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*“On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for STS papers.”*

### **GVV: Fighting the “Adpocalypse”**

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#### **Information**

Basis: This case is entirely fictional and not based on real events.

Field of Engineering: Computer Science

Technology Discussed: Software Engineering/Design, Web Design, Web Accessibility, Advertising in Software, Social Engineering, Search Engine Optimization

Relevant Readings:

[Advertising on the Web](#)

[ADA Guidance on Web Accessibility](#)

[Advertisement Accessibility Study](#)

[Search Engine Optimization \(SEO\) Guide from Google](#)

[Manipulative Online Advertising](#)

[SEO Manipulation Discussion](#)

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## Introductory Narrative

Daniel is a senior software engineer working for a medium-sized news media corporation called the Washington Tribune, based out of D.C. Daniel has been working there for about 10 years now and is quite comfortable in his job, being well-respected by his peers. He is the team leader of the online media division and oversees a group of approximately ten junior and senior software developers. His team is tasked with overseeing the Washington Tribune's website and ensuring that all articles are available online to subscribers (with some articles being available to non-paying customers). His team designs the look of the website and has the important task of ensuring it is easy to use and navigate for all users.

Recently, the Washington Tribune has been falling into hard times. The decline of subscribers to old-fashioned news media has seriously hurt the company's financial stability. Alternative forms of news such as social media have been rapidly deteriorating the Tribune's market share. As a public company, shareholders of the Tribune are tired of losing value, and are now demanding the company's CEO, Sarah, take action to restore profitability by the next quarter, and give a presentation on how she will do so within five days. Sarah recognizes that online news media has become an increasingly popular way of consuming the news and sees great possibility for profitability by leveraging the website.

After doing some research, Sarah realizes that the web team can exploit some features of web design to bring in considerable profits. The Tribune has connections with many advertising firms who have many clients desperate to get their new products to be known about. She first sends an email to Daniel, instructing him to direct his team to massively increase the number of advertisements on the website, especially for free users. She requests that pop-up ads be displayed as often as possible, as well as banner ads across the top and bottom of the screen, and that at least half of each screen be covered in ads. The more ads, the more profit from advertisers, she figures.

Secondly, in the email she requests that Daniel lead his team in making the website to be as visible as possible to online users as possible, using any means necessary. She especially wants his team to manipulate Search Engine Optimization (SEO) algorithms by inserting false data about article content into a website's meta tags, which she read about online. Unfortunately, Daniel was on a cruise, unable to receive the email for one week. Usually, she would wait for

Daniel's technical expertise on online matters. However, she needed to give her plan to the shareholders, and they resoundingly approved of the plan due to the profitability that was possible. When Daniel gets back, he is shocked at his new orders and requests an immediate meeting with Sarah.

## **Ethical Dilemma**

Daniel has major concerns with Sarah's plan for the website, and he tells her about them in a meeting as soon as he gets back. First, the bombardment of ads onto the website will make the page unreadable for anyone who requires web accessibility tools such as screen readers. The page will only be accessible to those who are able to maintain a good focus onto the content of the website and will disqualify many individuals from accessing the news. He is also especially concerned with the content of many of these ads. Many of the companies wishing to advertise on their site sell products that seem poorly made, flimsy, and suspicious.

Second, the manipulation of search engine results with SEO malpractice will cause many visitors looking for the news online to go to articles they did not want to read in the first place. Daniel believes these two policies will not only hurt the website's accessibility and manipulate visitors but also damage the Washington Tribune's credibility as a reliable news source. While nothing being done is illegal, Daniel generally believes these tactics are unethical, poorly thought out, and will hurt both the users and the newspaper. As lead software engineer, he offers his professional advice to avoid adding ads and manipulating search results.

Unfortunately for Daniel, Sarah reports that even though she trusts him, there is nothing that can be done at this point. Since the board of shareholders have already approved her plan, he is required by company policy to follow the board's instructions to begin implementing the plan, or he will lose his job. She says that she regrets presenting the plan without his approval as software engineer, but her hands were tied and are tied even more now. The board is not scheduled to meet again for another business quarter (three months) unless an emergency meeting is called. Thus, Sarah gives Daniel the unfortunate order: work on her and the board's plan for the website, somehow get the board back together to change their minds, or quit his long-time job.

On the way home from work, Daniel begins considering his options. Of course, he does not want to lose his job where he has been working for ten years. However, he takes the following of online and Internet guidelines very seriously and does not wish to manipulate search results or hurt his website's accessibility and credibility. He could try to work with Sarah to call an emergency meeting of the board, which could be difficult but possible if enough members show up. He could also try to stall for three months, making minimal progress on the plan for the website, but enough to technically follow company policy. What would you do if you were Daniel?

## **Epilogue**

Daniel realizes he has four main paths, as outlined above. He can either quit and avoid the dilemma entirely, try to call for an emergency meeting of the board, stall on the plan and work as slowly as possible until the next board meeting, or just avoid thinking about the dilemma and work on it at a normal pace. The two extreme options, quitting the company and working anyways, are not consistent with Daniel's morals. He does not want to quit because he knows if he quits, the rest of the team will work on the project anyways. He wants this to be stopped so the Tribune stays well-respected. He also does not want to do nothing and work anyways, as that would violate his ethical standards as a professional.

Thus, he believes his two best options involve convincing the board to change their minds. However, he is not sure that the shareholders will change course, even if he and Sarah both tell them that it is a bad idea. The board of shareholders is known for sticking with their decisions and thinking in the short term. Regardless, he thinks the best plan is to eventually meet with the shareholders. He cannot talk to Sarah about his plan to work as slowly as possible over the next three months, because as CEO she would disapprove heavily of this and likely fire him. However, she does not have a good understanding of software development lifecycle timing, so he could lie to her and say the transition to execute the plan would take longer than it will. He could also try to work with her to call an emergency meeting of the board now, although the board would be unhappy and would be less likely to agree to change the plan.

Once he meets with the board, he has multiple ways he could appeal to the board. He could try to talk to them about the ethical implications of search engine manipulation and manipulative ads, although he is not sure this would go very well with the profit-focused shareholders. If he faces rationalizations from the board that tell him he must follow orders, regardless of ethical principles, he could then shift to a profit-based argument. He could argue that the damage to the Tribune's reputation as a well-respected newspaper would out way any short-term monetary gains by running more ads and increasing short-term visitors. This argument would be much more likely to succeed and would likely face fewer rationalizations from the board. If he could get Sarah on board and have her argue in his favor as well, it would be even more likely to succeed.

However, there is always the possibility, for one reason or another, that the board refuses to change course, and forces Daniel and the team to continue implementing the plan. In this scenario, Daniel will be left with the two original options: work on it anyways or quit. Since nothing he is being asked to do is illegal, there is not much he can do legally, like reporting the situation. Similarly, not many people are likely to care enough if he whistleblows about the company's unethical behavior. If the board refuses to hear his case, there are not many great options Daniel could take. Fortunately, given the circumstances it seems likely the shareholders would change their minds.