INSEAD Ph.D. Graduation Speech – 2017 -- Linda Argote

Congratulations! I would like to congratulate the Ph.D. graduates, their spouses, partners, families and friends. You have worked hard, demonstrated that you can do innovative research and earned doctorates from INSEAD, one of the very best business schools in the world. Excellent Travail!

I would also like to congratulate your professors who have provided you with an exceptional education and supported you as you developed your research capabilities. You are going to positions as professors at the best business schools in the world – Columbia Business School, Imperial College London, the University of British Columbia, University of Maryland, the University of Toronto, the University of Virginia, and my own Carnegie Mellon University, to name a few. I know first-hand from our recruiting last year that INSEAD is an excellent program. At Carnegie Mellon, we follow the advice of our late colleague, Herbert Simon, a Nobel prize winner in Economics. Herb argued that the key characteristics to look for in evaluating research are: first, is the work interesting and important; and second, has the researcher proved or shown what he or she is claiming. That is, does the evidence support the hypotheses or claims?

Some of us establish our claims by mathematical proofs. Others test our hypotheses with empirical data. It is critical to do this very rigorously – to only draw conclusions that are supported by the evidence. The strong empirical skills that you have acquired at INSEAD will serve you well in your research careers. The ability to analyze data and draw appropriate inferences are skills that the world desperately needs. Whether it is discussing evidence about climate change or income inequality, the world needs people with the skills and courage to analyze data and draw appropriate conclusions. In some parts of the world, we hear a lot about "fake news" and "alternative facts." You can be a counterforce to these trends. We need people to identify what the evidence really says and what the facts really are. You have the knowledge and skills to do this and thereby contribute significantly to society.

Aim to do work that is important – work that has an impact and makes a difference in the world. As one of my colleagues is fond of saying, "Don't spend energy dotting the I's and crossing the T's in the literature." Do work that breaks new ground and solves important problems. Do work that you find interesting and important. Working on problems that interest you will make the process enjoyable and sustain you during the long nights that it can take to bring a project to fruition.

If you think the problem is important and believe in what you are doing, you will be able to convince others of its importance.

In your careers, you will encounter a tension between exploiting what you already know and exploring new horizons. This tension between exploitation and exploration is one that Jim March so eloquently talked about in an influential Organization Science article. Jim argued that organizations need to both exploit and explore. An organization that just exploits will get better at what it is currently doing but will miss out on changes in the environment that might make its work obsolete. The iconic example of this is Ford's production of the Model T Ford, an open-car design. Ford perfected the production of black Model T Fords but lost market share to GM when GM started producing more comfortable closed-body cars that customers wanted.

On the other hand, just focusing on exploration can be harmful. A firm that focuses on developing new ideas but does not use them will miss out. An iconic example of this is Xerox PARC, the research arm of Xerox Corporation until 2002 when it became a wholly owned subsidiary. Many of the inventions that fueled the shift to modern personal computing were made at Xerox PARC. Laser printing, object-oriented programming, and the graphical user interface (GUI) operated with a mouse, were all invented at PARC. While society has benefitted from these inventions, Xerox failed to exploit them inside the firm and thus, did not benefit from the inventions.

The tension between exploitation and exploration also applies at the individual level. One of the things that you will want to do throughout your careers is balance exploiting what you already know versus exploring new horizons.

As far as exploitation, you need to publish your dissertation and the other work you have in progress. There may be important follow-up studies you have in mind in the area of your current research. You want to do studies that build on each other and contribute to your identity as the person who advanced our understanding of an important issue.

