State of the Department Address
September 26, 2012
Ray Klump

Good evening. Thank you all for attending this very important night in the history of the Department of Mathematics and Computer Science at Lewis University. I'm Ray Klump, and I have the privilege of serving as Chair of this outstanding department.

What a special night this is. You know, they say we computer science and mathematics types like to keep a low profile, that we don't like crowds or to be the center of attention. If that's true, then we are clearly well outside of our comfort zone tonight and must be feeling a bit out of sorts. Well, to be honest, this sudden limelight feels pretty darn good. I think we could get used to this.

First, let me thank you all for coming tonight to celebrate a new beginning for this Department.

- To our President, Br. James Gaffney, whose vision, selflessness, and devotion to the students of this University continue to provide an example for us all and whose efforts have helped secure a bright future for us.
- To our Provost, Dr. Stephany Schlachter, for providing opportunities for us to pursue all the new directions and challenges our ever-changing field invites us to explore.
- To Dr. Bonnie Bondavalli, our Dean, who has been so unbelievably supportive of this department that it's hard to express adequately the gratefulness we feel to her.
- To Rob DeRose, for supporting the construction project that produced new space and for providing the vision for how it should look and where it should be located.
- To Don Castello and the rest of the Facilities crew, who worked unbelievably hard and efficiently this summer to transform the old Dean's office area into something completely unrecognizable and impressive.
- To John Dalby and the rest of ITSO for helping provide the communications and software infrastructure on which we depend.
- To all the faculty and staff who are here from other departments we've worked with over the years: thank you for enriching what we do with your expertise and perspectives, for helping our students look beyond their computer monitors, and for expressing your support for us with your presence here tonight.
- To University Advancement, who tirelessly and creatively helped plan and support this night's events to celebrate who we are and what we plan to become.

- To the distinguished members of our new advisory board, including those who are here tonight , Alex Bratton CEO and Chief Geek of Lextech Services, Dana Dominiak, CEO of Webfoot Games, Mike Skwarek, CIO for Argonne, Guy Thier, CIO of Bally Total Fitness, Mark Las, Director of Information Technology at Colliers International, and Jay Johnson, System Administrator at Argonne. They've all given generously of their time and expertise to help make us a very highly regarded center for computer and math education.
- To our alumni who have returned tonight. It is so wonderful to see you again. Your considerable accomplishments speak volumes about the quality of education offered here, and you make us very proud to have been a small part of your success.
- And most importantly, to our students. You are the reason for what we do. And although homework and tests often feel like drudgery, and even though we're at that point in the semester when it seems like the walls are closing in on you, ultimately you're working hard not because that's just what students do but, rather, because you know that the future really is yours to shape.

It truly is an amazing time to be a computer scientist or a mathematician. Think about it. How central to our lives has technology become? We measure how long it's been since we last interacted with a touchscreen in minutes or even seconds. We marvel at how many emails or text messages we receive and send out in a day. And really, when was the last time you looked at a map to find out how to get somewhere? It's been a long time since some of us have been in a library. What the heck is an encyclopedia anyway?

What is truly inspiring about this point in time is that all these things were made possible by computer scientists. Furthermore, the physics and materials science that went into making the devices on which we depend all find expression in some really heavy-duty mathematics. The point is that what we do as computer scientists and mathematicians, what you students do and will do for your careers, is so vitally important to just about every aspect of our modern life. I would be hard-pressed to name another major in which one's work has the potential to make so stunning an impact.

That's quite an empowering feeling, isn't it? It's also rather sobering, because what the professors here teach better be relevant. The equipment that's in our labs better be up-to-date and reflective of what's out there in the real world. The effort that students put forth to learn all these things better be up to the task. The resources the university makes available to students better provide the experiences students need to connect concept to application. Alumni who have graduated from here better take seriously their responsibility to learn always and everywhere, never content to know just what they currently know, but always pushing the boundaries. And professors and alumni have a responsibility to work together to figure out the best way to prepare students for tomorrow's challenges and to identify ways to have students apply their classroom lessons sooner rather than later.

So, evidently, we all have a lot of responsibility in this enterprise. We all have a lot on our plates if we are going to do this whole Computer Science and Mathematics thing right. But would we really want it any other way?

Today we're celebrating a number of things. We're welcoming an outstanding entrepreneur, Alex Bratton, CEO and Chief Geek of Lextech Services, a celebrated leader in the development of mission-critical, enterprise-oriented mobile applications. To have an innovator of Alex's stature and vision here to speak to us is truly a blessing, and we thank him and fellow Lextech'ers Allsion Snell and Adrienne Szewczyk so much for being here tonight.

We're also celebrating our new digs. When I came here 11 years ago, I settled into my office downstairs in the dungeon. I shared an office with one of the best people I know, Paul Kaiser, who has taught me a lot about what it means to be a good teacher and a good person. The office had no windows, and Paul and I would tend to bump into each other when we backed up our chairs. We'd walk down the hallway to labs that also had no windows, twenty-five-year-old chairs, fake wood-grain-topped desks, white boards that couldn't be erased, and the distinctly musty smell that gave the space its own atmosphere. And we'd often have to project over the excessively loud sound of the heating unit switching on in the boiler room right next to the lab. And we'd constantly have to explain to potential students that we teach the same things as the bigger, better-known schools and we teach it better; we just do it in uglier surroundings. Well, guess what? The University came through for us. We don't have to make excuses anymore. Our lab spaces are beautiful and spacious and impressive. Our students enjoy the latest technology. They're no longer stuck in the dungeon but now study and socialize in one of the highest-traffic areas on campus. And none of us faculty share offices anymore, which means that I can be as messy and as disorganized as I want to be, and Paul can be as neat and tidy as he wants to be, and nobody will compare us to the Odd Couple. That's progress!

