Author & Innovator Alec Ross Speaks With Students About "Opening Opportunity to All"

Liz Torrey, Jan 13 2017

Author Alec Ross visited campus on Thursday, January 12 to speak to students and faculty at that day's School Meeting. Ross is the author of the New York Times bestselling book *Industries of the Future*, and served as Senior Advisor for Innovation to Hillary Clinton during her tenure as Secretary of State. Ross is also the co-founder of OneEconomy, a Washington, DC based nonprofit organization that works to connect low-income communities with access to technology and information resources.

Ross began his address by focusing on some of the ideas he lays out in *Industries of the Future*, and on how students can best prepare to enter the workforce of that future. He began by detailing and comparing our current economic epoch to others in the past—"Land was the raw material of the agricultural age; iron was the raw material of the industrial age; and data is the raw material of the information age," he said—then went on to describe what he thinks will be the twin trends of our next economic era: genetics technology and artificial intelligence. "The last billion dollar industry was built out of computer code," Ross predicted. "The next billion dollar industry will be built out of genetic code." He described various developing technologies in both fields, such as blood tests that can indicate the presence of disease at 1/100th of the level of current tests, or robots that use the cloud as a form of cognition.

The crux of his talk, however, asked students to consider how the technology of today and tomorrow can be used for a greater good, and how students might best equip themselves to enter the workforce in a rapidly shifting economy.

"Before I got all of these fancy things on my resume and in my bio, I had a couple of jobs that shaped who I am and my perspective on the world as much as being a social entrepreneur or working on a political campaign," Ross said, describing summer jobs working on a beer delivery truck and a midnight janitorial crew. "What I learned is that, whether you're from West Virginia or West Baltimore, there's very little that separates you, in terms of raw material, in terms of who you are, from the billionaires who own the private jets. Ability and talent are distributed universally. Opportunity is not. So how can we extend opportunity to the broadest number of people possible?"

Ross suggested a few paths of action for students. He urged them toward involvement in interdisciplinary studies, noting that "leaders of the future leaders of the future will need to have aptitude in understanding science and technology, but must also possess domain expertise in humanities." He cited as Mark Zuckerberg as an example, noting that it often goes unmentioned that Zuckerberg was a student of behavioral psychology as well as computer science. "Don't be afraid to be intellectually expeditionary and omnivorous," he continued. "It's within the application of one domain to another that real insight to another that real insight and innovation arises."

He also encouraged students to get involved in work that moves toward a more equal distribution of innovation and access to development resources between urban and rural areas of one's country, and work that supports the trademarks of an "open" rather than "closed" society. Such trademarks, as cited by Ross, include: upward economic and social mobility are not being constrained to a particular elite class; religious and cultural norms are not set by a central authority; and minority rights are respected by the majority. "I

don't think we're going to have a utopian or dystopian future," Ross said. "I think it's going to be somewhere in the middle, and our future will be about emphasizing that which is most human."

After his talk, Ross took many student questions, including:

- **In your work, do you see that social media is making it easier for terrorist organizations to communicate?** ("Social media has fostered extremism of all kinds—not just that related to Islam, but extremism of all forms. These tools give the power of distribution, and that can be used for good or for bad.")
- **How do you see the trends you describe as affecting the climate?** ("Absent leadership, all of these technologies will continue to degrade the environment, and your generation will have to fix this. We need to find out how we can create abundant, low-cost, clean energy.")
- **How can start-ups compete with these massive data collecting companies?** ("Five platforms harvest 90% of data, and what they're selling is, primarily, advertising. So sell something else. Figure out how to solve big problems. Reduce disease. Deliver better education.")
- **Should government regulate social media?** ("Social media can be used in really ugly ways, but I think it's better to have too much rather than too little expression. We have to fight for our rights, and we have to fight to *deserve* those rights.")
- **What is point of investing in AI if increased AI will result in humans losing jobs?** ("The people who want to make money off AI don't necessarily care about you, personally. How to stay ahead of the robots? You have to continually be a rigorous learner, even after school.")

Ross also sat and talked further with students and faculty in a smaller session for almost two hours after School Meeting.

The School community was connected with Ross through St. Andrew's science teacher Dr. Sara O'Connor, who mother is good friends with Ross's mother (both Ross and O'Connor were raised in Charleston, West Virginia). Dr. O'Connor's mother read *Industries of the Future* at Ross's mother's suggestion, and then went on to generously purchased copies of the book for all faculty and staff to read in anticipation of Ross's visit.