IN THE LOOP

A publication for College of Computing and Digital Media alumni

A Chicago Public Schools teacher programs a Lego Mindstorms robot as part of a “Taste of Computing” workshop at CDM. Read about CDM’s partnerships with local high school students and teachers on page 4.
DEAN DAVID MILLER is celebrating 35 years at DePaul this year, and it’s no coincidence that the Department of Computer Science is also marking its 35th anniversary. When the department was formed in 1981, Miller, a newly minted PhD from the University of Chicago, was its first outside hire. Thus, he has witnessed the transformation and growth of a fledgling computer science program into the robust interdisciplinary college that CDM is today.

Naturally, things have changed since Dean Miller’s early days at DePaul. Today’s students tweet, Snapchat and Facebook on smartphones. They take online courses and use advanced programs to create new worlds in digital film, computer gaming and animation. They practice cyber defense exercises, study legal issues in information assurance and conduct studies on human-computer interaction. Technology shapes their lives, and they all have digital footprints. But they share the passion for learning and drive to succeed that motivated those first students in the Department of Computer Science.

DEAN DAVID MILLER

THROUGH THE YEARS

1981

Part of the College of Liberal Arts and Social Sciences

CDM

CDM comprises the School of Computing, the School of Cinematic Arts and the School of Design

2016

FACULTY

8

Full-time faculty (2016-17)

115

DEGREE PROGRAMS OFFERED

2

37 (see back page)

SPACE

A few rooms on the fourth floor of the CDM Center

CDM Center (new floors): the second, sixth, eleventh and basement floors of the Richard M. and Maggie C. Daley Building; the concourse of the DePaul Center; a soundstage at Cinespace Chicago; labs and classrooms on the Lincoln Park Campus

Approximately 630 computer science students in the mathematics department in January 1981, six months before the department launched.

As of Sept. 7, 2016, a total of 1,184 students are enrolled in CDM for fall quarter 2016.

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NUMBER OF ONLINE COURSES AND SECTIONS

596 (2015-16)

NEWS

IBM introduces its first personal computer, the IBM Model 5150

TECH IN THE NEWS

Facebook’s Oculus Rift, Apple’s iPhone 7, Amazon’s delivery drone, Microsoft’s HoloLens

SOCIAL MEDIA

Popular social media apps: Snapchat, Facebook, Instagram, Twitter, Kik, Pinterest, Vine, Tumblr

CLOUD

Internet-based computing and data storage

MULTICAST, PLACE, SET, UNDELETE

NEW TECH WORDS/PHRASES IN THE OXFORD ENGLISH DICTIONARY

Redditors, deepfakes, blockchain (2015)

THE NEW ABCs

Pinkard is the founder of the Digital Youth Network, which supports organizations, educators and researchers in their efforts to develop effective digital media programs for youth. Earlier this year, Pinkard discussed digital media and literacy with Steve Kraske, host of “Up to Date,” on KCUR 89.3 in Kansas City. Following are excerpts from that conversation.

ON LITERACY

What it means to be literate has always changed, and it’s always been connected to the technology of our time. Before the printing press, literacy meant the ability to be able to orally recite. The printing press meant it was cheap to send books, so everyone learned to read. With the creation of the Internet, mobile and WiFi, it’s easy to send videos, songs and sounds to each other almost as quickly as we can send texts. So in that sense, what it means to be literate is that you have to be able to create and consume those types of digital artifacts.

ON DIGITAL MEDIA

We focus on digital media and how students understand how to consume everything that they take in, but then also how to create it. How can they learn to represent their ideas and thoughts by creating all these different digital artifacts: a video, a game, a song, a visual representation, an app. At the same time, you can’t be digitally literate unless you’re traditionally literate. You have to know how to write. For example, to create a movie, you have to write a script, and if you don’t understand story structure, you’re not going to make a good movie. To write a song, you have to write the lyrics.

ON THE DIGITAL DIVIDE

There is still a digital divide, but it’s less about the technology and more about opportunities to participate. Many kids work with have mobile devices, a PlayStation or a Gamebox that’s connected to the internet or a computer. So they have some technological access, but they don’t necessarily have access to programs and training that develop digital media skills. That’s where programs like YOUmedia come in. (Pinkard was instrumental in the creation of YOUmedia, a technology-equipped teen learning space at the Chicago Public Library.)

