

UBIQUITY INTERVIEW WITH NEUMONT'S GRAHAM DOXEY

Neumont University in Salt Lake City was featured in Ubiquity two years ago, with an interview with one of its founders, Scott McKinley. We wanted to go back and see how they're doing at this new and unique institution, about which senior vice president Julie Blake has explained: "The industry has said for years that even our best universities aren't preparing students for the workplace. Neumont was founded to fill that niche." Below is a Ubiquity interview with Neumont cofounder and President Graham DoxeY.

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UBIQUITY: You're the president of Neumont and co-founder with Scott McKinley is the former CEO. Why don't you start by talking about how the two of you decided to create Neumont University.

DOXEY: Scott and I have had successful careers in private equity and investment banking. Our third partner, Marlow Einelund, who had spent his career in software development, had deep experience with the industry-wide shortage of software development talent. We began to meet to share business solutions to this problem.

UBIQUITY: And what did you find?

DOXEY: We found that one of the biggest problems technology companies have is finding competent entry-level people that don't cost them an arm and a leg to train. The problem starts when new graduates in computer science enter the work force with four years of theoretical education – but have not worked on the business side and don't have practical experience. It's an extremely expensive problem, a multi-billion-dollar problem in the United States. We began to visualize an educational platform through which you could educate students in the theory *and* the practice at a level where, when they've completed the program, they were actually able to perform their jobs from day one. Later we formed Neumont University. Today we have the same mission – to educate the most sought-after software developers in the world. We have transitioned to become educators.

UBIQUITY: Well, that sounds like quite a shock to the system, to go from finance into education.

DOXEY: Yes, they are very, very different things. In the beginning we had planned to limit our day-to-day involvement and remain investors. But as we built

the University and the curriculum, we realized that we were building something that had never done before. We were pioneering a breakthrough approach for post-secondary high end education in computer science. It would be hard to find a management team that could step in and implement our vision.

UBIQUITY: Now, the last time we talked to Scott, well over a year ago, you guys were just getting ready go host your first job fair. How did that turn out?

DOXEY: Very, very well. Quarterly career fairs are now an established part of our program. Each quarter we have 15-20 companies exhibit on campus to interview our students and share employment opportunities in software development. We convert the campus into interview rooms and an exhibition hall, and it's an exciting time. We've had a really good mix of Fortune 500 companies, as well as local, small and early-stage companies participate.

UBIQUITY: Have you been successful placing your graduates so far?

DOXEY: Our graduates are earning average starting salaries over \$60,000, which is about an 18 percent premium over the national average for new graduates in computer science. And in the Utah market here it's more like a 30 to 40 percent premium. What we're finding is that the employers are excited when they see that they can hire Neumont graduates who don't require another \$150,000 to \$200,000 investment in training. That's real savings. Our graduates are averaging more than 2 job offers prior to graduation and almost all of them accept one before completing the program; so yes, we're very pleased with our placement rates to date.

UBIQUITY: Did the employers ever express their enthusiasm for Neumont in a way that's negative to other traditional schools? (You don't have to name names.)

DOXEY: No, not really, it's more like saying, "Oh, finally!" You know, they still need to find talent wherever it is, and they will still recruit at other schools. But they're excited by our graduates and they'd like more of them. I know in the case of one employer, they're working with some of the local colleges to try to create some programs that are similar to our enterprise project program, just because it's so valuable to them. And they'd like to have more schools doing project-based learning.

UBIQUITY: Are they completely happy with your curriculum? Do they find it just right, or do they urge you to change it in some way?

DOXEY: Employers are on our campus a great deal – for career fairs, to speak in our classrooms, or to participate in student projects. We regularly ask them what their recommendations are. What’s more, we conduct forums where we invite employers to come in and tell us what is going on in their industry that we may not be covering. So we're constantly evaluating our curriculum based on their recommendations. They appreciate the fact that we're so current and relevant. But of course some employers will be more focused, let's say, on the Java Open Source world, whereas others will be in the Microsoft .NET world. So they may come in with a particular bias and say, well, we'd like you to be deeper in one technology than another. Of course we listen and use the information to anticipate what industry needs will be a year or two from now, and make sure our students are exposed to that. So, yes, the curriculum is one thing they do express enthusiasm about, and the other is our methodology which stresses team-based, project-based learning. I can't tell you how many times employers have expressed their enthusiasm about the fact that we take these nerdy, geeky kinds of kids and teach them to work on the business side. They stand up and do presentations, interview well, and learn to collaborate as part of a team. That’s probably the thing that we get most praised for by employers.

