

IDS 493 Reflection Essay

Eric M. Preston

Old Dominion University

IDS 493: Electronic Portfolio Project

Dr. Sherron Gordon-Phan

April 4, 2025

Abstract

This reflection paper is the culmination of my time at ODU, both in the classroom and multiple outside opportunities that have shaped me into the person I am today. Some of the most impactful experiences I've had during my time at ODU have been research-based projects that have forced me to be creative in how I approach different topics within the field of Cybersecurity, a part-time job that had pushed me out of my usual field and had me work through more creative tasks, and an internship that helped me to get used to group work and making changes outside of writing and supporting local companies. Not only will this reflection provide further insight into my thought process for those different experiences, but it will also be an additional complementary piece for my ePortfolio to show how each experience has been an impactful step in improving myself.

Introduction

An ePortfolio in this modern age is a critical tool for gaining a holistic perspective on any potential candidate for a job. A platform of this nature not only helps to show the different capabilities of a person but can present what is described as a “narrative identity,” a theory that shows a person’s life through stories or different experiences that have shaped who they are (Nguyen, 2013). Furthermore, ePortfolios show that there can be flexibility with how narrative identities form due to the nature of people’s differing experiences. According to McAdams (2001), people form narrative identities from their “life stories” that people develop over multiple periods of life to have a sense of purpose that is specifically evident during the early stages of adulthood. This leads to the range of stories that people can have, not only based on their individual factual experiences but also the cultural and psychological factors that change how people interpret things. Looking into additional research, this reflection would align with a positive redemption story from the perspective of a new blank slate (Smith, 2017).

Going back through the different changes and my growth in these almost three years has multiple requirements. First, it requires analyzing all of the most pertinent moments of that time that have pushed me to my limits. Next is reflecting on the work that forced me to rethink how I perceive my major and how I approach cybersecurity. Finally, I will look at the experiences that made me change how I go about working with others for a better understanding of the utility of my ePortfolio and reflection.

Freshman Year Skills

Starting with my freshman year, I started to learn about the depth that existed with cybersecurity, and through that, I picked up basic skills and goals that would help me in my later years. This includes learning to write in a university-level format, creating my outline for the

next few years of both my university and career life, and developing the ability to research effectively.

ENG 110C (English Composition) - Genetic Editing: A Ripple of Consequences

One of the first classes that I had to take was a writing composition class, it was the first to introduce me to a new form of academic writing. While there was flexibility with the papers there were still interesting restrictions that added a new form of challenge to how I wrote in general. The best example of this was the final paper, where you had to argue a position with research, and a topic I was interested in that had ties back to cybersecurity was the security dangers of genetic editing (West & Gronvall, 2020). While a field like biosecurity is not something that I have much interest in, I still enjoyed writing the paper and learned how to create the foundation of writing that I've been using to this very day.

CYSE 201S (Cybersecurity as a Social Science) - Career Paper

Another important course for me was a cybersecurity class on the field's social aspects. Some of the fields that can connect with cybersecurity include economics, law, politics, and many more (Cavelty, 2018). While there were constant journal entries that forced me to change how I felt about cybersecurity at the time, there was something beyond that that was more impactful for me. The project that I felt was the most beneficial was a career paper project that not only asked you to consider a career in cybersecurity that seemed interesting but also to provide additional reasoning for its utility as a position.

For me, I chose software development due to my interest in coding, and it was an engaging project for me because I had to have a mix of personalized writing for my points and support it with credible evidence to show the impact that the position can bring to multiple areas

of society. That paper played a role in my interest in the back-end side of cybersecurity today, and I still have an interest in a software development position in the future.

COVA CCI - The Lack of Black Female Diversity in the Cybersecurity Workforce

For the final significant project of my freshman year, I got the opportunity to participate in The Commonwealth Cybersecurity Initiative of Coastal Virginia (COVA CCI) Undergraduate Research Program, an annual program where students submit a proposal and work with a mentor over a semester to develop a cybersecurity paper and presentation that would be presented to an audience of family members, professionals, and other participants. This was a great experience for me as it was what I consider to be my first big step into doing research. While it was a bit stressful to have to work on it across the semester while juggling everything else I had going on at the time, my mentor, Professor Gladden, was a strong support pillar in helping me to continuously improve on my work and get through to the end.

The presentation itself was relieving to finally show all the information I found on a topic that was personally connected to me as an Afro-Kenyan. Another thing I learned from this experience was how much societal factors can play a role in any field, even something as abstract as cybersecurity, which seems like it would be devoid of something like that.

