Midterm

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Abstract

This paper is designed to answer the questions presented in the week 7 midterm assignment. It is structured such that each part addresses a different question. Part 1 researches various different certifications, evaluating them on their efficacy in addressing their designated purpose, as defined by the organizations that administer the certifications. Part 2 explores the social importance of a university degree, using research from 2024. As there is only three months of data to go over here, the information is unfortunately also not strictly from academic journals or other rigorously peer reviewed sources. Finally, part 3 examines five different terms related to ethical nefarious actions and weighing their ethical impacts.

Midterm – Part 1

This section of the assignment will look at five different certifications, analyzing their effectiveness in their respective fields morally, ethically, educationally, technically, or socially. The five different certifications we will discuss are the Adobe Certified Professional (ACP) certifications, Cisco’s CCNA certification, CompTIA’s Security+ certification, the Certified Nursing Assistant (CNA) certification, and the Red Cross’s CPR certifications.

First, we will look at ACP certifications. These certifications are relevant to me because I got ten of them while I was in high school, so I can speak firsthand to the work that went into obtaining them. Adobe offers these certifications for every one of their programs separately (i.e. ACP in Photoshop, ACP in Premiere Pro, etc), as well as specialty combination certifications awarded for achieving specific combinations of certifications (i.e. ACP in Video Design for obtaining ACP Premiere Pro and either ACP Photoshop or ACP After Effects). Adobe claims that all its certifications are “industry-recognized” and “demonstrate mastery of Adobe Creative Cloud software and foundational knowledge for digital media careers” (Adobe, 2023). Most importantly, however, is Adobe expecting candidates to have 150 hours of instruction and hands-on experience before earning the certification (Adobe, 2023).

Speaking from experience, I only ever got 60 hours in each program before taking and (comfortably) passing each exam. I personally feel that the skills required for exams are not reflective of creative work equal to the industry standard. Test questions are largely a matter of successfully recalling where certain options are listed in a sea of sub-menus, as opposed to actual creative work that may be more appropriate to expertise. They are not meant to demonstrate mastery of Adobe software but are more geared towards basic competency of the associated program.

Shifting gears, we now examine Cisco’s CCNA certification. It is marketed as an entry level certification that serves as a stepping stone to more difficult and prestigious certifications, like the CCNP or CCIE (Cisco, 2024). The exam covers topics like network fundamentals, network access, IP connectivity, IP services, security fundamentals, and automation and programmability (Cisco, 2024). The certification expires after 3 years but can be renewed with a pass on a qualifying exam or 30 credits of continuing education (Cisco, 2024).

As far as the validity of this certification is concerned, it seems to be much more appropriate than the ACP certifications. Because it is poised as an entry-level certification, it is okay if it is less rigorous than other exams. In addition, the renewal requirements are such that the individual is continuously learning or working to a more advanced certification, leading to an ever smarter work force. The only real ethical concern worth noting is that the exam is tailored to Cisco solutions and Cisco’s proprietary equipment, which can lead to Cisco monopolizing the IT sector even more than they already are by making such a widely accepted certification so specialized to their company.

Security+ is a certification offered by the non-profit organization CompTIA. It assesses a candidate’s baseline skills necessary to perform core security functions as it pertains to enterprises, hybrid environments (i.e. cloud, mobile, IoT), applicable regulations and policies, and security events and incidents, paralleling Cisco’s CCNA certification (CompTIA, 2023). Because the exam goes over general concepts (as opposed to the CCNA dealing strictly with Cisco implementations), the certification is vendor neutral, attracting employers that are not exclusively using Cisco solutions. This also addresses the ethical concern brought up with Cisco potentially monopolizing the industry. Again, as it is designed to be an entry-level certification, the rigor of such a test is not important.

Security+ looks to be a good way for individuals to get their foot in the door if they want to work in IT but is probably inadequate for more senior level positions.

