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The Role Of NREN In Research Collaboration

How NRENs Can Help Connect Researchers in Disparate Locations



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Collaboration Is Critical For Research

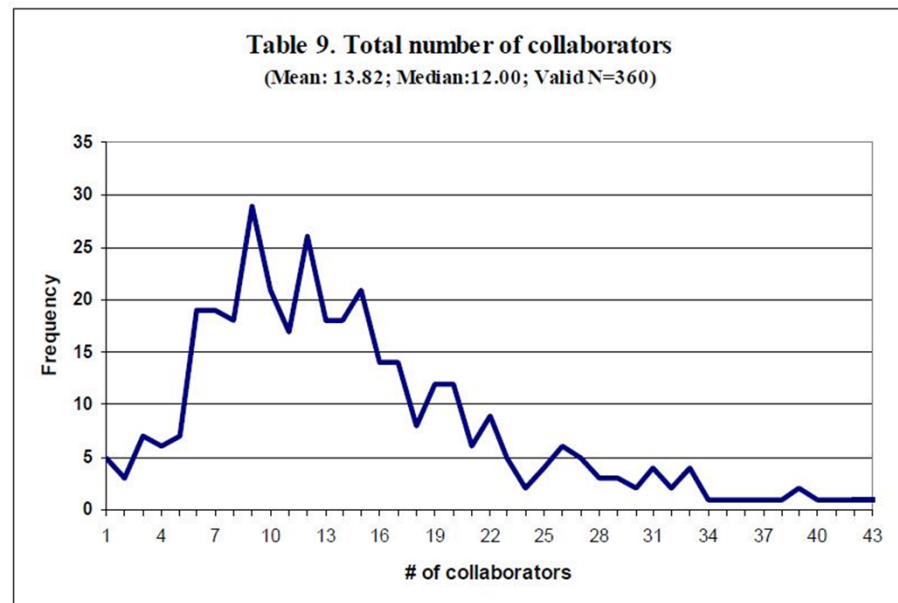
13.8 Average No of Collaborators

93% of the time working with others

20% of the time with people outside institute

6% of time working internationally

| Work Setting | N | Mean percentage of Research time | Std. Deviation |
|--|-----|----------------------------------|----------------|
| Research time working alone | 420 | 16.38% | 20.336 |
| Research time working with researchers and graduate students in my immediate work group | 434 | 51.07% | 24.006 |
| Research time working with researchers in my university, but outside my immediate work group | 407 | 12.21% | 12.632 |
| Research time working with researchers who reside in nations other than the U.S. | 391 | 5.71% | 8.074 |
| Research time working with researchers in U.S. universities other than my own | 403 | 9.11% | 10.901 |
| Research time working with researchers in U.S. industry | 393 | 5.96% | 8.455 |
| Research time working with researchers in U.S. government laboratories | 380 | 3.35% | 6.715 |



The Impact of Research Collaboration on Scientific Productivity, Bozeman & Lee, 2003



What Is Important?

6 Principles

- Enable Mobility
- Build and Engage Community
- Facilitate Data Collection and Sharing
- Facilitate Experiential and Location-based Learning
- Persistent and Multi-Location
- Support Assessment and Analytics



~~Global Network University (GNU) – The Vision~~ **The Role of The NREN is ...**

... to enable **seamless mobility** of faculty, students, researchers, and teaching and learning between branch campuses and across international study sites

Source: NYU Vision Document, February 2009

To achieve this vision, **the NREN has the following** technology-focused objectives:

