How three grad students talked us into outer space

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:ion, which has energetically joined the Institute for Space and Terrestrial Science in wooing the space cadets.

Opponents of the Space University bid have asked whether Ontario should support a school which would be an elitist institute with $25,000 tuition. They have also listed numerous ties between ISU's funding sources and the US military-industrial complex. But another, more fundamental question should also be asked: what's the point behind a space university, and who came up with it?

Bob Richards had a lot to do with it. With his boyish features and mop of unkempt red hair, he doesn't fit the image of a university founder. At 33, he's the oldest of the three men who created ISU.

Richards talks about his spacefaring ventures with a relentless zeal. He describes himself proudly as a member of the "space generation" — a term he coined for those born after 1958, the year of Sputnik.

"I guess my interest in space dates back to when I first started walking," Richards says, adding a characteristically grandiose phrase: "The co-founders and I are working to and forward into a vast human endeavour in space." In 1981 Richards was studying engineering at Ryerson. At 22 years of age, the Toronto-born student already planned to devote his life to space.

One day he picked up a copy of *Omni*, the glossy science magazine published by *Penthouse* founder Bob Guccione. It contained a letter to the editor which would change his life.

"The steady deterioration of the US space program's goals and budget endangers our future and demands an organized response from our nation's campuses," it proclaimed.

The author was Peter Diamandis, an undergraduate at the Massachusetts Institute of Technology. The letter advertised a newly-formed "national student pro-space organization" called Students for the Exploration and Development of Space.

Richards contacted Diamandis and soon organized a Canadian branch of SEDS (which still has a chapter at York). Diamandis had already joined forces with the third founder, Todd Hawley, an undergrad at George Washington University.

Using SEDS as a springboard, the three young men went to work lobbying the US congress for more ambitious — and more expensive — space programs.

This was 1981, and the Reagan decade had just begun. The three starcrossed buddies may not have realized it, but their timing was perfect.

Not that outlandish space programs were a new idea for Americans. In the early 1960s President Kennedy declared space colonization the ultimate end to America's manifest destiny. In the decade that followed, the astronomically expensive Apollo program helped turn adolescent sci-fi fantasies into — well, into grown-up fantasies.

Americans got their wings singed in 1972, when the unpaid bills from the space program — along with the Vietnam war — helped create the first-ever US budget deficit. Putting people in space became politically risky: having men stick flags into the backside of the moon suddenly looked excessive in contrast to record inflation and unemployment back on earth. By the end of the 1970s the space program was virtually grounded.

Most Americans didn't mind seeing rockets carry communications satellites instead of humans. But on the fringes of US society, a group of people felt ripped off.

This group included, of course, the businesspeople who had profited from the lavish human space missions of the 1960s. But there was a second group: the space colonists. The colonists believe, for a variety of reasons, that the solution to Earth's problems is to move the human race onto other planets.

For some, the reasons are geopolitical: we're certain to blow ourselves up or pollute ourselves out soon, and we'd better have a retreat. For others, the motives are religious: Armageddon is coming and we'd better get off the earth if we want to be saved. Still others see the world as morally corrupt and want to build a new, pure human race on the planets. And many are imperial-minded Americans who want to see a 'new Columbus' carrying the stars and stripes across the void.

Of course, the businesspeople and the colonists were not isolated groups. Many rich and powerful Americans really believed that space-colony stuff. Many others realized they could profit from it.

Which is where the three young men come into the picture.

Had they met in 1971, their ideas may well have remained on the fringes. But this was the '80s, and the US government suddenly had few qualms about launching multibillion-dollar gigaprojects. In the age of Star Wars and Stealth bombers, space fantasies were fashionable again.

The three young men were making some surprisingly high-level contacts in government and business through SEDS and its offshoot, the Space Generation Foundation. And on April 12, 1987, in Diamandis' words, they decided to "cash in our chips."

That day they announced the creation of International Space University — an ambitious project intended, according to Richards, to "train the next generation of space pioneers." Based out of MIT, it would offer a summer program in a different country each year, offering a select group of graduate students an education in "Space Studies."

For ISU founder Peter Diamandis, space is utopia. In a recent *Excalibur* interview, Diamandis described his "frontier mentality:"

"It's the positive vision of what humanity can become when it's freed from what causes most of the wars in and around the world — which is conflicts over resources and conflicts over religious disputes because different groups are abutted to each other across a border — and when you're freed up to say 'okay, hey, you want to practice this religion and this type of social economy, great, you've got all the room you want to go do it. Have fun. See if it works'"

Taking a different spin on the colonization theme, co-founder Todd Hawley used his Spanish background to compare space colonists to conquistadors.