Next up is the Certified Nursing Assistant (CNA) certification. CNAs are responsible for various tasks around a clinic/hospital, including checking and charting a patient’s vitals, bathing, feeding, and dressing patients, and dressing wounds (Brusie, 2023). This certification is earned by completing a state-approved training program (Brusie, 2023). CNA certifications must be renewed every two years, either through maintaining employment or passing a competency exam (Brusie, 2023).

While this is certainly a more entry level certification, there are some ethical concerns raised when certification requirements vary from state to state with a role as proximal to so much PHI. Imagine a scenario where a patient in a state with lax CNA testing restrictions experiences malpractice. Who is to say that the offending CNA would have made the same mistake had they been trained in a stricter state? The implication that someone can be harmed in such a dramatic way because of varying certification requirements directly jeopardizes the legitimacy of such a certification.

Finally, we consider the Red Cross’s CPR certification. This is another certification that I earned three years ago in high school. Our class had an hour-long presentation where we listened to an instructor for 45 minutes, then performed CPR on a dummy, completing our certification. As far as I am aware, these certifications never expire, so I am still CPR certified. This is a problem because I do not remember a thing from that training except to pump the chest to the beat of “Stayin Alive” by the Bee Gees. The ethical issue here should be obvious. Certifications for things as equally life-saving as they are life-endangering should not have such lax requirements, and they definitely should expire rather quickly if they do.

How likely is it that someone CPR certified sees someone in need of assistance, but forgets how to correctly help, and ends up harming the individual more than they could have helped? Is it even morally acceptable to allow such a person to administer CPR and risk detrimental damage to the receiver (especially a receiver who likely can’t consent)?

This section has examined five different certifications: ACPs, CCNA, Sec+, CNA, and CPR. Out of all five, Sec+ is the most universally sound, with the other four having some sort of issue. These range from educational to business-related to ethical. Certifications by their nature need to be strictly regulated and thoughtfully employed to be effective, and it appears that many miss the mark in one way or another.

Part 2

This section of the paper will discuss the place that my degree sits in my personal life. For reference, I fit the WEIRD (Western, Educated, Industrialized, Rich, Democratic) acronym almost to a tee. As a direct result of this, the importance of my B.S. of Computer Science degree may differ both in rationale and in magnitude from someone, say, in India trying to provide for their large family. This paper will also examine the role of a university degree societally and look at how organizations and individuals value university education.

As touched on above, I come from a relatively well-off white family, so I am keenly aware that I have significantly fewer barriers to college education than most other demographics. As such, my degree represents 4 years of focused, meticulous education, and an opportunity to get into a better paying job than if I didn’t have such an education. To my parents, it represents them successfully raising their first child and shaping him into a self-sufficient adult, as well as a testament to their ability to provide for their kids.

Societally, a degree typically signifies a few things. Primarily, it reflects a certain level of knowledge and work ethic in the holder. These two traits are what open the most doors for people. Employers that see someone with a degree who may not be fully qualified for a job know that they would likely be willing and able to get any necessary training. In addition, the typically specialized knowledge that degree holders have put them in unique positions to compete against a smaller applicant base for technical jobs, which usually pay significantly more than jobs that do not require a degree. In this way, a degree has become synonymous with wealth through a high paying career, at least in some capacity.

As for the less tangible benefits of higher education, college socializes individuals in a way that leads to having greater job satisfaction, being four times less likely to smoke, being significantly more likely to exercise, wear a seatbelt, maintain a healthy weight, and regularly see a doctor (Orrell & Veldran, 2024). In addition, college provides individuals with a vast social network, which has implications ranging from lower unemployment rates to lower divorce rates (Orrell & Veldran, 2024).

However, the American public seems to be losing their faith in the value of higher education in recent times. A survey reviewed by Jessica Blake found that among common reasons that degrees are valuable (such as to make more money or to train for a career), both high-schoolers and non-enrolled adults alike have lost up to six percent confidence in these benefits from 2022 to 2023 alone (2024). The study also found that the main reasons why potential students do not pursue higher education is the fear of taking on debt, a lack of interest in schooling, perceived insufficient ROI, and uncertainty about the future (Blake, 2024). Finally, American society has also grown to place more value on certificates (65% confidence), as opposed to degrees (51% confidence) as it pertains to getting a “good job” (Blake, 2024).

