The Fitzgerald Executive-in-Residence Program

The 2015-2016 EIR Project:

“Drone Technology and the Supply Chain Industry”

The 2015-2016 Fitzgerald EIR:

Gerard ElChaar
Principal

Quote from EIR:

“I’m very excited to serve as the next Fitzgerald Executive-in-Residence and to interact with students on an intriguing, thought-provoking subject: Does drone technology have any application in the Supply Chain industry?”

Background:

Today more than ever, supply chain is embedded in all business transactions, and as efficiency drives down the price of the product, a detailed understanding of every step in the system is paramount. It is not always cost that determines routing, but speed of delivery and accuracy. A product delivered earlier will ensure the opportunity of sales and stymies competition. Drones are associated with their usefulness in targeting terrorists in foreign lands. Just as with every military technology, commercial applications spawn. None is more interesting than the potential use of drone technology in package delivery.

Today, there are three large package-delivery carriers for all retailers in the United States: FedEx, UPS, and the Post Office. In a recent interview, Jeff Besos, the Chief
Executive Officer of Amazon.com, which is heavily dependent on one of the carriers, announced that he is seeking the use of drones to deliver packages. In his comments, he was insinuating the reason was the lack of choices and the ever increasing cost of package delivery. In reaction to his comments, the Federal Aviation Administration said it will not approve such uses of the technology. Amazon has stated that it will shift its research effort to India, which has fewer restrictions on drones. Does drone technology have the potential for creative destruction to the package-delivery industry; and, if so, what will the future look like for retail?

The 2015-2016 Fitzgerald EIR’s Bio Information:

Gerard ElChaar is a semi-retired executive, having most recently worked for Coldwater Creek Inc. as Senior Vice President of Operations, Call Centers, and President of Outlet Stores and Spa. He is a native of Lebanon and is fluent in three languages, including French and Arabic. He graduated with a Bachelor of Science in Electrical Engineering and a Master of Science in Industrial Engineering from Lehigh University, in Bethlehem, PA. He has traveled extensively throughout Europe, Russia, Haiti, and the Middle East. ElChaar relocated to the mid-Ohio Valley 14 years ago after a two-year assignment in London, where he was a managing director for eToys. Before that, he was employed with Amazon.com in Seattle, WA (during start-up), Time Inc., Berwick Industries, and Masland Industries. He is the former Chairman of the Board of Governors for the West Virginia University in Parkersburg (WVUP), where he previously served on the Board of Advisors and later the Board of Governors. He also serves on the Board of the Boys and Girls Club of America in Parkersburg, WV.

Project Description:

During the 2015-2016 academic year, three groups of 2-4 students each will be asked to choose and explore the potential and impact of drones on the transportation industry in terms of three areas: engineering (technological feasibility), law (legal hurdles and public policy issues), and business (potential impact on retail industry). The three groups will work with an executive team at FedEx Ground in Pittsburgh in order to get first-hand experience with the complexities of the system. Students will evaluate the possibility of using drone technology and the impact it would have on current methods of delivery. Students will consider how drone technology may have the potential of revolutionizing the package-delivery system.

Project Outcome:

Each team will be asked to prepare two deliverables: a brief paper (5-7 pages long), and a presentation discussing the benefits/challenges of drone technology and the
feasibility of commercial application in the package-delivery industry from the perspective of one of three areas: engineering, law, and business. These two deliverables will be presented to a FedEx Ground’s executive team in Pittsburgh at the end of the EIR project.

**Project Plan:**

This year-long project is divided into two parts. In the fall semester, the teams will work with the Executive-in-Residence to gain an understanding of how the supply chain industry works (with a specific focus on package-delivery systems); and how drone technology works. In the spring, the three teams will prepare a paper assessing benefits/challenges of drone technology and present their team papers to a FedEx Ground’s executive team in Pittsburgh.

**PLANS FOR FALL 2015:**
- Basic Research: understanding the network of a carrier or delivery from point A to point B and key performance metrics involved; understanding how drone technology works.
- Site visit to FedEx Grounds’ facilities in Pittsburgh.

**PLANS FOR SPRING 2016:**
- Based on the background work done in the fall, the three teams will prepare their papers and presentations related to their specific themes (engineering, law, and business).
- **CULMINATING EXPERIENCE** – Presentation in April 2016 to FedEx Senior Management in Pittsburgh.

**Credit Hour Opportunity (Optional):**

Participants may elect to enroll in LEAD 340 (Leadership Practicum III) during the fall (2015) and spring (2016) in order to receive up to 2 credit hours for the EIR Project. Participants do not have to be enrolled in LEAD 340 in order to participate in this project.

**Application Process:**

Please send your resume to Dr. Perruci (perrucig@marietta.edu) by **Friday, April 17, 2015**. All resumes will be reviewed by Mr. ElChaar, and the teams will be announced by the end of April. **All Marietta College rising sophomores, juniors and seniors are eligible to apply.**