

Research Cyberinfrastructure Vision Workgroup

Meeting Summary

October 12, 2015

Handouts included

- Agenda
- Preliminary discussion outline: <http://sites.uci.edu/cio/rci-planning-outline/>
- FASRC report: <http://sites.uci.edu/fasrc/>
- Proposed outline for RCI Symposium.
- UCI Summary of Strategic Plans Goals and Strategies | October 2015
<http://provost.uci.edu/img/strategic-plan/151006-StrategicPlanSummaryPillarsGoalsStrategies.pdf>

There were roundtable introductions with workgroup members giving names and affiliations.

Dana Roode (DR) reviewed the workgroup charge, gave an overview of the agenda, and solicited agreement with the outline and asked for any proposed additional items. The workgroup approved the agenda.

DR provided the goal & context for the workgroup. The goal is to enable scholarly productivity and enable research breakthroughs otherwise not possible. The workgroup will pick up where FASRC left off and provide input to the UCI strategic planning process and the UC-wide conversation arising from the Spring 2015 VCR/CIO summit at UCLA. The intention is not to re-do the intensive research that went into creating the FASRC report. Suzanne Sandmeyer (SS) was unable to attend and DR provided her comment on the agenda and items for discussion: the issue of training for RCI is much more major than indicated in the vision/outline.

DR reviewed the proposed strategy of the workgroup and the timeline for providing deliverables. Workgroup members agreed to do outreach and discussion with their constituencies and bring the feedback to the monthly workgroup meetings.

There was roundtable discussion on developing the UCI RCI vision. Comments, ideas and suggestions put forth include:

- There will be different points of view across campus on what's needed for RCI, very individualized
- Many bullet points of the draft UCI strategic plan have RCI components. The workgroup may want to address its recommendations to match those
- Some faculty encounter issues with sharing data & documents due to disk storage limitations, inability to configure private/secure access, network bandwidth for access. Workarounds include using externally available services or services from prior institutions. There are multiple solutions, but each researcher's response to the issue is individualized. There is a need for a

coordinated effort to address it; a common strategy that UCI researchers can avail themselves of.

- HPC clusters are working fairly well but could use more nodes, better centralized funding vs. paying for nodes with grant money, higher speeds for the network access and additional staff support.
- There is no good model in place for refreshing cluster hardware on a regular basis to ensure researchers have access to the most effective, current technology.
- Provisions for educational use of campus clusters are after-thoughts and insufficient to support parallel programming and related classes. Students encounter long waits. It is unfair to ask faculty to use research funds to pay for the required capacity.
- Training came up repeatedly. It is ad-hoc, departmental based, and variable. Needed for HPC clusters and for high-performance computing. Local training and experience is necessary in preparation accessing the machines at the national supercomputing centers.
- There is an increasing need to retain data for long term (years) in order to analyze, re-analyze. In some cases the data generated in processing is so large that it can't be stored and computational work has to happen on-the-fly.
- Arts and Humanities data can be different. Images and video are analyzed and require different software/techniques than text and numerical data. The smaller number of computational researchers within these disciplines lack funding and tech support.
- All mentioned better support for file back-up with data kept on local personal machines, including training on best practices. Many used their own RAID array and weren't comfortable with only having "consumer grade" disaster recovery.
- Difference between "big job" computing and "many job" computing, focus on big job model on supercomputing risks losing the researchers who need highly parallel processing
- Departments have differing levels of local IT support, often an add-on to another FTE
- Need for better awareness and usage of digital scholarship support services from the Libraries which help researchers to be in compliance with grant funding agency requirements for data management plans and data sharing as well as the UC Senate Open Access mandate
- Need to surface the issues to the Deans and Chancellors in order to prioritize in their "firefighting" queue. Document use cases of needs not being met to support funding pitch

DR asked for suggestions for other RCI policy and implementations to review

- U. Washington
- U. Michigan
- U. Wisconsin
- NSF/National Academy of Science report on computing for 2030

Discussion of proposed UCI symposium on campus RCI

- All agreed with general outline proposed
- Suggestion for ensuring attendance by Office of Research reps and VCR
- Need to figure out ways to make it enticing for faculty to attend - all to solicit feedback from their constituencies on what would make them participate or who they would come to see
- Suggestion of showcasing work from various areas on campus + round tables on what faculty worry about