a **world-class, fully-meshed** network

access to **new communications technologies**

globalize **shared services** & applications

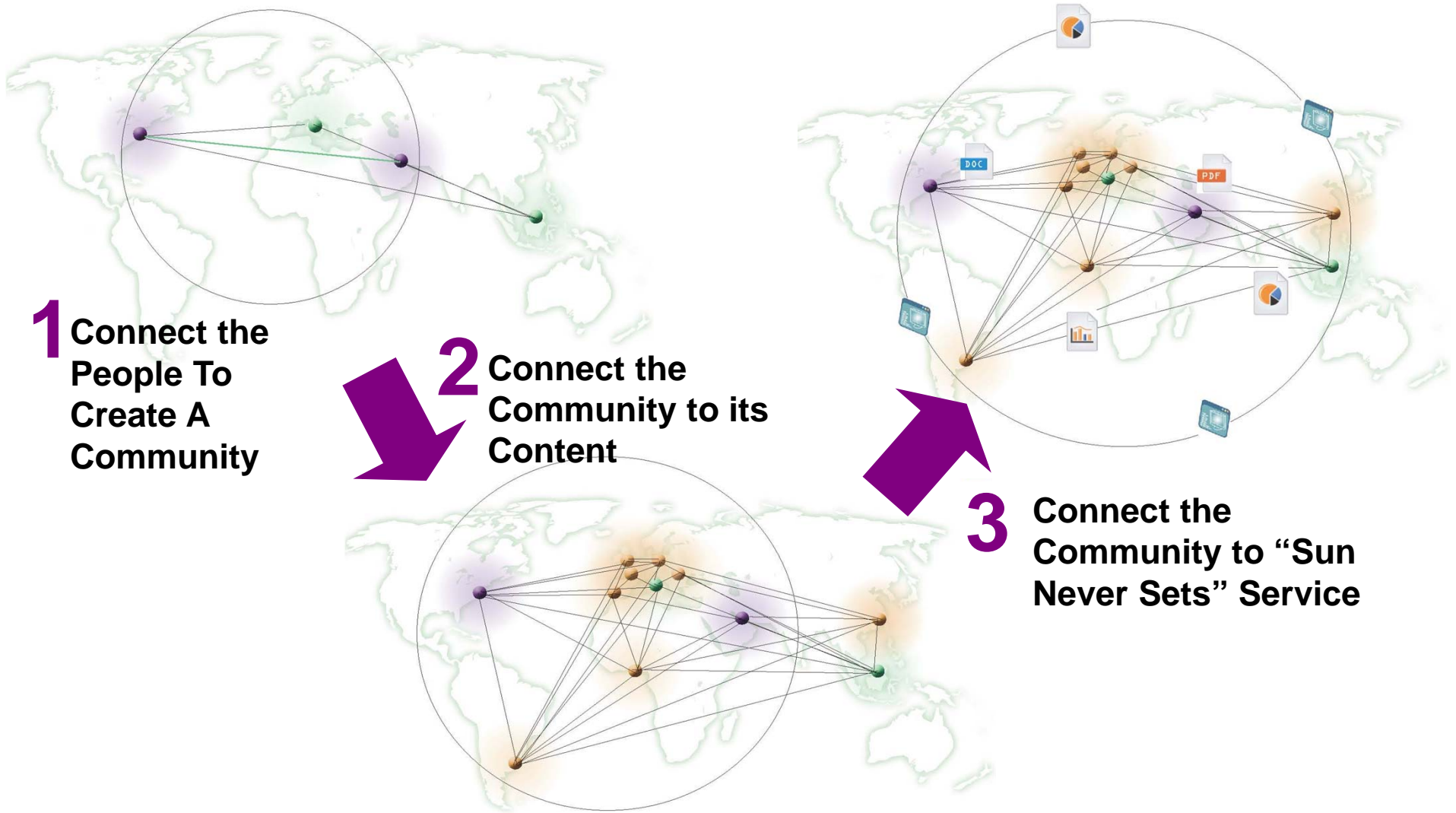


Create The Collaboration Environment In Three Steps

1 Connect the People To Create A Community

2 Connect the Community to its Content

3 Connect the Community to "Sun Never Sets" Service





Where Are They? What Do They Connect?





