Gateway Focus Week:
Kickstarting Digital Projects with an Intensive Sustainability Workshop

CNI May 2020
Nancy Maron
What Science Gateways Do

Connect expensive resources & data to Scientist-authors that write codes to utilize them to

Help audiences use those codes, data, instruments, collaborate, educate, etc. en masse

(expensive) Resources

? Audience(s)

Collaborating Scientist Software / Data Authors
Storm Surge Models
- Researchers
- Emergency Responders
Serving Students, Researchers & Instructors

1.9 Million Annual Visitors  16,000 Simulation Users

Model & Simulate
USE FOR RAPID EDUCATION AND RESEARCH

500+ APPS
Tools
Most Popular

Learn & Teach
STRUCTURED, GLOBALLY USED RESOURCES

Simulation-Powered Curricula
Curated Education Materials
Courses
Lectures

Develop Software
ASSEMBLE YOUR OWN COMPANY

Jupyter
Linux Workstations
Engines / Frameworks
Machine Learning

Extreme scale nano-phenomena “app store” for education and research
Linking 1000’s of high school students with 1000’s of professional mentors
The Power of Math x Biology x Community

QUBES is a community of math and biology educators who share resources and methods for preparing students to tackle real, complex, biological problems.

Learn more about QUBES

Resources   Community   Services
EXPLORE THE DISPERSAL OF ENSLAVED AFRICANS ACROSS THE ATLANTIC WORLD
This digital memorial raises questions about the largest slave trades in history and offers access to the documentation available to answer them. European colonizers turned to Africa for enslaved laborers to build the cities and extract the resources of the Americas. They forced millions of mostly unnamed Africans across the Atlantic to the Americas, and from one part of the Americas to another. Analyze these slave trades and view interactive maps, timelines, and animations to see the dispersal in action.

Henry Louis Gates introduces Slave Voyages 2.0 and some of its people

>36,000 vessel voyages
>10,000,000 slaves
>91,000 named records
Comet allocation is almost gone for the year. I hope to have more at the end of March (Bridges is out already).

**Introduction:** The Chem Compute website allows students to easily access state of the art computational software for free. Our hope is that this will enable faculty to incorporate computational chemistry into their undergraduate teaching and research curriculum without the hassle of compiling, installing, and maintaining software and hardware.

**Instructors:** learn about using Chemcompute in your class

**To Begin:** Choose from two available packages below:

### GAMESS

*(The General Atomic and Molecular Electronic Structure System)* is a quantum chemistry package.

### TINKER

TINKER is a molecular dynamics package from the Jay Ponder Lab.

Calculations are run for free on these clusters:

- **Jetstream:** Available for use to all users. A cloud cluster consisting of up to 10 nodes (10 cores each). The cluster will grow as more jobs are submitted. Great for small jobs because it has little overhead
- **Comet:** A cluster at the San Diego Supercomputing Center, with 1984 nodes (47,616 cores). Available for use to registered users and undergraduate classes. Best choice for large jobs
- **Bridges:** A cluster at the Pittsburg Supercomputing Center, with 752 nodes (21,056 cores). Available for use to registered users and undergraduate classes

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Educaing 1000's of undergrads in computational chemistry
The formation of an institute... to institutionalize best practices

Community Knowledge Awareness Efficiency Sustainability
Science Gateways Community Institute

- Education & Training
- Networking & Community
- Support for Building & Running Gateways
## Major accomplishments in 4 years

<table>
<thead>
<tr>
<th><strong>939</strong> webinar attendees</th>
<th><strong>2,056</strong> participants in SGCI’s events</th>
<th><strong>504</strong> student &amp; <strong>41</strong> faculty participants</th>
<th><strong>163</strong> letters of collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>244</strong> Focus Week Attendees</td>
<td><strong>13</strong> Affiliates</td>
<td><strong>32</strong> success stories</td>
<td><strong>63</strong> Consultations</td>
</tr>
<tr>
<td><strong>47</strong> Extended Developer Support projects</td>
<td><strong>$865,339</strong> additional funding to SGCI by external projects</td>
<td><strong>596</strong> Gateway Catalog entries</td>
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*SGCI*
Science Gateways are sustainability habitats for scientific applications, their creators, and their users.
A five-day intensive workshop designed to benefit teams who want to ensure the sustainability of their gateway projects.
Focus Week is offered twice per year and is subsidized by the National Science Foundation.

