How the LGO program bridges the gap between management and technology

Michelle: Welcome to another MIT Sloan podcast. I’m Michelle Choate along with my co-host Michael Perrone. Today we welcome to the studio Don Rosenfeld, senior lecturer and director of the newly named LGO program, welcome Don. Perhaps we could start off by giving an overview of the Leaders for Global Operations program and how it evolved out of the Leaders for Manufacturing program?

Don: Leaders for Global Operations program is designed to be the premier program for educating students in both management and technology. So the essence of LGO is a dual degree program, and MBA and a master of science in one of eight engineering disciplines. They idea is to bridge the gap between management and technology in recognition of the concept that leaders of these organizations, leaders of global operations companies will need to have a deep understanding of both management and technology. It grew out of the leaders for manufacturing program, which was started 20 years ago, through the broadening of the concept of manufacturing, when we started the leaders for manufacturing program in 1988, we had the view that manufacturing was critical for societal welfare, but we viewed manufacturing as what we call begin manufacturing going from product concept through delivery. As the program evolved over 20 years we recognized that the skills involved in running major manufacturing companies were similar to the skills involved in running other types of operations companies. And so as we brought in companies such as Amazon.com who are engaged in the broader concept of operations, we recognized that we might have to expand the concept of manufacturing to the concept of operations.

Michael: Who’s the ideal student for this program?

Don: The ideal student has at least three years of experience in, ideally in an operations company, but we look for students that have a wide range of business experience. The student has an undergraduate in science or engineering and is interested in a career in operations.

Michelle: Now you mentioned Amazon.com, can you talk about the company component of the program and what the companies bring to the program for the students?

Don: The partnership with a wide range of companies is very important to LGO. We started out as a partnership between the two schools and a number of important
manufacturing companies originally all located in the United States. Now we’re engaged with a wide variety of companies globally, they encompass a wide variety of operations including manufacturing, and they work together closely with us in all aspects of the program. They work with us in governance, they come to MIT to speak to our students, they host plant tours, and most importantly they’re the host for a six month internship, which is a critical part of the educational program.

**Michelle:** So is the internship on site, the students are literally away from campus for six months working at the company?

**Don:** That’s right the students are on site for six months. Usually at the end of the first year, our program starts in the summer, so the usual path is that students spend the summer, a fall, and a spring then go on the internship, return for final semester. About a quarter of our students start their internship after the first fall, return at the end of the summer and then complete a fall and a spring.

**Michael:** What’s the advantage to the companies the partner with the LGO?

**Don:** Well there are a number of benefits, one is talent acquisition, the companies, and there are I believe 19 of them, that are partners with LGO have a special recruiting week in November and this year about 55 percent of our students took jobs with partner companies, so that’s talent acquisition. There’s talent development, the partner companies are entitled to sponsor students to LGO, there are about, five to ten percent of our students are sponsored by partner companies. And we also have a number of web seminars and other conferences that are available to our partners. Third is the internship. The internship, the six month internship is a significant part of the program it accompanies a benefit from those significantly the, many of our internships have reaped enormous economic benefits for their companies. And finally the companies have the benefit of interacting with the rest of the LGO community, the other partners, MIT faculty and so forth, to help them improve their operations.

**Michelle:** A lot of MIT Sloan’s traditional MBA students have science backgrounds and engineering backgrounds. So how would you help someone decide whether the MBA program or the LGO program is the one for them?

**Don:** Well certainly students that have a science or engineering background have choices. In fact, a student can be part of the MBA program, take a wide variety of operations courses, some of the same courses that we have in LGO, the interoperations management course, operations strategy, product development, service operations. They can duplicate some of the LGO experience if a student wishes to get a background in operations, the MBA with an operations focus might be adequate. But if a student wishes to delve deeper into technology, take a battery of engineering courses that are a significant part of LGO, then LGO would provide that additional benefit. In addition we have a number of interdisciplinary activities including the internship that is a part of LGO. So certainly the MBA’s an option, but the LGO program goes into a little bit richer experience for those students interested in operations.
Michelle: Now you’ve been with the program and MIT Sloan for a number of years. What are the major changes that you’ve seen in terms of manufacturing and operations over that time that some in particular might surprise someone that’s interested in delving into the field?

Don: Well there’s two, let me emphasize two types of changes, changes that have occurred in operations and manufacturing and changes that have occurred within our program. So within operations and manufacturing operations has become more global. It was quite global in 1988, but it’s become more global. Supply chains have become more complicated and more interdependent through different companies around the world. The operations has become, has gone from outside manufacturing to other types of companies. So today companies are more focused on different parts of the value chain and you have companies that focus on services such as Amazon that use that use the same type of skills that manufacturers do, but they’re focused in this other area. Within our program, we’ve become more international. LGO started as program to help save U.S. manufacturing. Now it’s more focused on operations as a global activity and more focused on how to compete in a global basis and how to compete in operations. Some of the premises are still the same. We still view manufacturing operations as critical to societal welfare, just as we did in 1988.

Michael: How big is the program?

Don: We have about 48 students a year. And it’s been about that size, oh for the last 15 years or so.

Michael: Did the students benefit from having such a small group?

Don: We think so. They get the advantage of a fairly small cohort that they take many courses with but they’re also part of the larger community. They’re part of the Sloan, the MBA program for example. They’re part of the, they’re a full part of the core program that meets every fall, they’re part of the engineering committee so they get the benefits of both the larger community and the small cohort.

Michelle: Do a lot of LGO students go back to the companies that they were with prior to getting their degree?

Don: I wouldn’t say a lot of them do, but there’s certainly a significant minority. There’s about five to ten percent of the students that are sponsored by partner companies and then there’s probably another few percent that worked for other companies and went back. There are some students who are not sponsored by partner companies that come from partner companies, they take leave and they might return as well. So all combined I would say, it’s probably about 15 percent.

Michelle: Have you seen any of the effects of the global financial crisis yet creeping up into some of the operations and has it affected the way that the program is teaching anything?
Don: Well the immediate effect is that there are fewer people, this is more a fact of the MBA program, but clearly fewer people went into banking and finance. We have never had a lot of people going into banking and finance, but it was even less this year. And so the partner companies I think were much more focused on recruiting this year and the percent of our students going to partner companies was actually higher this year. Certainly in what we teach it’s affected things, more the finance courses that are part of the MBA program than the LGO students take.

Michael: In the transition from Leaders for Manufacturing to Leaders for Global Operations, did the curriculum has it evolved in that direction gradually? Are there major curriculum changes?

Don: I would say over the course of the years we’ve had evolutionary changes in the LGO curriculum. And that trend did not accelerate greatly with the name change. Now what we did do in conjunction with the name change was reviewed our brand and we reviewed everything about LGO. And one of the things that came out of the brand study was that we should have technology tracks, focus tracks in certain areas. And we’ve created some, we actually had some of those, but we’ve created some additional ones. For example, we’ve created one in semiconductor processing and nanotechnology for some of our students. We’ve created one in environmental sustainability. And these are, I think that these track to the extent that reflect global interest, go along with this name change. For example, environmental sustainability is a global concern clearly. And that’s consistent with what, with the I think the name change and the evolution. You know, if you look over twenty years, I think that what you see is more emphasis on say supply chain. Supply chain was always important, it’s more important now. Supply chain is a concept, is a global concept and that kind of reflects the name change as well.

Michelle: If you had to say sum up in one sentence kind of the elevator pitch of the program just, you know, so that we know how to talk about it, what would you say?

Don: We are preparing leaders to run the world’s operations companies. And those leaders are at the cutting edge of both management and technology.