"I had grown up in Spain — a country which, in the late 1400s, decided to make the New World its cause. Space is the new world for me," he told *Technology Review* in 1988.

And as far as Bob Richards is concerned, space is our only solution. In 1981 he wrote a full-page article in the Ryerson *Eyeopener* entitled "It's all or nothing for humankind."

"We are in an epochal generation," Richards argued. Humans face the "global threat" of nuclear war. This threat "leads ultimately to the necessity of a global space program."

Today, Richards seems genuinely bewildered when critics tell him that ISU's funding sources include major arms contractors. He says there is no connection and calls the space university a "peace factory."

He says he is motivated, "as my co-founders are, [by] a vision of what space can be for the future of humanity. The ISU is one cog in the wheel of what is necessary to make what we see as a great future for humankind."

ISU isn't there simply to create technicians and engineers. It's there to create well-connected lobbyists who can pump their governments for space megaprojects

The Space University appears to have sprung from the three students' almost obsessive desire to launch humans into space. All three appear to believe that expensive space programs are not only desirable but necessary.

But is this merely the creed of the founders, the eccentricity that drew them together — or is it part of the university itself? After all, ISU is run by a 23-member board, only two of whom are the founders.

The letters of incorporation for ISU say its purpose is "to foster international higher education related to outer space" — nothing about expanding our dominion to the outer reaches. And most of the hype for ISU has been about its economic benefits, its alleged power to create high-tech jobs.

But it looks as if ISU's mission is just as political as it is technological. The summer sessions include, along with the expected science and engineering curriculum, courses in Space Policy and Law and in Space Humanities (which includes lectures "in topics such as space history, sociology, philosophy, art and literature").

At least one former student says an ISU education is more political than scientific. Damian Haule, a African-born student who attended ISU's 1991 summer session, says the program included workshops on the "politics of space projects," which he says were intended to "convince people in different countries that space programs are beneficial."

According to ISU's 1990 annual report, the growing number of graduates will form "a growing cadre of individuals who will lead their universities, industries and nations into space." What if those universities, industries and nations don't want to go into space?

If the purpose of the space university is, as its supporters claim, to "raise skill levels" and "increase technological capabilities," then why don't they just throw some money into existing applied science and engineering programs? Most supporters — including Ontario government officials — answer that the ISU is special, that it will train "space leaders." Which is true: ISU isn't there simply to create technicians and engineers. It's there to create well-connected lobbyists who can pump their governments for space megaprojects.

It's amazing enough that three graduate students, none older than 27, could found a university and get taken seriously by anyone. But it's absolutely stunning that without any business experience, they collected so much money, so fast, from so many important people.

And they did collect a lot of money.

According to US tax records obtained by *Excalibur*, they had collected more than $1.3 million in donations and grants by 1989 (they haven't filed for fiscal 1990 yet.). About half of this came from US sources. A quarter came from military contractors, a quarter from NASA.

How did they do it? Larry Clarke, the founder of Spar Aerospace (one of Canada's largest aerospace firms), describes it as "osmosis." Clarke was contacted by Richards in 1987. Now he sits on ISU's advisory board, and his company has promised $1.7 million in capital grants should York win the ISU bid. (Clarke also sits on the York Board of Governors).

But Clarke is a successful businessman with a reputation for business sense and diplomacy — not the sort of guy to get hung up with space cadets. Not unless it's in his best interest. And Clarke, like the rest of the high-ranking aerospace executives involved in ISU, feels it will be in his industry's best interest.

Is Clarke aware of the founders' vision? Yes. Does he know how little industrial experience they have? Yes. Does any of this bother him? He pauses.

"Certainly they are very astute in knowing they won't get off the ground unless they serve a clientele, an industrial clientele," he says.

Which is a very good way of putting it.

If the three young men had simply said, "We want to start a school for space cadets," it's unlikely many influential people would have touched it. But they chose their words much more carefully: they wanted to start a school to train *aerospace professionals* who would become *space leaders*.

This was guaranteed to strike the right chords with businesspeople, government agencies and universities. And it still made perfect sense to the space colonists.

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