



A Campus TRANSFORMATION

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Wouldn't it be fun to take a student from 1966 and flash-forward them to the UCalgary campus in 2016? Hold tight, daddy-o, as we do that very thing.



A freshman hops off a green-and-white electric trolley bus at the University of Calgary stop. It's a windy 1966 day and dust blows in from a nearby building site.

Eyes watering, the student — let's call her Maureen — hustles to return a stack of books to the library before her biology class starts in the Science B building. Campus teems with more than 4,000 students.

Maureen was up late the night before, cheering on the Dinos, and the tap of chalk on a blackboard helps her focus on the professor at the front of the class. She takes notes on her yellow foolscap pad and thinks of lunch.

In the cafeteria — too expensive for most students, who'd protested over the prices a year earlier — Maureen forks over a dime for coffee, tucks into the Velveeta cheese sandwich she packed from home and reads about Bermuda Shorts Day in *The Gauntlet*.

Tonight, she'll type up an essay on her dad's whizzy new Selectric and ponder her future. Maybe a degree from the new social work program? Physical Education? Either costs \$300 per session.

The Dinos, *The Gauntlet* and campus construction — some things never change, but, if our fictitious freshman were to time-travel to UCalgary for its 50th anniversary (that officially kicks off on April 29, 2016), she'd be gobsmacked at the transformation on campus.





The Earliest Days

Two decades before Maureen and her mod compatriots arrived on the scene, the university started humbly in 1946 as a branch of the University of Alberta, located on the Provincial Institute of Technology and Art (now SAIT) campus. In 1960, the University of Alberta, Calgary, moved to its present location in the northwest with two brand-new buildings, Arts and Science A. Nearby, McMahon Stadium opened.

Alan Arthur doesn't have to imagine what campus life was like in the early 1960s. He was there, an undergrad in history, stirring things up as *The Gauntlet's* editor by suggesting the university's teams should all be called "dinosaurs."

Now 74, Arthur (BA'62, UAC) describes the new campus on the city's edge as "a blasted plain, with two small buildings in the middle of the prairies. The wind was incredible." At the time, the nearby residential community of St. Andrews Heights was still under construction and, "whenever you opened your mouth outside, you got grit in your teeth," he says.

Getting there by bus could be an ordeal, says Arthur, so he often caught a ride with fellow student Maurice Yacowar (BA'62, UAC), now a professor emeritus in the Department of English. Sometimes, Yacowar's car, a 1952 Morris, couldn't make it up the 14th Street hill, so he'd drive up backwards in reverse. Arthur remembers poking his head through the sunroof, navigating by flashlight.

That same playfulness inspired Arthur to launch Bermuda Shorts Day on the last day of classes, April 1, 1960, by writing on a chalkboard: "Wear shorts tomorrow." The first BSD, now a legendary four-day event involving 10,000 students, featured a huge marbles tournament.

"Bermuda Shorts Day was very lighthearted," says Arthur, a born-and-raised Calgarian. "The weather was decent that day — no snowstorms — and it was a much more innocent celebration."

The student body was pretty conservative in the early '60s, says Arthur, *Gauntlet* editor from 1961 to 1962 (Yacowar was its founding editor). "Most of us weren't very political at all. There was a kind of an unthinking anti-communism because of the [1962 Cuban] missile crisis."

That changed rapidly and, by 1963, students began a drive for autonomy from the University of Alberta.

"Calgary was a dramatically smaller city in 1960s, but it was the biggest city in Canada without its own university," says Arthur, a history prof who took early retirement from Brock University in 2001 and now lives in South Carolina. "There was a sense of something new and that we needed to be independent."

In 1966, the Vietnam War was underway, John Lennon declared the Beatles were more popular than Jesus and the University of Calgary finally achieved full autonomy.



Be Gone, Wooden Card Catalogues

The library has always been the heart of UCalgary, and it represents one of the biggest transformations on campus in half a century. Students flocked to it in 1966, and they flock to it now.

If our pal, Maureen, wasn't above a little rabble-rousing, she might have joined the 1966 Stay and Study Sit-In. The Students' Union lobbied to have the Library Block open on Sundays and stay open until midnight on weeknights. When nothing happened, 700 students staged an after-hours sit-in. Library administrators served doughnuts and Coke to the protesters, who got their wishes a year later.

Dizzying changes began in the early 1970s, around the time MacKimmie Library opened. Over the decades, paper card catalogues were digitized. Computer terminals replaced wooden card catalogues, only to be shoved aside by laptops. Digital copying of printed books, documents, journals and images skyrocketed. Enter the World Wide Web and, *boom*, everything was accessible anytime, from anywhere.

