Bringing GENI to the Classroom: Challenges for GENI Developers

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Bringing GENI to the Classroom

- Outreach through in-class use is a very powerful way for GENI (and shared testbeds in general) to maximize our impact
  - Exposure to large numbers of young practitioners
  - Training for many new experimenters
  - Help create a culture that moves more learning from paper analysis and simulation toward emulation and execution in a real environment

Increased classroom use of GENI is an important goal.

Some Lessons from Sunday Workshop

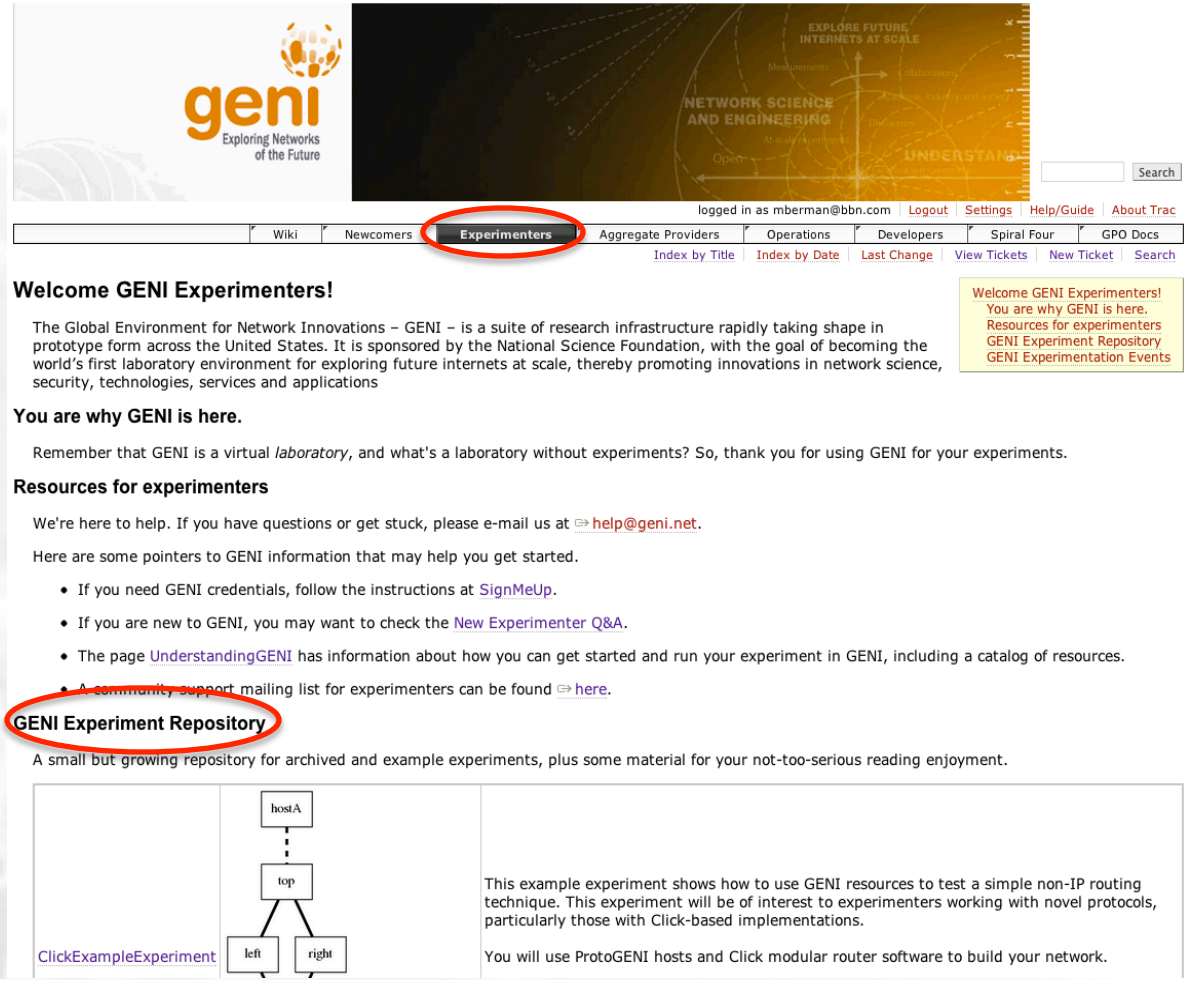
- Instructors see strong potential in using GENI (or testbeds in general) in their classroms
  - Opportunity to use more resources than they could otherwise obtain
  - Consistent platform on which to build
  - Reduce churn of configuring lab (or student) machines
- But, classes are different from experiments
  - Simplicity can trump capability
  - The cost of getting started can dominate

To be ready for widespread classroom use,
we need to bring some ease-of-use issues to the fore.

Some Sample Assignments

Starting a catalog of tested examples on the GENI wiki:

http://groups.geni.net/geni/wiki/GeniExperimenterWelcome



Some Discussion Topics

- What artifacts are most useful for classroom uptake?
  - Documentation?
  - Sample curriculum elements?
- What infrastructure / logistical support is needed?
  - Training (faculty, TAs)?
  - Class administration (existing testbeds like PlanetLab, Emulab, and DETER have much experience to share)