ON EDUCATION

At YOUmedia, we’re trying to help kids understand that what they do out of school has relevance to what they do in school. Then we work with schools and teachers to bring it all together. A lot of it is about how you integrate the instruction. So you have your writing teacher working with your media arts teacher. Students might want to work on story structure and content in an English or social studies class, and then they bring that with them to the digital media classes or YOUmedia. Our job is to make the possible visible and empower students to get there. That’s why showcases are so important; they’re opportunities for students to see what other students are creating.

ON THE DIGITAL FRONTIER

Think about how much media you consume on a daily basis across all your different devices. If we’re not making the ability to consume and produce that media into a core literacy, for everyone, then we’re handicapping our kids and we’re handicapping our society.
The ‘L’ whizzing by, the horns of passing cabs, the clatter of high heels on the sidewalk—from the moment you exit the front door of the CDM Center, it’s clear that DePaul is a university with an urban heart. Being in and of Chicago makes it possible for CDM faculty to forge fruitful partnerships with individuals and organizations throughout the city, including high school students and teachers.

**Computer Scientists of the Future**

Thirty states, including Illinois, currently allow high school students to count computer science courses toward graduation credits. But Chicago Public Schools (CPS) recently took this one step further. Starting with this year’s freshman class, the successful completion of a computer science course will be required for graduation. Lucia Dettori, associate dean and associate professor, knows better than most that this new stipulation was no small feat. As a member of the Chicago Computer Science Teachers Association, she collaborated with CPS teachers and faculty from area universities to bring computer science courses to high school students. Dettori says. “One reason for our success is because we were able to build a community of stakeholders that spans teachers, administrators and universities.”

In 2011, the team’s proposal, “Taste of Computing,” received a four-year NSF grant of $1,050,000 to support Chicago’s implementation of the Exploring Computer Science (ECS) curriculum, a successful program out of the Los Angeles Unified School District that includes a comprehensive professional development component for teachers. The grant coincided with CPS efforts to revamp its career and technical education information technology program (CTE-InfoTech), providing the perfect opportunity to introduce ECS to high school students. Meanwhile, teachers from a range of subject areas—English, math, library science—enrolled in the professional development workshops hosted at CDM. So far, more than 175 CPS teachers have taken the workshops. Of those participants, nearly half are women, and approximately 50 percent are Latino or African American. These statistics are heartening for an industry still struggling with gender and race inequities. “The fact that society is diverse by definition, and what this field is creating is so pervasive in society, means we need diverse voices at every phase of design and implementation,” Dettori says. Making ECS the foundation of the curriculum, a successful program out of the Los Angeles Unified School District that includes a comprehensive professional development component for teachers. The grant coincided with CPS efforts to revamp its career and technical education information technology program (CTE-InfoTech), providing the perfect opportunity to introduce ECS to high school students. Meanwhile, teachers from a range of subject areas—English, math, library science—enrolled in the professional development workshops hosted at CDM. So far, more than 175 CPS teachers have taken the workshops. Of those participants, nearly half are women, and approximately 50 percent are Latino or African American. These statistics are heartening for an industry still struggling with gender and race inequities. “The fact that society is diverse by definition, and what this field is creating is so pervasive in society, means we need diverse voices at every phase of design and implementation,” Dettori says. Making ECS the foundation of the CTE-InfoTech program brought computer science to students who might not otherwise have been exposed to the subject. Indeed, more than 80 percent of the students taking ECS are Latino or African American, and more than 40 percent are women.

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**Making Meaning**

This past summer, CDM offered two inaugural, six-week programs through the Chicago Housing Authority (CHA) Summer Youth Opportunities network. All of the students reside in CHA public housing or came from families that receive supplemental rent assistance through CHA housing choice vouchers.

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The students focused on such timely topics as bullying, teen pregnancy and local violence. Through the lens of the camera, they acquired not only valuable technical skills, but also a greater understanding of the power of media. “We believe that women, in particular, play a pivotal role in creating change,” notes Calfee. “As a film school, one of our goals is to encourage diversity in filmmakers and help chip away at the large gender gap in the industry.”

Both summer camps incorporated guest lectures from experts, field trips to relevant industry sites, team-building exercises, project showcases and graduation ceremonies. Additionally, CDM students and faculty provided mentoring and guidance throughout the programs.

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“Research is formalized curiosity. It is poking and prying with a purpose.” –Zora Neale Hurston

Forty-six students in DePaul’s Honors Program acquired an intimate understanding of author Hurston’s sentiments while producing thesis projects during the 2015-16 academic year. We asked three of the CDM students to share their research with In The Loop.

Zac Gross (CDM ’16)
Computer Game Development
“Epic Videogame”

“My thesis project was to create a videogame that used the ideas of Brechtian Epic Theater. Epic Theater rejects traditional design principles in order to distance the audience from the piece, let them think critically about the subject and drive them to social action. Bertolt Brecht used his plays to critique religious indoctrination of children.

