Intellectual Capital: John Sterman discusses the new MIT Sloan Teaching Innovation Resources (MSTIR)

MIT Sloan launches free management education resources at its new portal MSTIR

Michelle: Today we welcome Professor John Sterman to the studio. John is one of the faculty involved in the MIT Sloan teaching innovation resources website, which will debut in mid-January. Hi John. Perhaps you can begin by explaining what the MIT Sloan teaching innovation resources are?

John: So the Sloan teaching innovation resources website is a web portal to original case studies and other teaching materials that are all going to be available through MIT Sloan entirely for free, for anyone to use anywhere. It piggybacks off of our open course initiative here at MIT, which has been enormously successful. There are thousands of MIT courses and their associated teaching materials. Our Sloan teaching innovation resources portal provides case studies and other teaching materials that are specifically designed for management, business schools, and business professionals.

Michelle: And how does this differ from say other teaching materials that other schools are doing, you know, the infamous Harvard cases, things like that?

John: Well some of the Harvard cases are terrific and we have used them occasionally at Sloan, but one of the distinguishing features of course besides the fact that all of these materials are going to be entirely free, is that MIT brings special skills and expertise in certain areas including our initial three areas of focus for the Sloan teaching innovations resources portal, which are industry evolution, entrepreneurship, and most importantly for me sustainability. These are areas that are emerging, they are changing very rapidly and there’s not sufficient current high quality case study and other teaching materials on them.

Michelle: So you feel that MIT Sloan, given our expertise and the work we’ve done in these areas uniquely positions is to provide material on those topics?

John: Absolutely and this doesn’t say of course that you can’t get excellent teaching materials from other sources, but of course MIT is not only a first-class institution in studying entrepreneurship, but in creating it and fostering it. A huge number of com-
Companies have emerged from MIT, not just MIT’s science and engineering schools, but also from collaborative projects between the science and engineering disciplines and the Sloan school. So we’re in the trenches, we’re out there doing it and the entrepreneurship materials are I think particularly current, relative, and exciting. It’s similar with industry evolution, many people may not know what that is, but is has to do with the way in which the structure of an industry coevolves with the firms, the number and kinds of firms that compete within that industry, their supply chains, their customers, the context to which they are embedded, and the capabilities of those organizations. So in those two areas, Sloan has particular expertise and we’ve got some very exciting materials there. The third area, sustainability is the one that’s nearest to my interest and it’s greatly understudied. It’s moving very fast. Some people think it’s a fad, I completely disagree with that. This is not going away, it’s going to be getting more important and more pressing over time. And firms that are able to make important real changes to their operations, to their product line, to their product development processes, to the way they position themselves and partner with other folks, including customers, regulators, financial markets, labor markets, et cetera, those firms are going to be positioned for success. Firms that are falling behind the curve are at risk of extinction.

Michelle: What are some of the cases that will be available on the website?

John: So one of the cases that’s going to be on the site at launch is on sun power. Sun power is a leading producer of solar panels, solar modules in California. It gets at multiple issues. One issue it gets at is solar power, solar electricity, photovoltaics, as a technology. What underlies that, how fast is it evolving, how fast is the learning curve, how quickly are costs falling, and what are the issues about the potential size of the market, how fast might it grow. The case teaches people about a whole set of issues around building a new industry. In addition, you can use the case in a traditional strategy course that’s not focused on sustainability because it a case that gets at core issues in strategy around learning curves, scale economies, technological spillovers. If I invest heavily in R&D as sun power for example, how closely can I hold those innovations? Do they spill over to my competitors or are they privately appropriable? These are core issues in strategy that play out in many industries and this particular case illustrates them extremely well.

Michelle: Yeah I would imagine that strategy with sustainability probably is a very different animal because a lot of the goals of sustainable business might go against the having a competitive advantage with another business so is, does that come into play? Is there some talk of that?

John: There’s a lot of truth in what you say in the sense that people believe that there’s a conflict here. And one of the key findings from our work in sustainability is that that’s often not the case. That actually in many cases there’s a tremendous alignment between the imperatives of the business to be successful, to deliver value for shareholders and what’s good for the environment, good for your community. So that’s not to say there are never any conflicts and it’s certainly not to say that there aren’t any transition issues. There are and that’s a major focus of our work in sustain-
ability and you’ll see some of those issues come out in the cases on sustainability that are available on the MSTIR site. So there’s another case on grid logics, a start up that came out of MIT so it’s an interesting case from an entrepreneurship point of view. It’s also an interesting sustainability case, they produce sophisticated sensors and software that reduce the energy consumption of buildings and other infrastructure very dramatically, but who’s the customer? The customer is the building owner or manager. Well in many organizations, the person who pays for the capital budget and the person who gets the benefits of the lower operating costs are different people in different parts of the organization. So you have a classic agency dilemma that can thwart implementation.

**Michelle:** I imagine for you one of the many benefits of the teaching innovation resources, or MSTIR as we’re abbreviating it, is that folks that aren’t at MIT Sloan and aren’t in these classes can benefit from some of this knowledge and maybe as you said some of these more surprising outcomes that sometimes the benefits do align with the profits and the benefits to the planet.

**John:** Absolutely. So this has always been a competitive advantage of Sloan, that the research that the faculty do gets into the classroom very, very quickly. That’s one of the things I personally enjoy about teaching here, students have the appetite and the capability for it. And I find that that’s also true in the world of executive educations, they’re hungry for it, they’re ready for it, they can handle it, and shortening that delay means the cases are current and relevant to the issues that are top of mind for the practicing managers.