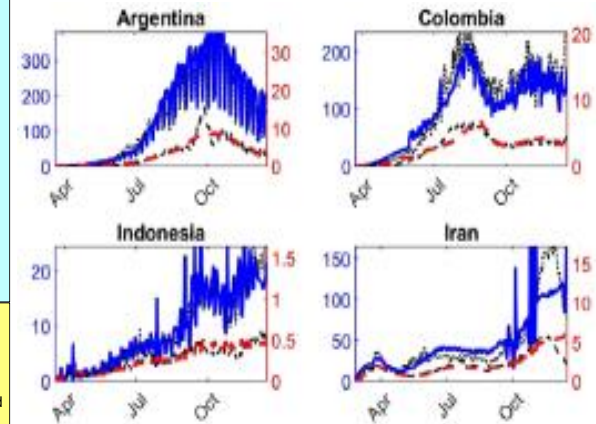
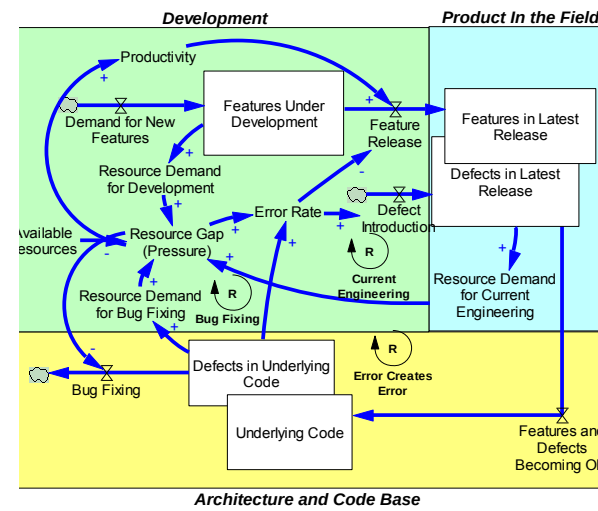
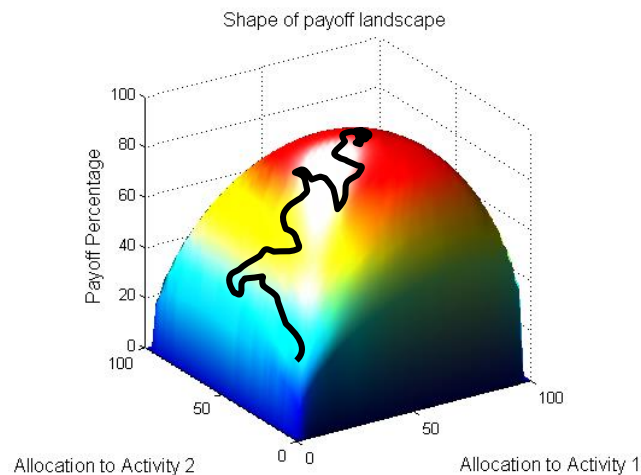
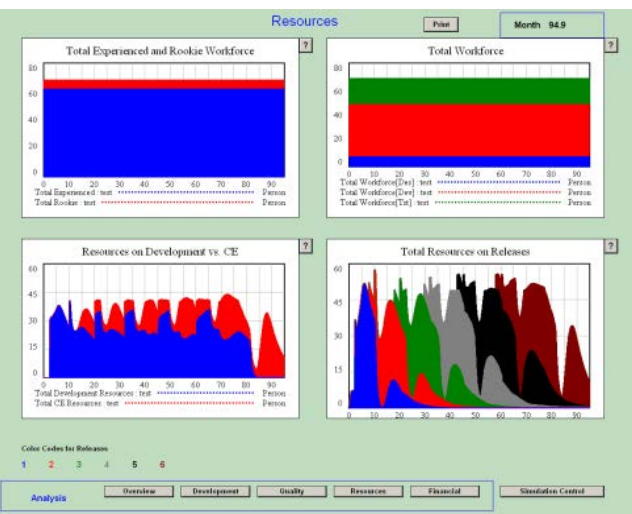


System Dynamics Research Seminar

Week 9: Field Growth

15.879, Spring 2025



Next Week

- I am traveling; Prof. Repenning is hosting the session!
- Come with an early model and questions
- ~10 min on each project:
 - Start with a quick overview of the problem
 - Share your questions and areas for focused feedback
 - Go through the model with rapid feedback from Nelson and class

S9: Growth of a Professional Field

- Modeling the growth of a professional field of practice, e.g. SD:
 - Supply of services coming from practitioners; slow learning curve means we have novices and experts; quality of work determined by how much of work is done by novices
 - Potential demand stimulated by observing work done; reputation built with quality work and eroded with low quality practice, which limits or repels potential demand from becoming actual
- Bonuses: endogenous learning time (with expert support) and policy analysis

Model S9- Common Challenges

- Handling the quality of job done with the mix of people (rookies and experts)
 - Quality/utility impact on future demand
- Allocation of tasks to experts and novices
- Is demand homogeneous or heterogeneous
- Allocation of projects to focal vs. alternative routes
 - What happens to demand not served
- How to respond to excess demand
- Rookie's response to over burden
- On the job training vs. expert allocation to training
- Leaving the market and who goes first, rookies or pros

Discussing Problem Definitions

- We go through them one by one:
 - For those who have reviewed the project:
 - Share your suggestions for the problem at hand
 - Share your points of confusion and question marks as well
 - For problem owner:
 - Share your reactions and how you have addressed those challenges in the final problem definition

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