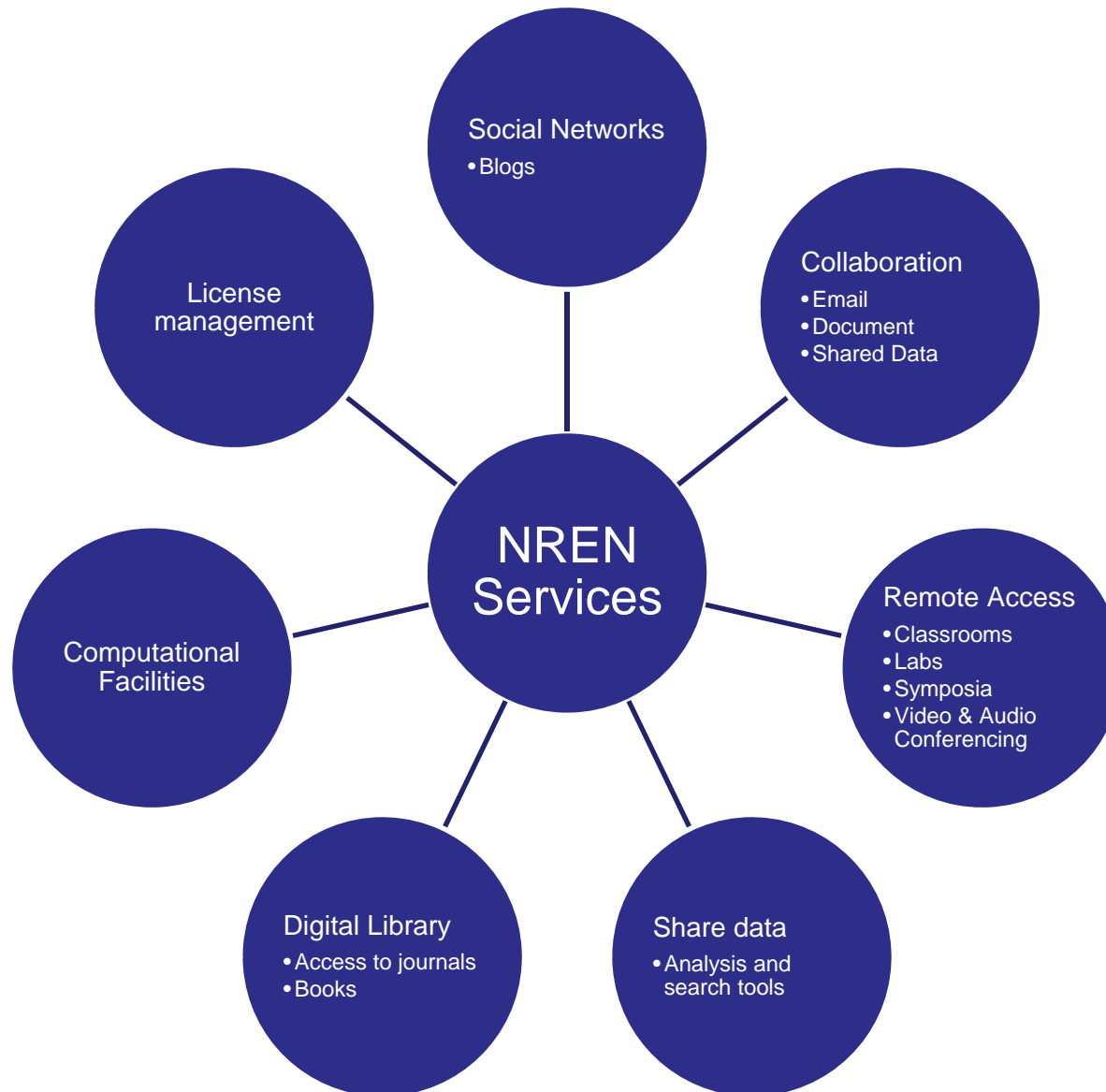
Step 1: Connect The Researchers

- Build meshed network to connect all your researchers across the world
- Videoconferencing, shared applications and a new network link two additional global sites to deliver global curriculum capability



