Ethics case study D - Developing an Internet Constellation

Summary

After years of working your way up the corporate ladder, you are now Head of Engineering for a tech start-up. The company has won a contract connected to a project creating a constellation of thousands of low Earth orbit satellites. This constellation has the potential to create a reliable system of internet access for areas of the world that are hard to reach by conventional infrastructure. Your company is one of those chosen to develop and build a low-cost, lightweight, efficient satellite that can be produced at scale. This is a huge accomplishment for you, as well as for your company.

Dilemma

A conference that brings together various project partners is met by protesters whose message is that the internet constellation has several potential negative impacts for nature and human communities. Disparaging comments have been made about your company's participation in the project on social media. Some members of your team seem quite rattled by the protests, and you convene at a coffee shop to discuss.

You remind and explain to your team members that they, and the company, have a duty to the client. Everyone has been hired to deliver a specific project and been excited about overcoming the technical challenges to ensure the project's success. The team agrees, but also expresses concern about aspects that aren't in the project remit, such as how the satellite will be maintained and what will happen to it at the end of its life. They demand that you pause your work until an ethical review is conducted.

You report all of this to the CEO, who reacts with disappointment and unhappiness at your team's actions. She argues that the only thing your company is doing is building the satellite: it's not your responsibility what happens to it afterwards. She feels that it's your job to get your team back in line and on task. How do you approach this situation?

Discussion points

How do you respond to this situation? What responsibilities do you have to your team, your boss, and the client? How will you balance these? Are the team's engineers right to be concerned about the impact of their satellite within the wider constellation, or is it beyond their scope?

While nature cannot speak for itself, if it could, what might be its position on the internet constellation? What aspects of the natural world might be affected by this technology in both the short- and long-term? For example, are there any direct or indirect effects on the health of humans and the ecosystems around them? Should the natural world of space be treated the same way as the natural world on earth?

Who should make decisions about projects that affect nature on a global scale? What laws or regulations exist that govern internet constellations?

Do we have obligations to future generations? Is it possible to have a moral contract with a person that may never be born? How do we know that people in the future, will value the same things we do now? Both creating the internet constellation and preventing its implementation seem to potentially benefit future generations. How do we balance these 'goods' and make a decision on how to proceed? Who gets to decide?

Further reading

This case study was adapted from the UK Engineering Professors Council Engineering Ethics Toolkit. You can find further resources regarding this case study on their website.