UBIQUITY: Do any of your graduates – and these are graduates with a bachelor's degree, right? The B.S. degree?

DOXEY: That's correct.

UBIQUITY: Have any of them gone into research, academic careers?

DOXEY: Not yet. We've only had about 60 graduates and we'll have another 30 complete the program in a few weeks. So, we'll have 90 this year. We only have one or two interested in that kind of career out of that 90. Most of our students are much more interested in going into industry. However, for those interested in research we do offer the master's degree in business, and we've had a number of students continue on for a master's degree. It's more of an executive MBA, allowing them to get their jobs and then work on the degree after hours.

UBIQUITY: Do you feel that you've created a new paradigm in Neumont?

DOXEY: Yes, absolutely. Basically, we've been able to do a couple of things to effect a paradigm shift. First, we threw away the agrarian calendar and go year-round, eight to five, Monday through Friday. It's a logistical paradigm shift, which

is maybe not the most innovative thing in the world, but it is different and it is very important because no other schools are doing that in the field of computer science. But the major shift at Neumont is our balance between the craft elements of computer science and the science element. Computer science students have had only had two choices in the private education world to-date. One is to go to an elite private school, where they have very high-quality faculty and theoretical educational focus, or to go to a vocational or a technical school. Well, on the theory side Neumont's faculty are distinguished – many are published or have written books used in the classrooms of other top-tier Universities. Our project-based curriculum is highly relevant to industry, so our program also attracts faculty members directly from the technology industry. And yes, they do have bachelors and masters degrees, but they also have many years of industry experience -- 30 years in some cases. So our students, who learn by participating in projects, learn to build software using the tools and technology that the industry is depending on today. Another thing we've radically deemphasized is the lecture system. We're 70 percent project-based, which means that the old Oxford model of stand and deliver -- the "sage on the stage," or whatever you want to call it -- that old model of teaching sciences, represents only about 30 percent of Neumont's program. So it's a very different paradigm, built on the principle of learning computer science as a craft *as well as* a science. It's just not a model that exists anywhere else.

UBIQUITY: You've already received quite a lot of interest from industry; have you gotten much recognition from academic institutions?

DOXEY: Not broadly. However, the recent report published by the Department of Education Secretary Spellings' Commission on Higher Education highlighted Neumont as an example of curriculum innovation in education. I'm not sure that academia in general recognize us as educators. But they've been polite, and I wouldn't speak negatively of any of them. Much of their reaction is very traditional, and of course many folks from the academic world are traditionalists. In that worldview, if we're not educators then we must be trainers by definition -- we have to be one of those two traditional entities that have been the only models that existed up to now. It's been very difficult to get them to understand that there's actually something that's not either one, but the new paradigm we just described.

UBIQUITY: What do you suppose it will take to get you complete respect from academic institutions?

DOXEY: I think that our first objective is to gain the respect of our industry customers.

UBIQUITY: Well, you seem to be doing well with that, right?

DOXEY: Yes, and that's really important to traditional educational institutions, because they service the same customers we do. And I think at some point they'll have to respect us, if we are actually doing a better job of providing what industry is looking for than they are. And we will be vulnerable, subject to criticism for educational value. But if the employer sees what we're doing as just as valuable or perhaps greater in value than what the traditional programs are producing, then those traditional programs will recognize the value of a Neumont University education. I expect that they will continue to raise questions such as, "Is this education or training?" Well, we agree with them that education is not just teaching somebody a specific tool and how to use it, but teaching people how to manage a self-directed learning process to acquire knowledge and skills in the most up to date and relevant technologies and tools and teaching them that this is the beginning of their life-long learning journey.

UBIQUITY: Is it the fact that you are so involved with industry that makes them think that you're just doing training?