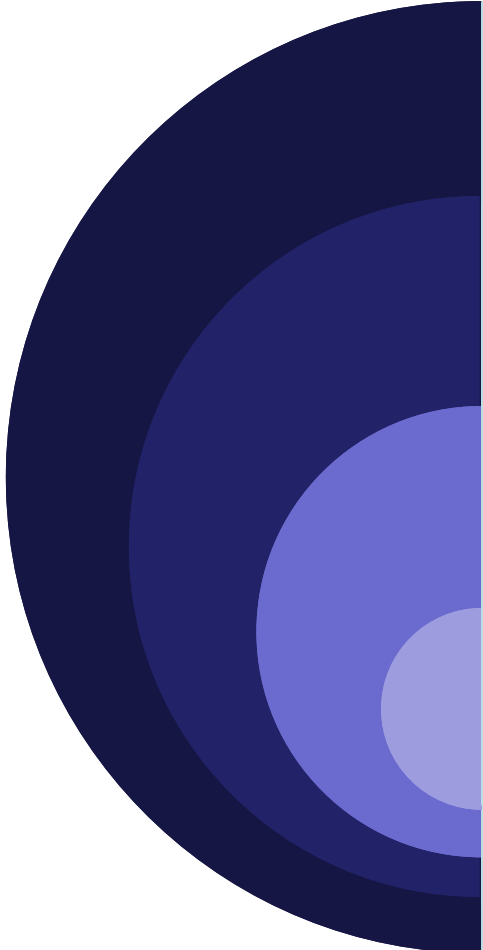


What Services Do They Need?





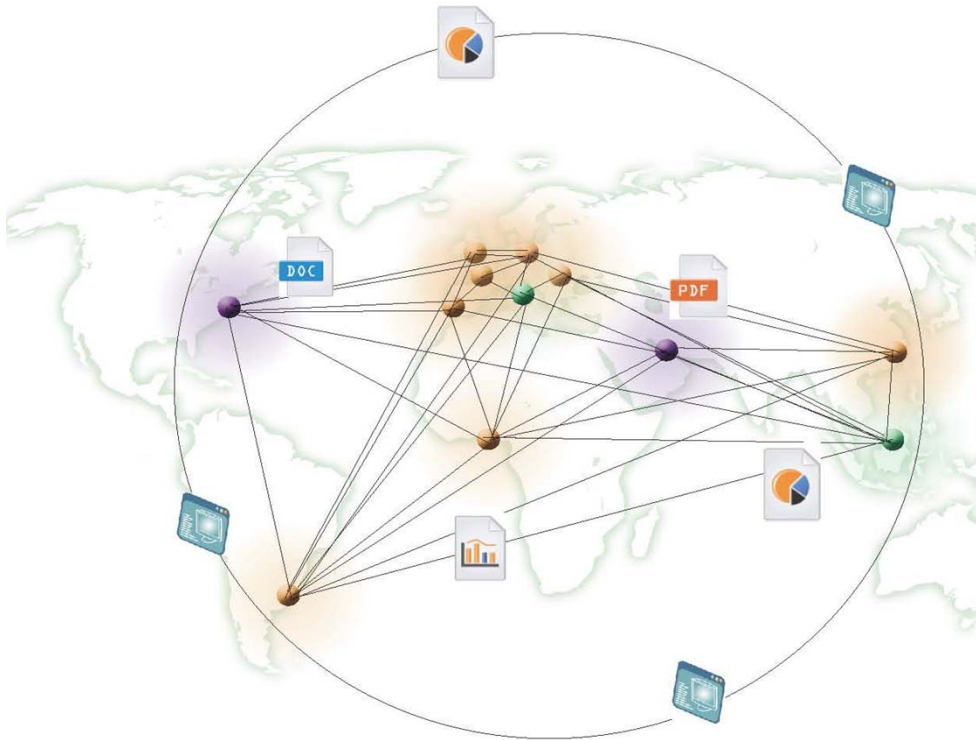
The Challenges



| | |
|------------------|---|
| Researcher Needs | <ul style="list-style-type: none">• Extensible Service Model• Computational Grid |
| Data Overload | <ul style="list-style-type: none">• Recommender Engine• Analytics |
| Global Access | <ul style="list-style-type: none">• Role and Institution Based• Location Aware |
| Legal Issues | <ul style="list-style-type: none">• Copyright & License Mgt• Compliance |
| | |
| | |



Step 3– Provide A “Sun Never Sets” Service



Service Without Boundaries

- 5 Continents
 - 12 Time Zones
- Requires Pragmatic, operational, easy to use, flexible services
 - Leverage a “follow the sun,” offering support, training and assistance as needed by the global community.



The NREN is More Than A Network. The NREN ...

- is a technology-enabled global community that will deliver access to the intellectual and educational resources of a major research enterprise,
- is an international community of researchers, faculty and students,
- is a state-of- the-art library system with comprehensive research databases
- provides channels for academic exchange across the globe
- allows joint classroom experiences across institutions

...is a Collection of Collaboration Services

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