“Specifically, Epic Theater rejects catharsis (the empathy of the audience with the characters), organic unity (the wholeness and homogeneity of a work) and tectonic structure (the narrative structures and conventions that we expect). My game uses unconventional techniques, such as exposing the collision and content systems to the player, outlining the structure of the game at the start screen, including an interrogation and ending abruptly, to emulate the techniques that Brecht used in his plays.”

Thesis director: Assistant Professor Brian Schrank
Faculty reader: Assistant Professor Anna Souchak
Postgraduation: Associate software engineer, NetherRealm Studios

Marissa Pauly (CDM ’16)
Information Systems
“Women in Computing: Exploring the Gender Gap”

“Instead of doing a traditional written thesis, I created a website that explores issues and solutions surrounding the gender gap in computer science. My goal was to increase awareness, identify action steps and provide a resource on women’s contributions to computer science, which are often forgotten or misrepresented. I researched design principles, computer science, the gender gap and potential solutions; wrote posts based on the research I conducted; and designed and developed a website using WordPress.

“The site’s intended audience is parents, educators and students in middle school and high school who are beginning to think about their future career paths. Exposure to computer science in middle school and high school can have a big impact on students’ decisions and perceptions about the field.” Visit explorefromcomputerscience.com to learn more.

Thesis director: Assistant Professor Denise Nacu
Faculty reader: Associate Professor Roshanna Sylvester
Postgraduation: Technology analyst, JPMorgan Chase & Co.

Nina Cammarata (CDM ’16)
Animation
“Creating Effective Horror in Project Brimstone”

“In this project, I researched what makes an effective horror game. This included analyzing topics such as the causes of fear, suspense and anticipation, artificial intelligence behavior, flow of information, color theory and more. All of these are contributing factors to an effective horror game, but I wanted to see which combinations produce the scariest experience.

“Most of these topics boil down to giving the player presence through clarity of the universe, situation and mechanics, with an emphasis on theme and ideas. Ultimately, my research showed that horror games are highly dependent on all aspects of the game being just right. Everything in a good horror game needs to contribute to what the developer is trying to achieve in terms of theme. When everything is set up in the right quantities at the right time, a significant emotional response is achieved.”

Thesis director: Professional Lecturer Allen Turner
Faculty reader: Instructor Heinz Schuller
Postgraduation: Associate artist, NetherRealm Studios

What was it like to work one-on-one with Kiarostami?

It was a bit surreal being in Cuba, studying under a filmmaker who’s had a huge creative influence on me. He shared his own philosophy and approach to filmmaking, but, as he stated on our first day, he wasn’t there to teach us about filmmaking; rather, he was there to help us realize our own approaches. In the first four days, we explored our environment and developed story concepts while receiving constant feedback from Kiarostami. It was a close-knit, collaborative space where he was available from breakfast until late into the evening. Once we started shooting, we would often knock on someone’s door and telling them to meet you at 2 p.m. the next day by the tree, and then you hope they will show up! It was strange and difficult but also exhilarating to get off the grid because technology there is so scarce. You’re knocking on people’s doors and telling them to meet you at 2 p.m. the next day by the tree, and then you hope they will show up! It was strange and difficult but also exhilarating to get off the grid and focus on what matters most in storytelling and filmmaking: character and story.

What did the workshop entail?

The 10-day workshop was held at Escuela Internacional de Cine y Televisión, an hour and a half outside of Havana in the small town of San Antonio de los Baños. The school was started by the acclaimed novelist Gabriel García Márquez, and its classrooms have attracted many of the greatest filmmakers around the world, which made it a fitting venue for this workshop. Kiarostami held formal masterclass lectures for the group and the entire school. Then our group went through the process of developing, writing and producing a short film under his tutelage. My six-minute short, “An Artist Life,” focuses on a young painter who works as a barber and welder to support his art in San Antonio de Los Baños.

Did this experience change your approach to teaching?

It did. Unfortunately, in the U.S., we are almost forced to approach cinema as a “business” first. We tend to forget that in most parts of the world, cinema is still primarily an art form—in many ways, the most powerful of all art forms. It’s imperative that we encourage one another to create freely and that we widen the diversity of voices beyond those we typically hear within the strict boundaries enacted by the business of film. This is something I hope to instill in my students. In Cuba, we didn’t have tons of equipment, but we were able to create powerful art by getting to the bare essence of storytelling and by fearlessly approaching the process as a way of learning by doing.