Sophomore Year Skills

Moving into my sophomore year, I perceived different aspects of cybersecurity, and my ability to get creative with different objectives was pushed much more this year. The skills I gained from this period were the ability to critically and philosophically argue different positions within multiple cybersecurity topics, understand the cybersecurity obstacles related to the elderly, and get used to working with creative projects as opposed to technical ones.

PHIL 355E (Cybersecurity Ethics) - Whistleblowing Case Analysis

My PHIL 355E course focused on cybersecurity ethics, and I think back to it often due to how it changed my philosophical view on cybersecurity multiple times. One of the biggest takeaways from this course was that I now view whistleblowing as a last resort for an organization's ethical practices, but still, one that should always remain prominent due to its showing of loyalty. This perspective comes from one of the many case studies that had to be done on different real ethical situations. This paper was on the whistleblower Chelsea Manning and the leaking of a video with soldiers in Baghdad (Christensen, 2014). My feelings on the paper were generally that of strain from not only using philosopher studies to argue my point but also interweaving everything in a way that made the paper questionable in its position. It was hard, but for me, it was a genuinely enlightening experience on how to think about cybersecurity.

CYSE 280 (Windows System Management and Security) - The Critical Benefits of Teaching Senior Citizens About Microsoft Windows and Cybersecurity

A project that helped me to better understand how people look at cybersecurity came from my CYSE 280 class. While the focus of this class was on going through small exercises to understand and work with Windows Server 2019 and virtual machines, the writing project offered a unique angle in integrating Windows System Management as well as cybersecurity to shine a light on a disregarded area of both. The topic I chose was the lack of cybersecurity support for the elderly due to that group being one of the largest to be hit with cybercrime (Judges et al., 2017). This led to me learning about the different processes of understanding information for the elderly that make them so susceptible, and it was a learning experience that made me have a newfound sympathy for them. It taught me that to convey the information I know to other groups that have little knowledge of cybersecurity, I need to account for the way they take in information to help them understand what I'm saying.

The Center for Bioelectronics - Federal Work Study Summer Facilitator Posts

My final experience for my junior year got me out of my comfort zone and gave me a sample of what my future would look like with my first on-campus part-time job. I got to do some federal work-study and was in charge of creating advertising for the last few months of my spring semester and into the summer. My primary role took the form of making captivating flyers and social media posts for the upcoming events which was a new challenge I welcomed. I learned how to write from a marketing perspective as well as learn how that department of an organization functions, which was an informative experience. Furthermore, being someone who enjoys doing creative-focused projects, I felt enthusiastic about coming to work each day, considering how the majority of the work I was doing at the time was technical writing.

Junior Year Skills

While my junior year is still ongoing, I've gained something from the notable experiences of last semester. A sum-up of my new skills includes properly working with multiple operating systems to crack passwords, applying an interdisciplinary approach to cybersecurity topics to better understand them, and learning how to apply my research in the form of a cybersecurity framework.

CYSE 301 (Cybersecurity Techniques and Operation) - Password Cracking in Linux and Windows

My CYSE 301 course was the first to introduce me to the depths of Kali Linux, and while I have worked with Linux in past courses, it was with Ubuntu, a less cybersecurity-focused version of the operating system, so there was a bit of a learning curve for me, but it was alright for me. What I feel was the biggest challenge in that class was an assignment utilizing multiple versions of Kali Linux, a Microsoft Windows virtual machine open within Kali Linux, and

different password-cracking tools to crack our own created passwords for the assignment. This was a tough assignment for me with the amount of things I had to keep track of and make sure that everything was working as intended, and I'm proud of my capability to get through it. While it was difficult for me, I can only imagine how different things are in the workforce, but this still was an assignment and course that was beneficial in teaching me how to use Kali Linux in the future.

IDS 300W (Interdisciplinary Theory and Concepts) - An Interdisciplinary Understanding of the Human Factor of Cybersecurity

Throughout my IDS 300W course, the lesson that was hammered home the most was breaking things down and integrating multiple topics equally into each other to lead to a new conclusion. This culminated in my final paper, which touched on the human factor of cybersecurity, a topic of how people are the weakest link in improving cybersecurity, and how fields like sociology and psychology are some of the many other fields that play into this dilemma (Pollini et al., 2021). Writing out this paper was pretty tough for me, as it required me to not only look at unfamiliar fields but also create a new conclusion that can only exist due to the integration of those three fields. However, by the end of it, I came away with a new methodology for cybersecurity situations, as well as a new perspective on the human factor of cybersecurity. It both reinforced and added to an idea that I was taught about cybersecurity in my earlier years at ODU, that the field isn't just technological, and it requires looking at many other fields that seem far-removed but, in actuality, provide new perspectives for new solutions.

