

Connecting Cyberinfrastructure

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Infrastructure doesn't federate, people federate

*Give people-organization features priority from
the beginning*

Federation structures between people are complex and vary a lot

Build loose, rather than strict, federations

“Any sufficiently advanced technology is indistinguishable from magic.”

– Clarke’s Third Law

“... but any sufficiently advanced federation is still distinguishable from a single facility.”

–Ricci’s Addendum to Clarke’s Third Law

Users want to do research or take classes, not
learn about infrastructure

*Smooth over the differences you can, expose
those that you can't directly*

“The only way of discovering the limits of the possible is to venture a little way past them into the impossible.”

–Clarke’s Second Law

Enable people to use the infrastructure for things you didn’t think you designed it for, without asking your permission.

“When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.”

–Clarke’s First Law

“Workshop on the Development of a Next-Generation Cyberinfrastructure”, October 2014

Whitepapers and report at:

<http://www.nics.utk.edu/~victor/nextgencipapers/>

Findings: work on these areas

- Resource description and discovery
- Rich policy definition and enforcement
- Agile and adaptive federated configurations
- Secure data in federated cyberinfrastructure across domains