

## 10 UNDER 40

MEET SOME OF THE UNIVERSITY'S YOUNG MOVERS AND SHAKERS.



PHOTOS BY ANDREW GILLMAN

Academia doesn't have the reputation of being particularly fast paced. Doctoral studies, research grants, tenure review—all are recorded in years, not months or weeks. So when word gets out about young faculty and staff members who, though relatively new to campus, are already making significant contributions to the U, we like to take notice.

To find out who's garnering attention, Continuum sent out a call to vice presidents and deans, asking for nominations of outstanding young innovators in their respective areas or disciplines. Then we took on the impossible task of narrowing that accomplished group to just 10.

In doing so, we make no claim that these are the only 10 outstanding people under 40 on campus, nor that the list of nominees could ever be exhaustive. But we did find that these 10 individuals stood out from the crowd for their compelling research, their superb teaching, their energetic outreach efforts, their commitment to making a difference at the U.

They represent many aspects of the University, giving us an appreciation of how many different ways an institution must be viewed before the whole picture comes into focus. They share several traits, including enthusiasm for what they do, an ability to understand both the overarching questions and the minutiae in their work, a belief in collaboration, and a genuine sense of wonder and curiosity. The U is a better place because of them.

And while we found that all of them were excited to talk about their work (included here in excerpts from their interviews with Continuum), they were less interested in talking about their impressive credentials—their degrees, publications, and awards. Rather, they approach their

work with simplicity and humility, and perhaps it is from there that the creative thinking springs.

Oh, and one more thing: we didn't ask them if they were really under 40. It just didn't seem polite.



**Julio Bermudez**  
Assistant  
Professor  
of Architecture

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My work is in information architecture, dealing with the interactions between space, representation, and data. Jim Agutter BS'96, who is my former grad student, works very closely with me, and we have many collaborators in each of the areas I work on—finance, arts, computer science, psychology, and medicine.

This is a new practice in architecture. Rather than bricks and mortar, we work with information. It's atoms versus bytes. The basic question is how information occupies space, rather than how a building occupies space.

By the year 2020, the amount of knowledge being produced by our civilization will double every month. How can you process that? If we had new ways of representing the information, we might be able to make sense of it. It's like going to the rain forest for the first time—it's too vast to comprehend. But after you've been there, you can start to see patterns and ways of organizing them.

So I look at how information is presented—from a stock analysis page to a cockpit panel to displays at a nuclear power plant. In medicine, we assign variables to a 3-D object. Each represents a critical function, like blood pressure. There are interesting applications for anesthesia, where you need a lot of critical information presented instantly, because of the high risk involved.

Right now, my favorite example of "architecturizing" information is in dance, since that was where I got my original idea—to measure what was happening internally to a dancer while she was dancing, and to express spatially those measurements on-stage via computer as part of the performance. The art keeps me focused on what I care about. With art, you can play more. There's an exactitude about science, a need to produce results, and while there is great rigor to art, the process can be as important as a specific result.

My husband and I love it here. Even though we are from Canada, it felt like we were coming home when we moved here.

The primary question I focus on in my research is: How does the information that companies provide to the stock market