Reflection Journals from the COVA CCI Cybersecurity Internship Clinic

My journals are also reflective of gaining new perspectives, as they highlight my changing feelings throughout my first internship. For this program, I was assigned with two

teammates. There were two halves: one was going out to assess local companies for their cybersecurity posture, and the other was creating a risk management framework for an entertainment company that had very few security procedures. Both halves pushed me in different ways and helped me to gain different perspectives on the local level of cybersecurity. For the assessment, I had to collaborate with my team to devise a map to hit the most locations within a set timeframe and be able to present an image of ourselves that was professional. I didn't feel like it was the most complicated task, but it was still challenging to be able to pull it all together, and it showed me how little cybersecurity is considered by most businesses at this level because of a lack of funds (Afolabi, 2024).

The other half was much more difficult, as it required our group to develop something we'd never done before: creating a professional framework for a company. There were a lot of bumps in the road that pushed me mentally with what was being asked, but learning to work with my teammates was the most effective way to get things done and by the end, I had a lot of respect for them, and was also happy with the final product, as it felt that we made a big difference in something.

Conclusion

These experiences through the past few years have been instrumental in how I've changed up to this point in my life. My freshman year created the foundation for how I write today, established the career outline I've had up until this point, and provided me an opportunity to research a topic that combines part of my identity with a prevalent issue in cybersecurity. My sophomore year changed and added to my perspective on cybersecurity topics ethically. I also gained a new understanding of how different groups of people perceive cybersecurity compared to me, and I got an opportunity to work on projects that were outside of my average form of

work, which was a welcome change for a challenge. The first half of my junior year gave me more access to challenging technical projects that taught me how to use operating systems. I also developed a new methodology for looking at cybersecurity problems and learned how to better collaborate with teammates to create a framework for a local company. With my future time at ODU, I do have an idea about paths in the form of an internship I have set for the summer, but in this next year before I graduate, I look forward to all the possible experiences that will continue to help me in growing into the chapter of my workforce career.

References

- Afolabi, G. J. (2024, May 6). *Cybersecurity Challenges and Solutions for Small Businesses*. ResearchGate.
https://www.researchgate.net/publication/380360965_Cybersecurity_Challenges_and_Solutions_for_Small_Businesses
- Cavelty, M. D. (2018). Cybersecurity Research Meets Science and Technology Studies. *Politics and Governance*, 6(2), 22–30.
<https://www.cogitatiopress.com/politicsandgovernance/article/view/1385/802>
- Christensen, C. (2014). WikiLeaks and the Afterlife of Collateral Murder. *International Journal of Communication*, 8, 2593–2602. <https://www.diva-portal.org/smash/record.jsf?dswid=6081&pid=diva2%3A755885>
- Emily Esfahani Smith. (2017, January 12). *The two kinds of stories we tell about ourselves*. Ideas.ted.com; ideas.ted.com. <https://ideas.ted.com/the-two-kinds-of-stories-we-tell-about-ourselves/>
- Fowles Nguyen, C. (2013). The ePortfolio as a Living Portal: A Medium for Student Learning, Identity, and Assessment. *International Journal of EPortfolio* 2013, 3(2), 135–148.
<https://www.theijep.com/pdf/IJEP116.pdf>
- Judges, R. A., Gallant, S. N., Yang, L., & Lee, K. (2017). The Role of Cognition, Personality, and Trust in Fraud Victimization in Older Adults. *Frontiers in Psychology*, 8.
<https://doi.org/10.3389/fpsyg.2017.00588>
- McAdams, D. P. (2001). The Psychology of Life Stories. *Review of General Psychology*, 5(2), 100–122. <https://doi.org/10.1037/1089-2680.5.2.100>

Pollini, A., Callari, T. C., Tedeschi, A., Ruscio, D., Save, L., Chiarugi, F., & Guerri, D. (2021).

Leveraging human factors in cybersecurity: an integrated methodological approach.

Cognition, Technology & Work, 24(2). <https://doi.org/10.1007/s10111-021-00683-y>

West, R. M., & Gronvall, G. K. (2020). CRISPR Cautions: Biosecurity Implications of Gene

Editing. *Perspectives in Biology and Medicine*, 63(1), 73–92.

<https://doi.org/10.1353/pbm.2020.0006>