You have filmed in Chicago, Los Angeles and Shanghai. How did filming in Cuba compare?

The biggest difference is that Cubans have such limited resources. They’re isolated and on their own in many ways. People were not readily accessible via the internet or cellphones because technology there is so scarce. You’re knocking on someone’s door and telling them to meet you at 2 p.m. the next day by the tree, and then you hope they will show up! It was strange and difficult but also exhilarating to get off the grid and focus on what matters most in storytelling and filmmaking: character and story.

This piece was adapted and edited from an interview conducted by Kasia Kujawski (CMN ’16) and Elizabeth Clements.
Andrew Ruginis (CDM MS ’06) wears many hats as director of technology at the Portland Art Museum in Portland, Ore. There’s the vendor management hat, the technical lead hat, the collaboration enhancer hat, the policy writer and enhancer hat, and the reducer of inefficiencies hat. “I have to know a little bit about a lot of different aspects of technology,” he explains. “But my role is also about building relationships with colleagues across departments and empowering them to do their jobs better by using technical tools or eliminating technological barriers.” To accomplish his job to the best of his ability, Ruginis follows advice from a former colleague: Get out of your office and stroll the floor. Being visible and available helps him understand the technological challenges his co-workers face and provides insight into how the museum could be managing technical tools differently. Since starting at the museum in 2015, Ruginis has focused on eliminating redundancies, such as two departments paying separately for the same service or software. “I focus on streamlining and optimizing, taking a scalpel approach to managing technology and equipment,” he notes. In other words, he doesn’t follow a one-size-fits-all philosophy. Rather than order the same computer for all 160 staff members, Ruginis considers the user’s needs: Is the user a full-time or part-time employee? What kind of software does he or she need? How often is the user online? This strategic focus benefits employees and the museum in equal measure. Ruginis especially enjoys guiding colleagues to new and better methods of working with technology. “Sometimes, employees have tolerated a way of doing something for months or years, and it’s so frustrating to them,” Ruginis says. “When I can see that and suggest an alternative, it’s incredibly fulfilling.” He’s also inspired by the larger community of cultural institution professionals. Before joining the Portland Art Museum, Ruginis worked in the technology departments of Chicago’s Field Museum and the Chicago Architecture Foundation. Unlike other industries that guard technological secrets, the museum world is highly collaborative. If Ruginis is thinking about switching to a new vendor for a particular service, he’ll often reach out to his colleagues around the world. “I didn’t know about this aspect when I got into this business, but it’s one thing that kept me coming back. For graduate school, Ruginis sought a university where he could study computer game development, competing for Team Canada in the shot put at the Olympic Games in Rio de Janeiro last summer. After winning the shot put at the Canadian Olympic Trials with a throw of 20.28 meters, Nedorow went on to finish 16th out of 34 competitors at the Olympics.

On Specializing … Or Not
When you’re picking a specialization in school, don’t worry too much about your future prospects. I think sometimes people get caught up in worrying that they need to pick the “hot” specialization—whatever is big at that moment. But you probably won’t focus in that area for the rest of your life, so the important thing is that you’re able to adapt. Be mentally prepared to pivot, redevelop yourself and evolve into different specialties every few years.

On Becoming an Effective Manager
Developing the skill set to be an effective manager of direct reports can be challenging. There are so many varying philosophies and corporate cultures out there, and you may not have much lead time before you know you’re becoming a manager. My insider’s tip is to check out On Becoming an Effective Manager training tool I have found. It’s the most inspiring, accessible and effective manager training tool I have ever seen.

On Working in the Museum/Cultural Institution World
Technology in the museum and cultural institutions industry has an unexpected learning curve. It’s not always a great fit for everyone, so museums/ cultural institutions like to hire from within and generally prefer candidates who already have museum experience. The hardest part of this career path is getting that first job and committing to it, but once you are in and have performed well, you’ll have relatively accessible opportunities to move around the country and world.
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My, How We’ve Grown!

Check out the full list of degrees offered at CDM. Then take a look at the infographic on page 2 to see how much we’ve grown.

Animation (BA, BFA, MA, MFA)
Applied Technology (MS)
Business Information Technology (MS)
Cinema (MFA)
Cinema Production (MS)
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Screenwriting (MFA)
Software Engineering (MS)

DePaul alumni automatically qualify for the Double Demon Scholarship, which covers 25 percent of the tuition for graduate degree coursework in seven of the university’s colleges and schools. Some restrictions apply. Visit go.depaul.edu/alumnischolarships to learn more.