

General Examination for Jack Reid
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General Instructions:

This exam will be emailed to you on Monday, August 23, 2021 at 9 a.m (US Eastern time) and will be due on Monday, August 30, 2021 at 9 a.m. (U.S. Eastern time) the answer should be emailed to sew@mit.edu.

Please select two questions out of the five below to answer. No answer should be longer than ten double-spaced typed pages. Footnotes/endnotes should be accompanied by a complete set of bibliographic references as if these answers were contained in a normal scholarly publication. The references need not count as part of the page limitation of the answer. Begin each answer with a copy of the question you are answering.

QUESTIONS (PICK TWO)

1 - The use of data as a tool for decision making has been controversial for Urban Planners. Please explain this controversy using debates around the use of GIS. Explain these debates, what were the arguments for and against GIS? Who were the key actors in the debates? These early debates lead to the development of Public Participation GIS and Critical Cartography, please define these two terms and explain whether you believe their application responded adequately to the criticism around data in urban planning? Would you deploy these strategies in your own work? Why or why not?

2 - Please describe three common decision-making tools or models applied toward environmental modeling in urban areas. Please describe intended purposes, assumptions, limitations, and history of use of these tools. Which model would you apply toward making land-use decisions related to sea level rise and the increased threat of coastal storms? Explain why you believe this model would be most beneficial and its potential limitations. How could the model be enhanced to address those limitations?

3 - The role of Urban Planners has been highly debated, specifically thinking about whose interest they should be working towards. This is particularly contentious in the field of internal development planning where development goals are often seen as a form of colonization. Using arguments from planning theorists, explain three perspectives on the role of urban or development planners and how they can overcome criticism of colonization and marginalization of public interests. How are those criticisms amplified when data analytics are involved and how can development planners address those criticisms but still use data for informed decision making?

4- One of the biggest issues with decision making associated with climate change is informing the public about the environmental trade-off associated with different development projects. Please list three ways in which urban planners, policy experts, or governments attempt to communicate the trade-offs associated with decision making to the public. Evaluate the success and failures of these different strategies. How can we better communicate environmental models so that the public, government and policy makers can make better decisions, please back your position up with literature?

5 - In many parts of the world data simply doesn't exist. Many countries have not taken basic census data for decades, which makes it extremely hard to make decisions, the World Bank calls it another deprivation to end. Explain the primary pathways for data collection in these environments. How can these forms of data collection and analysis result in inequitable outcomes or be used for outright oppression? What are ways in which data analysts can address the need to collect data to make decisions while also ensuring they protect the public from potential harms?