For researchers, a big part of exploiting is fine-tuning your work and publishing it. Having served as an Editor at Organization Science and a Departmental Editor at Management Science, I have some advice for you. View your editor and reviewers as colleagues, not adversaries. Rich Burton at Duke University reminds us that the first journals were Letters – scientists writing letters to their colleagues to convince

them of new and important findings. Keep this in mind when you submit to journals and deal with the review process. When you get a "revise and resubmit", don't gripe, be happy. A revise and resubmit is good news: in the 4,000 or so papers I handled at Organization Science, none were accepted on the first submission. When you submit your revision, you should convey in the tone and thoroughness of your reply that you want to be responsive to the concerns the editor and reviewers raised. You will want to explain how you responded to each of their comments or explain politely why you did not respond. Don't change things that you were not asked to change. As Editor, when I received a revision that began, "Your review led me to scrap the draft I sent you and begin anew," I would shudder because we weren't asking the author to totally change the manuscript -- we were asking for specific changes. By totally overhauling a manuscript, you run the risk of introducing new problems. You want to be converging on a draft that everyone is happy with – not going off in different directions.

And if you get a rejection decision, you should see if there are any comments that could improve your manuscript and make those changes before sending it to another journal. You want to keep improving. And there is a reasonable chance that you will get one of the same reviewers who will be very annoyed if he or she thinks you did not use the thoughtful comments they provided. Also, be persistent. Every serious researcher gets rejection letters. Don't get discouraged. Revise your manuscript and submit it to another journal.

I would also like to suggest how you can explore new horizons. One of the great things about joining such excellent universities as you are is the opportunity to learn new things. You will want to attend seminars and interact with faculty in the halls or over lunch to learn about what others are doing and possible connections with your work. Sitting in on each other's classes or jointly teaching Ph.D. classes can enable the sort of deep interaction that leads to new research. Conferences and professional meetings are also important mechanisms for learning new things. It is also valuable to talk with managers in organizations – not to have them define what you are working on – but rather to learn about the problems and issues they are facing. These problems can enrich your research.

One of my favorite examples of a researcher who both explored and exploited is Andrew Wiles, a mathematician who proved Fermat's last theorem, a conjecture that had been unsolved in mathematics for three and a half centuries. Wiles worked

on the proof for six years while he was a professor at Princeton. He continued to exploit by publishing in his prior research area during those years. Although he initially worked in secret, Wiles later offered a graduate-level course at Princeton where the goal was to work through the details of his proof to be sure it was correct. A faculty member took the course and provided valuable feedback. Wiles exploration of Fermat's last theorem resulted in a successful proof that (with some modification by Wiles and a former student) has withstood the test of time and resulted in many awards.

I would like to give you a personal example of my own exploration. I began my work on organizational learning when I was an assistant professor at Carnegie Mellon, a university that encourages interdisciplinary research. A colleague in Economics, Dennis Epple, and I started talking about research on organizational learning and knowledge transfer. This colleague became my husband and is here today with us. Dennis and I visited Stanford for a year, where I benefitted from participating in Jim March's course on organizational learning. Interactions with managers at firms also influenced our research. Through a project on technology that was taking me into firms, I discovered how much attention certain firms paid to their learning curves, improvements in performance that occurred with experience. For example, one firm had fired a manager because he wasn't moving down the learning curve fast enough. Another firm was struggling with the issue of whether to assume in its forecasts that organizational knowledge was cumulative and persisted through time or whether organizations forget some of the knowledge that they acquire. Another interesting question was suggested by a third firm that had plants that were producing the same product but with very different rates of learning, and the firm did not understand why the rates of learning differed. When we looked in the literature, we did not see answers to these puzzles. So we embarked on a research project aimed at understanding organizational learning and the retention and transfer of knowledge acquired through learning. For Dennis and me this research would be an example of exploration because it was a new area for both of us. Working in this area has connected me with faculty at INSEAD, who work in similar areas, which has been a very enjoyable experience.

And this brings me to the last point I would like to make -- the importance of community. Being part of a community is an important part of your career. You need to find and/or build your community of scholars. Interacting with these scholars will enable you to keep up with and contribute to your area. People often say that it is the smaller conferences where one learns more and has more satisfying interactions. And it is senior people in your community who will most

likely be asked for letters for your promotion and tenure decision. So be sure to find or start a community of scholars working on similar issues and contribute to it.

So, in closing, I want to reiterate the importance of working on important questions, of being very rigorous and finding "real" not alternative facts, of both exploiting and exploring in your research, and of being part of a community.

I look forward to reading the interesting research that you will produce and hearing about your successes.

Congratulations and good luck!