As it stands, the traditional value of college degrees appear to be an aging relic of the American Dream, at least in the public’s current view. While they still symbolize knowledge and hard work and a good paying job, and definitely lead to many benefits outside of the workplace, the cost benefit analysis of an increasingly expensive degree is leading many to reconsider the value of a traditional degree, and instead turn to alternative sources of education, such as trade schools or certificate programs.

Part 3

The last section of this paper focuses on various topics that relate to ethically nefarious actions. Namely the weaponization of information, information silos, gas lighting, cat fishing, and alternative facts. Discussions will cite relevant, scholarly articles to parallel discussions in class. First, we turn to the weaponization of information.

Information weaponization is just what it sounds like. It is injecting misinformation, deliberately biased reporting, cover-ups, fabricated information, and any other means of tampering with the flow of information in an area for some ulterior motive (Tan, 2023). This ulterior motive is typically to improve the public image of the attacker, while sowing doubt and distrust in anyone that they disagree with (especially politically). Real world examples of information warfare can be found in the 2016 presidential elections, where American allegations of Russian hackers interfering with election results sowed distrust across the country in not only the security of the voting system, but also the professionalism of presidential candidates that did not handle the situation appropriately. Furthermore, this effect was exacerbated in the 2020 election when presidential candidate Trump filed for election contests in 10 states (Stanford-MIT, 2021).

While none of these contests resulted in changed election results, they did continue to paint Trump as a sore loser, even four years after any accusations of Russian information warfare.

Information silos refer to a stockpile of certain information or perspectives that only a certain demographic of people have access to. For example, librarians have an information silo on information literacy, and nurses have an information silo on helping the sick (Miller et al., 2010). By critically examining each information silo, nurses and health science librarians can collaborate in a way that led to sharply increased media literacy skills in nurses and allows librarians to point to more effective and current resources in matters of healthcare (Miller et al., 2010). Unfortunately, information silos are not typically used to foster deeper understanding of various expertise, but rather to polarize and divide audiences in social media. Intuitively, by the algorithmic nature of social media, users are typically placed into information silos (more commonly called echo chambers in this context) based on their interests and are usually surrounded by others in their echo chamber. Without proper room for collaboration across interests, the inverse effect of the nursing example can occur. Groups will not have proper access to useful information outside of their silo, which can be potentially ethically dangerous, when the second and third order effects of not having, say, sufficient media literacy skills, are considered.

Gaslighting is defined by Hailes and Goodman as “a form of psychological abuse that targets a survivor’s sense of trust in their own knowing abilities” (2023). Gaslighting is most typically conceptualized in the context of an abusive spouse chronically lying to their partner to make them question their sanity, but gaslighting can also occur in other domains, such as in the family or a social circle. Immediately, this behavior should be flagged as unethical because it completely disregards Kant’s principle to treat all people as ends, and not just a means to an end.

In addition, subjecting someone to gaslighting can leave them doubting their own knowing abilities for a substantial length of time, which is clearly unnecessarily detrimental to that person’s quality of life and thus unethical (Hailes and Goodman, 2023).

Catfishing is the act of tricking someone into a relationship by posing as someone you are not online. The term was largely credited to MTV’s “Catfish” and popularized by Notre Dame linebacker Manti Te’o’s firsthand experience being catfished (Derzakarian, 2019). Derzakarian provides a comprehensive view of catfishing, including passed legislature to combat it in Oklahoma and California, as well as attacks closely related to catfishing, such as cyberbullying, revenge porn, and online impersonation (2019). Ethically, catfishing can be very dangerous. In the case of Te’o’, the woman he thought he was talking to was “killed off” by the catfisher, causing significant emotional strife (Derzakarian, 2019). In addition, the woman whose photographs were used could file for legal protection under a false light invasion of privacy claim, since obvious falsities, some potentially able to defame her character, were made about her.

