Simulation and Data Needs to Support Disaster Recovery Planning

-- DAY 1 RECAP --

Greg Deierlein
SimCenter Co-Director
Stanford University
Desirable Attributes of Software
Desirable Attributes of Software
Desirable Attributes of Software

INDIRECT CONSEQUENCE

MAEViz
IN-CORE
HAZUS
REDI
IN-CORE
STATA
IN-CORE
Atlas.ti
SRTI
Desirable Attributes & Features

- Interoperable & Adaptable (avoid silos)
- Scalable to Complex Systems
- Standardized Data Input
- Useful (relevant, fast/efficient, documented, training/tutorials)
- Address Multiple User Needs (from hazard to planning/policy)
- Potential for real-time simulations (validate/update with ground truth data, inform recovery options)
- Open Source
Desirable Attributes & Features

- Interoperable & Adaptable (avoid silos)
- Scalable to Complex Systems
- Standardized Data Input
- Useful (relevant, fast/efficient, documented, training/tutorials)
- Address Multiple User Needs (from hazard to planning/policy)
- Potential for real-time simulations (validate/update with ground truth data, inform recovery options)
- Open Source
Questions/Issues to Address

Out of Twelve Proposal topics ..

1. Housing (3)
2. Codes (2)
3. Lifelines (2)
4. Decision Making (2)
5. Displacement/Relocation
6. Damage Quantification
7. Communications
Out of Twelve Proposal topics..

1. Housing (3)
2. Codes (2)
3. Lifelines (2)
4. Decision Making (2)
5. Displacement/Relocation
6. Damage Quantification
7. Communications

Foundational Issues & Models Needed ... to be continued
Contributions

Day 1 - Thursday, January 30, 2020

8:15  Registration/Coffee
9:00  Welcome, SimCenter Overview, and Workshop Goals

SESSION I: CONNECTING TO STAKEHOLDERS
9:30  Plenary: Application Frameworks for Regional Simulation
      Greg Deierlein, Paolo Gardoni

      Plenary Notes

10:15 Breakout sessions
      Simulation tools, attributes, gaps and capabilities

     Main Room  Room A  Room B
     Theme Team  Notes  Notes  Notes
     Images  Slides  Slides  Slides

11:45 Short break
12:00 Plenary: Discuss Breakout Observations

      Plenary Slides  Discussion Notes

12:30 Roundtable lunch discussions

SESSION II: CONNECTING ACROSS HAZARDS
1:30  Plenary: Issues in Disaster Simulation for Recovery Planning
      Laurie Johnson, Rodrigo Costa

      Plenary Notes

2:15 Breakout sessions
      Collect questions to be addressed by simulations

Day 2 - Friday, January 31, 2020

8:15  Registration/Coffee
9:00  Brief recap of Day 1 and plan for Day 2

SESSION III: DATA SOURCES
9:30  Data needs and sources
      Tracy Kijewski-Corrao, Charles Vardeman

      Plenary Notes

10:00 Breakout sessions
      Identify uses, needs and sources of data

     Main Room  Room A  Room B
     Theme Team  Notes  Notes  Notes
     Images  Slides  Slides  Slides

11:30 Short break
11:45 Plenary: Discuss Breakout Observations

     Plenary Slides  Discussion Notes

12:15 Roundtable lunch discussions

SESSION IV: INTERDISCIPLINARY ENGAGEMENT
1:15  Plenary: Engagement through benchmarking testbeds
      Scott Miles, Paolo Gardoni, Rachel Davidson, Youngjun Choe

      Plenary Notes

2:00 Breakout sessions
      Develop strategies for sharing and vettina of methods
Agenda

**THURSDAY - JANUARY 30**

9:00 am
Welcome, SimCenter Overview, and Workshop Goals

9:30 am
Application Frameworks for Regional Simulation
*Gregory Deierlein, Paolo Gardoni*

10:15 am
Breakout sessions

11:45 am
Short break

12:00 pm
Discuss observations

12:30 pm
Lunch

**SESSION II**

1:30 pm
Issues in Disaster Simulation for Recovery Planning
*Laurie Johnson, Rodrigo Costa*

2:00 pm
Breakout sessions

3:00 pm
Short break

3:15 pm
Discuss observations

3:45 pm
Breakout sessions

4:15 pm
Discuss observations

4:45 pm
Workshop adjourns

**FRIDAY - JANUARY 31**

9:00 am
Brief recap of day 1

9:30 am
Data needs and sources
*Tracy Kijewski-Correa, Charles Vardeman*

10:00 am
Breakout sessions

11:30 am
Short break

11:45 am
Discuss observations

12:15 pm
Lunch, group picture

**SESSION III**

1:15 pm
Engagement through benchmarking testbeds
*Scott Miles, Paolo Gardoni, Rachel Davidson, Youngjun Choe*

2:00 pm
Breakout sessions

3:30 pm
Short break

3:45 pm
Discuss observations

4:15 pm
General discussion, closing remarks

4:30 pm
Workshop adjourns