DOXEY: That, and the fact that we measure ourselves quite bluntly in terms of starting salaries and placement rates, whereas they typically don't measure the outputs as much as they measure the inputs. So, if they talk about quality of education, they would tell you that they deny something like 90 percent of their applicants, which means that the smartest students in the country are coming to our school. And frankly, that's a good thing, but that's a niche. If they take the top 10 percent and put them in top 10 percent of the jobs, they really haven't impacted the system by very much. They have created an incredible environment for those top students to acquire knowledge and thinking skills, based on what we are seeing in the market place that isn't solving the need for more people with technology based problem solving skills. What we believe our new paradigm can do is take a broader segment of the population and prepare them to contribute immediately and in the long run. I don't think we'll ever be respected on the same level of elite schools if quality is defined by the same metrics that they use to measure their success, because we have a different metric system for success. But if we're successful at what we're doing and industry recognizes that, I believe that's more valuable. No doubt there will be a group that will call what we're doing a sell-out to industry and a threat to educational integrity, but there will also be groups that recognize that what we're doing is solving some pretty big problems in our country. I would tell our critics to examine other industries – like the medical profession, for example.

No hospital would hire a surgeon who had not gained practical experience as part of their medical curriculum. In like manner, we're not cutting corners – we're giving our students a solid foundation in computer science theory – but we're adding the practicum as part of the degree program.

UBIQUITY: What are your current plans for expansion?

DOXEY: We are in the process of negotiating for space in northern Virginia for our next campus, and we expect to have that campus operating next year. We're also raising capital to get another two or three campuses after that, over the next five or six years.

UBIQUITY: And the funding comes generally from where?

DOXEY: From the private equity market. At this point we're not a public company, so if we need capital we have to go to private equity sources. Of course, as we become more profitable, more and more of that will be funded internally.

UBIQUITY: You get any financial support from industry? In other words, what are the various money flows? You get tuition, right? Which averages about how much a year?

DOXEY: Tuition is about \$72,000 for the degree. Years are always a bit muddled in education, because most schools use academic years, which is just nine months, not a full year. In contrast, a Neumont student can graduate in two calendar years, and will pay \$72,000. If you divide that into the eight quarters that they took, it's about \$9,000 a quarter.

UBIQUITY: Do you get any revenue from industry?

DOXEY: We haven't taken any money from any of the employers.

UBIQUITY: Have you asked?

DOXEY: Not really. We haven't invited them as investors from an equity standpoint. IBM once asked, "When are you going to ask us for money?" And we said, "Well, we don't think we want to do that." That's part of the educational integrity thing, I guess. If we're going to be relevant, we have to have the flexibility to be relevant to the current market at any given time. So we have funded Neumont privately.

UBIQUITY: The devil might suggest that you ask some of the traditional institutions whether they would be interested in taking money from IBM.

DOXEY: Yes, and they would as grants or scholarship programs. We have talked to IBM and others about setting up programs to create scholarships for our students. We would be happy to accept grants, scholarship, and sponsorship programs. We would appreciate employers' financial support of Neumont in this way.

UBIQUITY: How would expect Neumont to change over the next 15 or 20 years?

DOXEY: That is a really good question. We aren't really like a University of Phoenix or an ITT Tech, where their prime student is typically a commuter, and you find lots of campuses within 20 miles of where the customers are. In our case, we're already drawing people from 44 states and 11 different countries. And we're pretty comfortable that if we get into larger metropolitan areas, like northern Virginia for example, we'll be able to draw within 300 to 500 miles of the campus, and so having a number of regional campuses makes sense.

UBIQUITY: Have you had any discussion among yourselves about whether eventually it might be interesting to tie this with something besides computer science? Microbiology or something?

DOXEY: Yes, we've looked at that and we have wondered about other degree programs that might benefit from project-based learning. We haven't identified one to focus on yet, but we're looking at it.

UBIQUITY: One final question. We didn't talk about your student demographics.

DOXEY: I mentioned the geographic diversity we have, but we had anticipated that most of our students would come straight from high school, and we'd also have some adult learners. In reality though, about 40 percent of our students come straight out of high school, 30 percent are transfer students from other universities, and 30 percent are adult learners. So 60 percent didn't come straight out of high school, and 70 percent are within five years of high school. It's a pretty interesting mix of students. Our classrooms look a lot like the real world. Project teams at Neumont include students with experience as well as young people who have no real-world experience. That kind of experiential diversity has added a great deal to the quality of our program, and we hadn't really predicted that.

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