CHAPTER FOUR

Values:

The Pandora Project

This chapter focuses on the values of professional practices: on how thinking and working like a professional means caring about the things a professional cares about—and thus how learning to think like a professional means learning to value the things professionals think of as important, interesting, and meaningful.

The chapter begins by looking at *The Pandora Project*, an epistemic game I developed with a team of researchers at Harvard University, including Kris Scopinich, Chris Braiotta, and Victoria Martins. In the game, players become high-powered negotiators, deciding the fate of a new biomedical breakthrough. Along the way, they learn about biology, international relations, and mediation.

The game is based on a real medical controversy: the ethics of transplanting organs from animals into humans. After a brief overview of science of xenotransplantation, the chapter describes a study of what happened when a class of high school students played the game. The study shows how this epistemic game motivated adolescents to develop the kind of skills, knowledge, and values they need to succeed in the digital age.
Of Pigs and Men

X-Gen is a leading global pharmaceutical company with world headquarters in the Republic of Swindonia. Researchers at the company have been working for over a decade to make it possible to transplant organs from one species to another—a technique known as xenotransplantation. Yesterday, X-Gen’s scientists announced that they are ready to begin clinical trials on humans at their research center in the capital city of Hoggopolis.

Their announcement created a firestorm within the scientific and medical community. Proponents argue that xenotransplantation might end the shortage of organs for patients suffering from late-stage organ failure who need transplants to survive. Opponents say there are too many potential problems associated with taking organs from one species—X-Gen plans to use pigs—and transplanting them into humans. Not least is the potential risk that a virus that flourishes in pigs could infect the human recipient and be transmitted from that patient to the general public, causing an epidemic. It is clear to the scientific community that this is a possible risk. But no one knows how likely such a scenario is.

Thus begins The Pandora Project. The scientists of Swindonia aren’t sure how likely the dire scenario of global pandemic from xenotransplantation might be—and neither are scientists in the real world. X-Gen and Swindonia don’t exist, but the organ donor shortage and the risk of diseases that migrate from one species to another are all too real. Each year more than six thousand people die in the United States waiting in vain for an organ transplant. Xenotransplantation offers the promise of being able to “grow” donor organs on demand, but there are obvious ethical concerns. Animal donors would be sacrificed to make organs available for human patients, and while alive, the animals would have to be kept in isolation and in sterile conditions—which some say would be cruel to the most likely donor species, primates and pigs, which are extremely social animals.2

We know that it is possible for a virus to migrate from animals to humans. It has happened in recent years with SARS (severe acute respiratory syndrome) and the avian flu even without transplanting animal organs into a