Let's be honest, though. We earned this. Our faculty are the absolute best. It's hard to imagine a more dedicated, skilled, caring, and innovative group of educators, people who so clearly demonstrate the commitment to service that comes with being great teachers and mentors. Steve Berger, Br. Tom, Margaret Juraco, Cindy Kersey, Paul Kaiser, Greg Manning, Br. Raphael, Joe Ninh, Piotr Szcurek – these are Lasallian educators *par excellence*.

More importantly, though, we've earned this also because our students are incredible. They are among the University's best and brightest. They participate in undergraduate research, exploring topics as different as human factors in mobile devices, optimal stock market investment strategies, and the cyber security of the electrical grid. They build applications and design databases for worthwhile non-profit organizations like the Northwest Side Housing Center, Peace Jam, and the Neighborhood Training and Information Center. They do outstanding work on internships, including at Web Foot Games and Argonne National Lab. In fact, Argonne loves our interns so much that there might be more Lewis Computer Science graduates in IT at Argonne than graduates from any other school. In fact, we have some of those Argonne Lewis alumni here tonight.

Our students help collect and refurbish computers that go to impoverished areas, such as church organizations in hurricane-ravaged parts of New Orleans. They participate enthusiastically in a number of student organizations, including the internationally recognized Association for Computing Machinery (ACM), and the Upsilon Pi Epsilon Computer Science Honor Society, the always-fun Prometheon Technology Club and its all-night gaming parties and electronics hobbyist projects, and the Kappa Mu Epsilon Mathematics Honors Society. They take some of the most challenging coursework this university offers, and they get through it, and many end up mastering it to the point where they turn it into the next groundbreaking idea or product or company. Our students rule.

We're doing a lot of things right here in Mathematics and Computer Science. We have an innovative concentration in video game programming that allows students to express their creativity and humor in computer code. We have an innovative five-year program in computer security that enables students to earn both a bachelor's degree in computer science and a master's degree in information security in just five years. We have a new but growing set of courses on mobile apps development and cloud computing. We train experts in computer networks, servers, databases, and digital forensics through a variety of courses. We teach scientists of all kinds how to model systems and solve problems using scientific software. And we'll soon have full programs in data mining and analytics that will prepare computer scientists to sift through terabytes of data of whatever kind and identify the traits and trends that matter. We're busy!

The result of our industriousness? The number of computer scientists in this department has doubled over the past four years, from 40 to 80. The number of math majors has grown, too. And now we're here, in this beautiful space, students, faculty, alumni, and even an advisory board of super-accomplished professionals willing to help guide us to expand upon our successes. We're here, ready to listen to an amazingly accomplished tech innovator who has come to share his thoughts and vision with us because he believes we matter.

What a special night this is.

We're certainly poised for more great things. We are going to continue to grow in enrollment, in quality, in the breadth of our offerings, in the impact of our research, and in the contributions of our alumni. Lots of people believe in what we are doing. Dr. Kaiser and I believe so much in what we are doing that we have committed over $10,000 to start an Endowment Fund for Computer Science. The purpose of this endowment fund is to provide an ongoing source of revenue for equipping the computer labs with the things they need to keep our courses fresh and relevant. Our students deserve the latest and greatest technology, because they are the future leaders. So, we have committed to launch this effort to give them just that. Our goal is to raise $250,000 to provide an ongoing source of revenue for the department, and we're confident we can reach that number. You'll be hearing more about this important initiative in the coming months. We hope that you will consider helping out.

You've seen what we can make happen with limited resources. You alumni lived through those years, and you demonstrate our success. You see where we are now, poised to make some really impressive gains in the next few years. We are on our way to becoming one of the best Mathematics and Computer Science program in the Chicago area. It's completely within our reach. We wouldn't be doing this tonight if it weren't.

One of the things you'll see in one of the display cases is an old photo album that shows the last time the labs were renovated. The year was 1984, and a huge, state-of-the-art Prime mainframe had just been installed by Joe Ninh, Steve Berger, and Paul Kaiser. Paul and Joe even spent much of the summer tearing down walls and painting the new labs themselves. It was a real do-it-yourself kind of project, something they poured a ton of themselves into. They believed in the cause. They saw their work as a vocation, not a job. And look, today, at the success that kind of effort has brought.

It is now my pleasure to introduce another success story, Alex Bratton. Alex Bratton is a technology visionary and veteran entrepreneur motivated by his passion for implementing technology in new ways. He specializes in identifying unique business opportunities by forecasting the impact of new technologies, and then applies that knowledge to create revenue generating companies, systems and products. Alex currently serves as CEO for two Chicago area technology companies - Lextech Global Services, a leading developer of mobile applications with serious business value, and Lextech Labs, an award-winning mobile video surveillance solution provider. Alex founded seven other companies before founding Lextech Global Services in 2001 and Lextech Labs in 2008. He is an innovator's innovator and we are so fortunate to have him here. Ladies and gentleman, Alex Bratton.