Project Proposal

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My proposal is to use a more complex model derived from the SEIRDS model to guage how different factors affected the outbreak. This would involve taking a few different countries' infection data separately - the UK, Italy, Spain and Germany - and use migration data between these countries to infer the spread of the disease between these countries using an object-oriented model in Python, with an extra object to take into account the rest of the world. I would also like to let my model take into account the inconsistencies in the data - with asymptomatic and mild cases having very inaccurate statistics it would be more effective to create a model that uses only severe cases and deaths over time, especially as these are the main factors to be worried about in the pandemic.

Having created this model, I will allow the parameters to vary when different lockdown measures are implemented or lifted and therefore determine what would happen to the model were more of those measures to be lifted and therefore determine at what point we can exit a lockdown safely.