

Script to accompany academic leader pitch (TPSE Mountain Group Data Science webinar by Roxy Peck and Nicholas Horton, November 25, 2019)

N: How can you help to foster data science education initiatives at your campus. Roxy and I thought it might be helpful to do some role playing of a possible conversation between a faculty member (played by Nick) and an academic leader (played by Roxy).

R: We thought that this might be helpful in determining questions that might be relevant as data science education programs are created. Our goal is to try to model how to set up those conversations for success.

N: Why don't I get started. Provost Peck, I'm so appreciative that you are able to meet me today to talk about our new data science education initiatives. I've waited six months for these 15 minutes. Were you able to review the 20 page report that I shared late last night?

R: We're joking here but wanted to remind everyone that the best pitches don't start off this way.

N: As you know, there are a great many opportunities for students with a background in data science, both job opportunities and the potential to continue to graduate programs in data science. I'm excited by what has been happening at our institution and wanted to provide an update and give you the opportunity to ask some questions about our plans and proposals for the future.

R: I had a chance to read the one page executive summary that you sent me last week and I did have a few questions. What would you say is the biggest opportunity for your proposed new programs?

N: Data science programs are just getting started at many institutions like ours and there's an opportunity to be a regional leader in this area. We can connect with some of the local employers in our area and build new connections with our two year colleges to focus on workforce development.

R: We already have a statistics major and minor as well as similar programs in computer science. How is this different?

N: We imagine that there will be many kinds of data scientists needed in the workforce. Some will want to proceed with a deep technical degree (a major in data science or perhaps a double major in statistics and computer science). Others will want to undertake a program in, say, psychology, biology, or sociology and complete the equivalent of a minor in data science that gives them the skills to wrangle, analyze, and visualize data.

R: Sounds expensive: what's it going to cost?

N: I'm really excited that this isn't going to require a huge number of new positions. We have a number of faculty who are really excited about teaching new classes that build mathematical, statistical, and computational foundations of data science. Plus we have lots of other faculty across the campus in the sciences, social sciences, and digital humanities who are interested in developing new courses and programs for their students. The biggest need will be for faculty development support to allow many of us to retrain.

R: What else is needed?

N: Other efforts at larger institutions have often found that it's critical to create a shared space for these new programs to ensure that the program doesn't just get siloed in one department or program. So we'd like to brainstorm with you ways to identify and outfit a space to bring faculty, staff, and students together who are focused on our data science education programs.

R: How do these new programs fit within the mission of the university?

N: That's a great question. One of our goals for the data science initiative is to develop data literacy courses so that all of our students have some understanding of important issues about using data to make decisions as well as aspects of data ethics and privacy. In addition, we are working to develop multiple pathways to help students deepen their data acumen: the ability to make sense of the data around them. What could be more fundamental to our mission? Another part of our mission addresses diversity and equity, especially in STEM disciplines. Data science programs represent a new and emerging STEM discipline that is accessible to students with diverse backgrounds and interests.

R: What's the evidence for demand?

N: We're starting to see students matriculating with the goal of completing a degree in analytics or data science. The community colleges in our area are spinning up associates degree programs and their students are starting to transfer here. And pretty much all of our introductory courses that have "data" in the title have been swamped.

R: Well it does seem like this is something that we can explore further, and I will start to think about what resources can be provided. Can you work up a more formal budget request, and then maybe we can meet again in the coming weeks.