Finally, alternative facts, up until January 2017, was not a term that existed. It is the result of presidential advisor Kellyanne Conway using the phrase in a Meet the Press Interview as she defended press secretary Sean Spicer for offering falsehoods as fact (Bradner, 2017). Many sources, including New York Times executive editor Jill Abramson, have described the phrase as “Orwellian” (2017). Quite obviously, calling verifiable falsehoods “alternative facts” is dangerous for many reasons. First and foremost, the phrase functions to perpetuate misinformation, which is very difficult to justify. In addition, the fact that the phrase was originally used by someone holding a position of public office calls into question the legitimacy and trustworthiness of the government.

Conclusion

This paper covered various topics. It began by discussing the legitimacy of five different certifications: ACPs, the CCNA, Sec+, CNA, and CPR certifications. Sec+ was found to be the most ethically sound. Then, it examined the importance of college degrees in my personal life, as well as socially. It is found that degrees typically represent knowledge, work ethic, and wealth, but the American public is gradually losing faith in degrees in favor of specialized certifications instead. Finally, it looked at various terms relating to ethically nefarious actions, such as gaslighting and catfishing. All five topics discussed present various ethical issues and are generally not beneficial for the public at large.

References

Adobe. (2023). *Learn how to get Adobe Certified*. Adobe Certified Professional. <https://certifiedprofessional.adobe.com/en/get-started>

Abramson, J. (2017, January 24). *Sorry, Kellyanne Conway. “alternative facts” are just lies | Jill Abramson*. The Guardian. <https://www.theguardian.com/commentisfree/2017/jan/23/kellyanne-conway-alternative-facts-lies>

Blake, J. (2024, March 13). *Doubts about value are deterring college enrollment*. Inside Higher Ed | Higher Education News, Events and Jobs. <https://www.insidehighered.com/news/students/retention/2024/03/13/doubts-about-value-are-deterring-college-enrollment>

Bradner, E. (2017, January 23). *Conway: Trump White House offered “alternative facts” on crowd size | CNN politics*. CNN. <https://www.cnn.com/2017/01/22/politics/kellyanne-conway-alternative-facts/index.html>

Brusie, C., & Nurse.org Staff. (2023, August 14). *How to become a Certified Nursing assistant (CNA)*. Nurse.org. <https://nurse.org/resources/certified-nursing-assistant-cna/>

Cisco. (2024, March 12). *Certifications - Training & Certifications*. <https://www.cisco.com/c/en/us/training-events/training-certifications/certifications.html>

CompTIA. (2023). *Security+ (plus) certification: Comptia It Certifications*. <https://www.comptia.org/certifications/security>

Derzakarian, A. (2019). The Dark Side of Social Media Romance: Civil Recourse for Catfish Victims. *Loyola of Los Angeles Law Review*, *50*(4), 741–764.

Hailes, H. P., & Goodman, L. A. (2023, October 5). *“they’re out to take away your sanity”: A qualitative investigation of gaslighting in intimate partner Violence - Journal of Family Violence*. SpringerLink. <https://link.springer.com/article/10.1007/s10896-023-00652-1>

Miller LC, Jones BB, Graves RS, & Sievert MC. (2010). Merging silos: collaborating for information literacy. *Journal of Continuing Education in Nursing*, *41*(6), 267–272. <https://doi.org/10.3928/00220124-20100401-03>

Orrell, B., & Veldran, D. (2024, January). *AEI*. Perspectives on Opportunity. <https://www.aei.org/wp-content/uploads/2024/01/The-Value-of-a-Bachelors-Degree-3.pdf?x91208>

Stanford-MIT. (2021, March 10). *Vote recounts and election contests in Battleground States*. Stanford-MIT Healthy Elections Project. <https://web.mit.edu/healthyelections/www/final-reports/recounts-election-contests.html>

Tan, E.-W., & Sayankina, S. (2023). Cyberwarfare and the Weaponization of Information in US–China 21st-Century Geostrategic Rivalry. *Pacific Focus*, *38*(2), 180-209–209. <https://doi.org/10.1111/pafo.12233>