

User Goals Document

Team 6: Infectious Disease Cellular Automaton

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App Idea: The purpose of this project is to develop an app that will simulate the spread of an infectious disease. There will be a set of rules that apply to a world at each time step to simulate the movement of people and the spread of the virus through surfaces and spaces. The app should be highly customizable, with parameters for many things such as how easily the virus spreads and how it behaves on different surfaces, as well as the ability for users to build different worlds. Users should be able to save the state of their work so they can return to it later. This app will be used for teaching at the middle school level.

Users:

User	Role	Background
Student	The students will be primarily playing with the simulation to learn about how viruses spread.	Students will be of middle-school age (approximately 12-15 years old) and may have a variety of experience with technology.
Teacher	The teachers will be helping the students learn how to use the simulation and be able to access the simulations saved by their students.	Teachers could be aged anywhere from the low twenties up. Teachers are likely to have vast differences in technology experience.

User Goal Table:

User	Goal
Student	The first goal of the students will be to set up the simulation. They will need a user interface that enables them to create players, surfaces, and spaces in the world.
Student	The students also may wish to adjust the rules of their simulation. This will affect how the virus can be transmitted and what happens on each time step.
Student	The students may wish to save their configuration of the simulation to be able to return to work on it later.
Student and Teacher	Both types of users will need to be able to log in to the simulation to access their saved work.

Teacher	The teachers may wish to view the simulations created by their students. To do this they will need to be able to create a class grouping to designate which students are theirs.
Student	The students will need to view a post-simulation summary of what transpired (how many people were infected, how quickly the infection spread, etc.)