Bamberg Student Simulator: Matthias Delfs, Alexander Albert, Alexandra Kapp

GROUP: Bamberg Student Simulator

MOTIVATION:

Create a tool to make predictions about student movement between campuses bases on reasonable assumptions.

To provide data for further decisions e.g. about sensor placement or bus capacities.

Literature:

U. Wilensky and W. Rand, *Introduction to agent-based modeling : modeling natural, social, and engineered complex systems with NetLogo*, 1st ed. Cambridge (MA) [etc.]: MIT Press, 2015.

<https://ccl.northwestern.edu/netlogo/>, 06.06.2017

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IDEA:

* Simulation of Students moving around campuses
* Including different factors
  + Vehicles (bike, bus, …)
  + Probability of students going to class
  + Personalized timetables
  + Weather
  + …
* Evaluate
  + When are how many students where?
  + Capacity of busses
  + Possible interaction rate with sensors / beacons

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FURTHER PLANS:

* Simulate an **entire semester:** including time relevant variables
* Include **actual data** collected by other teams / data from VC or Prüfungsamt
* **Compare** our results with actual results from **other groups** and adjust
* **Ask** **other** **groups** what factors would be interesting to simulate and include in model