

MVP Demo Meeting

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(Team presented, the following includes all the feedback on the current MVP)

Agent states

- Add incubation period
- Add standard deviation to all parameters
- Change states and increase number of edges (rethink state chart)
- Infected can go to infectious or noninfectious, or even immune (cured)
- Don't optimize too early (WebAssembly modules)

Speed Profiling

- Primary bottleneck is drawing
- Check if graph is a bottleneck in profiling

Speed

- When drawing, we should be as close to graphics card as possible
- WebGL is a great next step, time step animation works really well with it
- Maybe don't use observables, used more for user intention
- Multi-level is a great next step
- Adding agent characteristics like age that influence parameters
- Look into population density, modeling different cities with different densities in different boxes
- Show different regions and have them interact, show what is happening in different parts of the country
- Don't use map data
- Have pre-sets of parameters (eg. for Germany, or US...model different countries easily)
- You can set switches in parameters (new logic relations)
- Implement social distancing
- Time based and rule based parameters
- Instead of a map, use simplified boxes
- CHECK LICENSING! (Apache 2 license)
- Use geometric data structures for implementing model interactions (social distancing)
eg. quad trees

For next meeting:

- Fix performance issues
- Increase parameters and have deviations with them
- Implement social distancing
- Change agent-states