Skunks.ai – Virtual Research Education

The "Elevator Pitch":

First, we teach and assess technical competence for research. Fewer than 20% of PhDs are academics. We then connect those who wish to learn research with those who are willing to mentor them.

Finally, we create online tools to make online research collaborations more effective.

Skunks.ai Abstract:

Online education has made great strides in the past decade in teaching technical skills and factual information. There are many excellent resources teaching subjects ranging from programming to calculus. However, teaching critical and scientific thinking is still limited to on-ground PhD and liberal arts degrees.

Skunks.ai has a model similar to many research PhDs but aims to make the process online, part-time and accessible to master's students, advanced undergraduates, working professionals. Research PhD programs typically have three components: 1) qualifying exams to assess technical competence 2) research publications and 3) a dissertation.

Skunks.ai is an educational research project to show that one can create an effective research and critical thinking education outside of the traditional PhD.

While it is very rare for universities to award online PhDs, our current focus is to teach research thinking and not focused on the credentialing process.

The first aspect, teaching and assessing technical competence we believe is generally currently well done online. Where there are gaps more technical learning materials and online assessments can be created along current models.

The research aspect is more difficult as teaching students how to do research has been proven most effectively taught in a Socratic manner. That is, typically with small groups, in a mentor-mentee relationship. However, most PhDs are not professors. According to the NSF, fewer than 20% of PhD graduates take academic jobs. Skunks.ai believes that online research education can be treated as a mentor-mentee matching problem, along with the creation of tools that help collaborative research.

Our discussions with companies indicate that technology is changing so quickly the ability to teach their highly technical people to adapt and create novel approaches to difficult problems is a crucial problem. Many companies would be willing to allow employees to spend 10% or 20% time to improve their employees research and critical thinking skills.

The philosophy of Skunks.ai is that many PhDs would be willing to act as mentors, if the potential apprentices were first vetted as having the technical skills to be able to effectively contribute to a given research topic. Further that the creation of tools that makes online research collaboration more effective increases the willingness of a research mentor to collaborate.

Skunks.ai creates online tools and educational materials to support vetting, connecting, and improving a mentor-mentee research relationship. There are currently over 350 Northeastern Skunks Masters students testing this model whether non-PhDs can to world class research.

Our initial results are that non-PhDs can do world-class research given a clear path and mentorship to develop their critical and research thinking. However, without guidance most students will get frustrated trying to research and go back to focusing on acquiring purely technical and vocational skills.

The http://skunks.ai/ site is currently under construction, but we hope to have enough to apply for grants in mid-Fall 2020.

Philosophy:

https://github.com/nikbearbrown/Skunks.ai

Skunks Vision:

AI Skunkworks ("the Skunks") envisions a platform where students can get opportunities to research in the Artificial Intelligence and Machine Learning domain. We are dedicated to supporting student researchers through content and guidelines to study and conduct research!

The aim is to teach Skunks effective research and critical thinking skills as well as to show that non-PhDs can do world-class research.

If this is your first time and you're interested in joining the Skunks, Sign Up today!
Register here: https://neu.campuslabs.com/engage/organization/tentative-ai-skunkworks-at-northeastern
 (NUID required*)

Check out our Projects: https://github.com/neuaiskunkworks

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If you are interested in Research, We are interested in you!!

For more details feel free to reach out to us on: skunkworksneu@gmail.com