Librarians figured the apocalypse was nigh, but that never happened, says Tom Hickerson, vice-provost (Libraries and Cultural Resources). In 1999, UCalgary launched an Information Commons on the second floor of MacKimmie, open 24 hours most days, bristling with computers and staffed by service-oriented, technologically savvy librarians. It was one of the first Canadian universities to embrace this new vision.

"By 2001, students came rushing back into libraries to get access to technology and broader hours," says Hickerson, adding that part of that stampede was due to noisy dorms and safety concerns that saw many buildings on campus closed in the evenings.

"And, because of the way the spaces were organized in the Information Commons, you could look across the room and see all your friends," Hickerson says. "We very quickly became a different place — an intellectual, technological and social space."

When Hickerson came to UCalgary from Cornell University nine years ago, the library was nearing the end of its lifespan. "The collection at MacKimmie was driving users out of the building," he says. Books piled up on aisles at end of stacks, the old carrels didn't allow students to work collaboratively and plug-ins were scarce.

The Taylor Family Digital Library, one of the most technology-rich educational facilities in North America, replaced MacKimmie in 2011. It has 260 kilometres of data cabling, rooms where students can video-record themselves and polish their presentation skills, a digital commons, a 3-D printer, more than 5,000 electrical outlets and much more. About 600,000 books are kept in the stacks, tracked and shelved using radio-frequency identification; the remaining 60 per cent of the entire collection — 2 to 3 million items, including things like drawings and manuscripts — is stored in a high-density storage library off campus. It's serviced by forklifts.



Some lamented the changes to the library, especially the off-campus storage. Not Jack MacIntosh, a philosophy professor who joined UCalgary in 1966 and continues to teach 50 years later. (Why? “You can’t not do philosophy,” he says. “Everyone does it: they ask what is right, what is wrong, what is true and what is false. The greatest thing is to do it professionally.”)

As a researcher, MacIntosh loves having access — right at his fingertips — to the electronic forms of first-edition books and manuscripts dating to the 16th century and up to now. “That’s a tremendous research tool. It makes life so much easier,” he says.

Increasingly, the library itself is becoming a lab for faculty and graduate researchers. Take the TFDL’s Visualization Studio, a state-of-the-art digital facility with a high-resolution display wall and surround sound. The display’s 34.5 million pixels gives researchers overviews they could not see with an ordinary desktop monitor or projector. Astronomers can analyze deep-space telescopic images. Biologists can examine sub-cellular details. One PhD student pored over a digitized Arthurian-era manuscript, discovered seven tiny hands drawn in the marginalia and wrote a paper about it.

The TFDL is “wildly successful” with students, says Hickerson. “We opened with 1,700 user seats and immediately added another 200 seats,” he says. “It’s right-sized in that it meets the needs of our users 95 per cent of the time. But, during study week and finals, people cannot find a place to sit.”



Ewan Nicholson

THE TAYLOR INSTITUTE IS DESIGNED TO PROVIDE A SPECTACULAR LANDMARK FOR TEACHING AND LEARNING, HIGHLIGHTED WITH THE ENERGY-EFFICIENT GLOW OF ITS SPINE.



Aside from the books and a single remaining wooden card catalogue devoted to works by playwrights, Maureen would scarcely recognize the place. She might find the open spaces designed for collaboration a bit alien.

Make Room For Working Together

Picture the self-contained classroom of Maureen's day: chairs, desks and tables are bolted in place; students face the teacher at front, passively receiving information, then work independently before handing in their individual papers (on paper).

Today, students mostly work in groups, using laptops, tablets or other mobile devices to take notes, draw or otherwise capture information and ideas that are then shared, says Jennifer Lock, associate professor and associate dean (Teaching & Learning) at the Werklund School of Education.

Ever-changing technology supports collaboration. For example, a group project can be worked on simultaneously in a Google document, without the need to gather in one space. Technology also is changing teaching.

"As instructors, we access information anytime, anywhere. We use video clips and we put information online for sharing," says Lock. "If an instructor is mapping out an idea on a whiteboard, it can be captured, saved, shared out and built upon. It's changing up how we work and it enhances student learning.

