The Philolexian Society questions the wisdom of Michael ...

Computer crazy

Crashing Wall Street, trashing SDI

By Simson L. Garfinkel

Even if computerized stock trading didn't cause the Oct. 19 stock market crash, automated trading systems—both the so-called "program trading" and "stop loss orders"—certainly helped make a bad situation worse. Last week's fiasco illustrates the danger of placing too much power and faith in computerized systems, and casts a shadow over the potential workability of the Reagan administration's computer-driven Strategic Defense Initiative.

In the past few years, program trading created a class of electronic middlemen that linked the New York and Chicago stock exchanges for some kinds of transactions. When stocks or futures were priced differently on the two exchanges, the programs instantaneously bought the cheaper and sold the more expensive, with little risk to the middleman.

By effectively increasing the pool of traders for the two exchanges and narrowing the marginal fluctuations required to spark buying and selling, this electronic linkage increased the volatility of both markets. When stock prices finally began to fall for extraneous reasons—such as high interest rates, balance-of-trade questions, and uncertainty in the Gulf—the sheer number of program-traded transactions clogged the exchange's computers and fueled the panic, reducing the number of buyers and depressing stock prices even further.

Equally important in the crash was the effect of simple "stop loss" orders and more sophisticated "portfolio insurance" programs, which instructed computers to automatically sell

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large blocks of stocks if their prices fell below pre-set limits. The market's 200-point decline during the days preceding the Oct. 19 plunge triggered some of these programs—they all triggered on Black Monday—and forced prices still lower.

The market is run to a large extent by thousands of computers, communicating with one another but operating independently, running millions of lines of software. Every conceivable event has been anticipated and programmed in. Much of the software has been well-tested and in operation for years. After all, these programs deal with money, and their authors had a vested interest in making sure they were as nearly perfect as possible.

And when judgment day came, the computers did exactly what they had been programmed to do. Unfortunately, the effect was not what anybody in the market had anticipated. The programs contributed substantially to the crash, even if they did not cause it outright.

Officials at the New York and Chicago exchanges acted quickly to limit the use of these systems. If we are very lucky, no lasting damage will have been done to the national or world economy. But we might not be so lucky if Star Wars is put to a similar test.

Much of the criticism of the Star Wars program has focused on the impossibility of writing, debugging, and testing the estimated 10 million lines of computer code necessary to run the system. As anybody who has ever written a computer program knows, things almost never work properly the first time

Correction

An Oct. 16 article about a Black Students Organization protest at a Columbia College Student Council meeting contained an error. The article incorrectly stated that Council Chair Jared Goldstein had spoken with Dean Robert Pollack about an allegedly racist comment made by Duane Bartsch. Goldstein and Pollack had no such conversation.

An article in the Oct. 23 issue describing council controversy over an investigation of the JBC stated that Goldstein threatened to walk out of the meeting. Goldstein threatened to walk out not over the idea of dissolving the investigating committee *per se*, as the article implied, but over the way some council members were addressing the issue.

Spectator regrets the errors.

We must, however, concur with a few of McBride's points. It is true that we are not a group of haughty reactionaries with a highly polished false dignity. We are a group of individuals who find wisdom not in preparing speeches and researching endlessly for our debates, but from speaking with wit and



Spectator/Mark Snylike

through. Many bugs, in fact, don't come out until a program has been up and running for some time.

But Star Wars proponents buck the computer industry's conventional wisdom. Given enough money and research, they say, it's perfectly possible to write flawless programs. Redundancy, artificial intelligence, and other sophisticated software engineering techniques will ensure that the system behaves as intended, even if some of the programs have bugs in them.

Monday's crash teaches us that under some conditions, flawless programs might still act in ways that are unanticipated and undesirable. A computer might do exactly what the programmers intended, but that's little comfort if they hadn't really thought out what they were doing when they designed and wrote the program.

With a strategic defense system—or worse, an automated system for attack and retaliation—we wouldn't get a second chance. We wouldn't be able to put a hold on further Soviet missile launches until we had a chance to fine-tune our programs. We wouldn't be able to undo the damage that incoming warheads had already visited on our country. We wouldn't be able to do anything at all.

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