This allows participants to attend what would otherwise be a $2,500 per team event at no cost other than travel, hotel, and a few meals. Most lunches and dinners are provided as part of the networking and cohort building activities.
Focus Week brings teams together
Value Proposition
• Identify the primary value of your project.

Understanding Your Audience & Stakeholders
• Explore and assess your audiences and stakeholders to better engage them.

User-Centered Design
• Learn the principles of design and usability best-practices through a live usability study.
From the big picture, to the nuts & bolts...

Budgeting
- Building a budget that supports growth

Identifying a Diversified Funding Model
- Exploring new approaches to gaining the resources you need to keep your project vital

Sales & Marketing
- How to use all this knowledge to convince others to help you attain your goals
Daily “Brain Trust” sessions foster peer-supported learning
# A Typical Focus Week Agenda

<table>
<thead>
<tr>
<th>MON</th>
<th>TUES</th>
<th>WED</th>
<th>THURS</th>
<th>FRI</th>
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<tbody>
<tr>
<td>Audience</td>
<td>Funding Model</td>
<td>Goal Setting</td>
<td>Cybersecurity</td>
<td></td>
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<tr>
<td>Environment</td>
<td>Budgeting</td>
<td>Marketing</td>
<td>Pitch Deck: Team Presentations</td>
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<tr>
<td>Sustainability Overview</td>
<td>Brain Trust</td>
<td>Brain Trust</td>
<td>Final Session</td>
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<tr>
<td>Napkin Drawing</td>
<td>Value Proposition</td>
<td>Market Landscape</td>
<td>User-Centered Design</td>
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<td>Brain Trust</td>
<td>Sales</td>
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We offer full-week sessions and customized engagements

240
Focus Week Attendees

10
Focus Week Engagements
Instructors

Mike Zentner

Nancy Maron

Juliana Casavan

Paul Parsons
user experience

Nate Snodgrass
budgeting

Mark Krenz
cybersecurity
“The pitch deck (helped) convince campus leadership that it was worth an investment to fully fund the creation of the SMM.”

Founder, Social Media Macroscope

https://socialmediamacroscope.org/
“We've definitely seen increases in site activity due to bootcamp-inspired initiatives. We've got a much better idea who our audience is and we've tried reaching out to them in different ways.

“We developed our budget more in depth when we returned to work and presented our findings to management, who agreed that another person would be helpful.”
Two Programs in 2020

Focus Week goes Virtual!

Jumpstart Your Sustainability Plan
June 16 – 18

Focus Week, November 30 – December 4
Hosted by San Diego Supercomputer Center
La Jolla, California
Jumpstart Your Sustainability Plan

- A FREE Mini-course. Just the basics!
- Three Day program, June 16–18.
- Two sessions daily:
  - Fundamentals @ 12noon Eastern
  - Special Topics @ 4:00pm Eastern
- Come to all sessions or choose what you prefer.
- **Register for all 3 sessions** and you can sign up for an **individual consultation** with one of our instructors for guidance on your project
Tuesday, June 16

12:00–1:30 pm
Sustainability: How Science Gateways can thrive (not just survive)

4:00–5:00 pm
Special Topic: Cybersecurity for Science Gateways

Wednesday, June 17

12:00–1:30 pm
Audience & Environment: Sustainability through Impact

4:00–5:00 pm
Special Topic: User Experience for Science Gateways

Thursday, June 18

12:00–1:30 pm
Finding your Funding Model

4:00–5:00 pm
Special Topic: Activity-Based Budgeting
Register for June session today!

Teams of 2–3 are encouraged to apply!
We welcome PIs and tech leads, sales/marketing

Register by June 12!

https://sciencegateways.org/engage/focus-week/jumpstart