The NEU Report

EXECUTIVE SUMMARY

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Document #0

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Northeastern University, an institution that has separated itself from the pack and made its reputation by distilling trade knowledge and giving its students a leg up in industry has recently seen its focus shift to becoming more like the mainstream colleges it sought to differentiate itself from. Although the co-op program is fantastic, its existence is dangerous in that it obscures the truth. Just because the university has such a program doesn't mean it isn't losing its edge.

Additionally, the way universities think about and use education is changing. Online MOOCs, high bandwidth internet, and the prevalence of mobile phones is shaking up the way courses are taught, and even what it means to offer "the college experience". Now is the perfect time to start thinking about how to change how education is delivered. Now is also the most critical time, because the longer universities wait to adapt, the more of them will be left dead in the wake of progress. The numbers will only thin out from here.

In The State of Northeastern University, also known as Document #1, we discuss the benefits of moving away from research and back to practical, applied knowledge, while finding a niche to not just be excellent in, but world class in. We feel that computer security provides an excellent surface to consider. We also discuss the idea of building a one-of-a-kind interuniversity collaboration space with MIT's fabled Building 20 as the model. We also offer some ideas on what a new curriculum and university experience might look like in the future, and provide some evidence by evaluating projects, both in the commercial wild, and by professors at other universities.

The pervasive theme in Bringing CCIS to the Top, Document #2, is that of fundamentally re-evaluating what "computer science" is. We take a look at the history of the field, and look at where Northeastern, and more broadly, the generally accepted Computer Science curriculum gets its roots, and what the people who had a hand in growing those roots say about the field in the present day. We also discuss a few hypothetical courses, one in particular aimed at giving students a much more thorough understanding of mathematics than they most likely have ever been given, and to arm them with the tools to continue learning many years after they graduate. The document ends with the notion of what, exactly, makes a brilliant professor, and how to find them. In the process of doing this research, a new tool, Qualitizer, was created expressly for the purpose of doing better data collection and management. This tool is available at http://www.adaptiveplanningandexecution.com/qualitizer/

Finally, we include an analysis by Shim Vijay and Evin Yesudas, on the current state of commercial education platforms available, what they offer and how they differentiate themselves. The authors were recruited and vetted on an outsourcing website, www.freelancer.com, at the behest of Adaptive Planning and Execution for this report.

We hope that you'll find parts of this report interesting, and maybe even seriously consider some of the ideas presented within. We are greatly concerned with the future of the university, and, although we think that it is actually the best positioned to survive well into the future, significant change has to be made to take advantage of that potential. This report is our attempt to shed some light on the issue, and to be one of the building blocks for the future of Northeastern University.