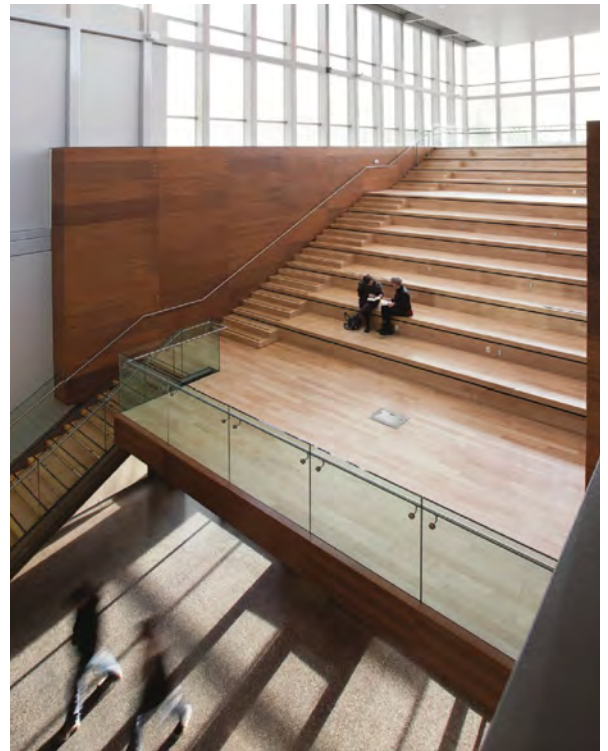
"The notion of learning goes beyond what students received during their time on campus."

Forget the typewritten or handwritten papers (on paper) of yesteryear. Students in MacIntosh's philosophy classes submit PDFs or *Word* files. "I type in my comments on the electronic submission right at the point where they're required, so the student learns and gets better," he says.

But even that is evolving as students have more creative opportunities to "represent their knowledge in different ways," says Lock. They can draw or perform a presentation or create a video. "When you see and listen to a video of someone giving a testimony, it's different from reading a text document. It's a richer experience."

The changes in teaching and learning cause "constant tension," says Sharon Friesen, vice-dean in the Werklund School of Education, because people working in teams need flexible spaces, not just for their bodies, but for their activities.

"University has not kept up with the changes from a physical-plant point of view," says Friesen, adding she'd like to see old classrooms "gutted."



Jager & Ko.

THE TAYLOR INSTITUTE PROVIDES CONTEMPORARY INFORMAL LEARNING SPACES FOR THE ENTIRE UNIVERSITY COMMUNITY, INCLUDING THIS AIRY ATRIUM.

She eagerly anticipates the April opening of the new Taylor Institute for Teaching and Learning, an airy two-storey space that has transformed the former home of the Nickle Arts Museum.

The Taylor Institute is meant to be an incubator for developing teaching and learning across disciplines and beyond campus. It is unique, says Lynn Taylor, vice-provost (Teaching and Learning). “There’s not another facility that we can find that was purpose-built and dedicated to improving the student learning experience and the teachers’ teaching experience,” she says.

Two huge banks of teaching space on the main floor can be divided into smaller spaces using partition walls that pull down from the ceiling. “Maybe you want your students to choreograph a dance,” says Taylor. “You push all of the furniture back, the tables all flip up, the chairs nest and, in about three minutes, you’d have a dance studio.”

Teaching stations can be positioned around the room: at the front, the side or the middle, depending on what the teacher wants. The furniture — tables, chairs, whiteboards — is flexible and can be configured in all sorts of ways and require only the lightest touch to move. Put it together; pull it apart.

Beyond storage, little is fixed in place. Despite the building’s “amazing IT backbone,” there are no AV apparatuses nailed to the walls or ugly cords snaking everywhere. They’re hidden in boxes in the floor, so that technologies can be moved around.

How does all of this flexibility help with student learning? Imagine a brief lecture, followed by small groups actively working together.

“There are times when the most learning-centred thing you can do is give students a really good short lecture on a concept that took people in your field decades to develop. You wouldn’t expect

students to figure out that on their own,” explains Taylor.

Now picture those students being able to quickly and easily move from the lecture into collaborative groups that can spread out, comfortably configure the space to their needs and seamlessly use the technology. Flexibility is key.

“Learning the concept is one thing, but, if you can figure out when and how it works and have the experience of applying it, then the concept is learned more deeply,” says Taylor.

If today’s classroom looks almost unrecognizable to a student of 1966, the near future would make even some of today’s students’ heads spin as technology will only accelerate the changes in teaching and learning.

More than ever, Friesen says, UCalgary must cater to an increasingly diverse student population, and access to online communication and learning is insatiable. Currently, her faculty has between 800 and 900 graduates working online. Twenty undergrads are working online and many more want to do so.

“At the same time, we need to serve rural and remote populations,” she says. “Many have the aptitude, but not the money or the physical means, and moving from rural to an urban setting is ferociously expensive.”

Friesen says higher education will increasingly become accessible online — so long as quality can be maintained. “People will still come to campus for a course or two. Social Work does that already. We do that,” she says. “But most faculties do not have online courses, so access isn’t yet sufficient.”

Lock takes it several steps further. She believes the campus of the near future won’t be bound by time, physical space or geography. “People who want to study with people of expertise will come together from around the world in a virtual online space,” she says. **U**