Bigger on the Inside:

Integrating Research Data Services in Campus-Wide Networks

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' Oh, that box ... big and little at the same time. Brand new and ancient and the bluest blue ever.'[1]

-- The Doctor

Research Data Services at UVA

data.library.virginia.edu

Data Analysis, Visualization & Computation

StatLab: Support for data science and applied statistics — data wrangling, analysis, visualization, statistical inference and computational methods — via workshops and individual consultations and collaborations.

Guidance on data tools and technologies like R, Python, Stata, SPSS, SAS, and more. Contact: statlab@virginia.edu
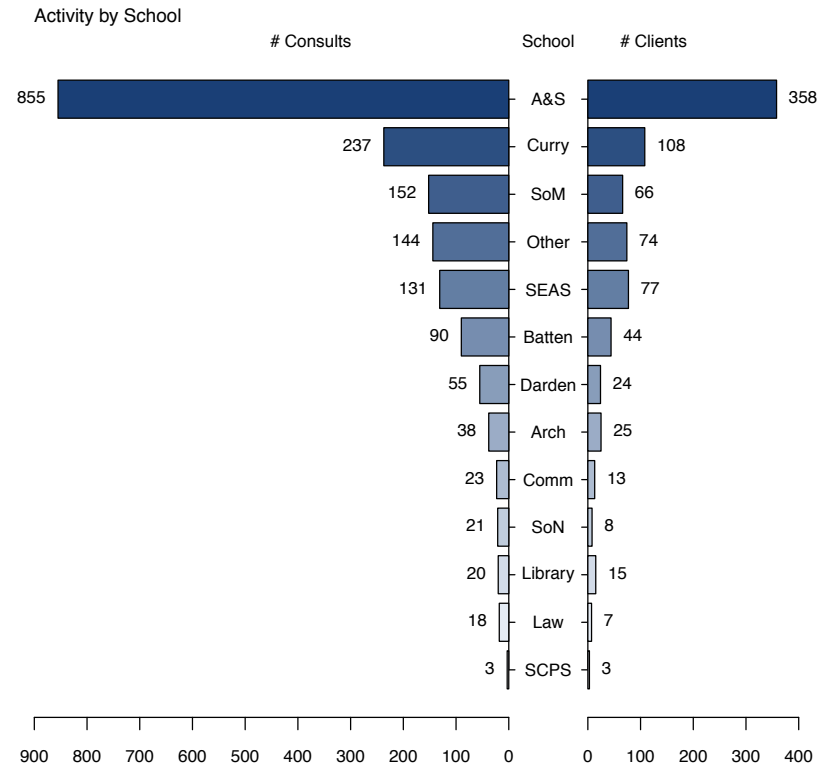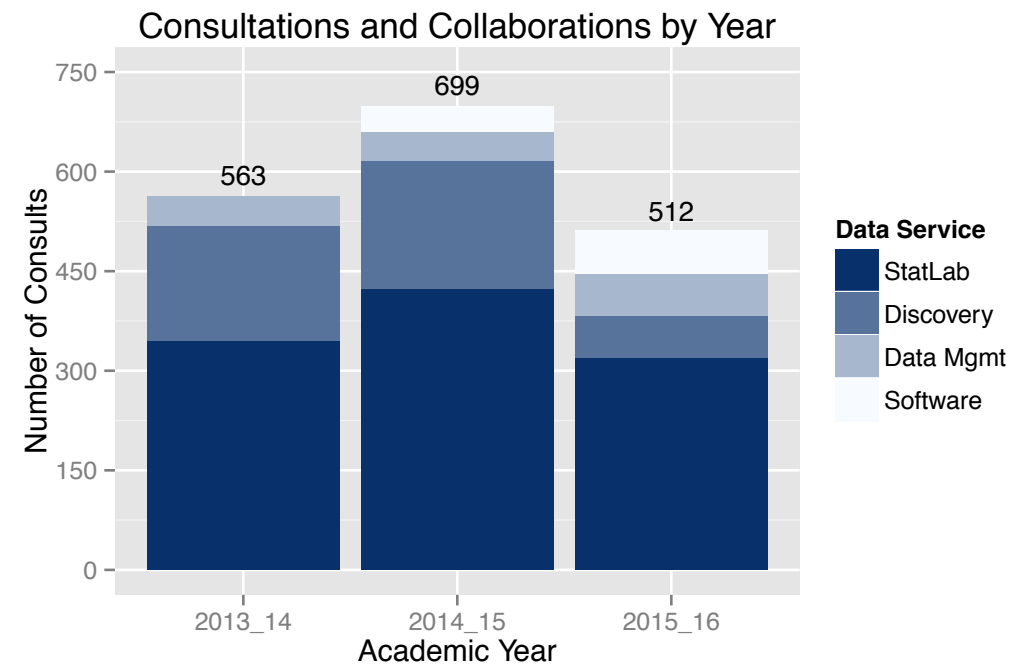
Data Resources & Services

Data Discovery & Acquisition: Search and discovery for existing data sources and licensing and acquisition of data for academic research and teaching. Contact: data@virginia.edu

Research Data Management: Support for data management and data sharing plans, guidance on selecting a data repository, and consulting on the preparation, documentation, organization and formatting of data for sharing and archiving. Contact: dmconsult@virginia.edu

Research Software: Accessing and installing University site-licensed software, including SPSS, SAS, Ansys, Labview, Matlab and others. Contact: res-consult@virginia.edu

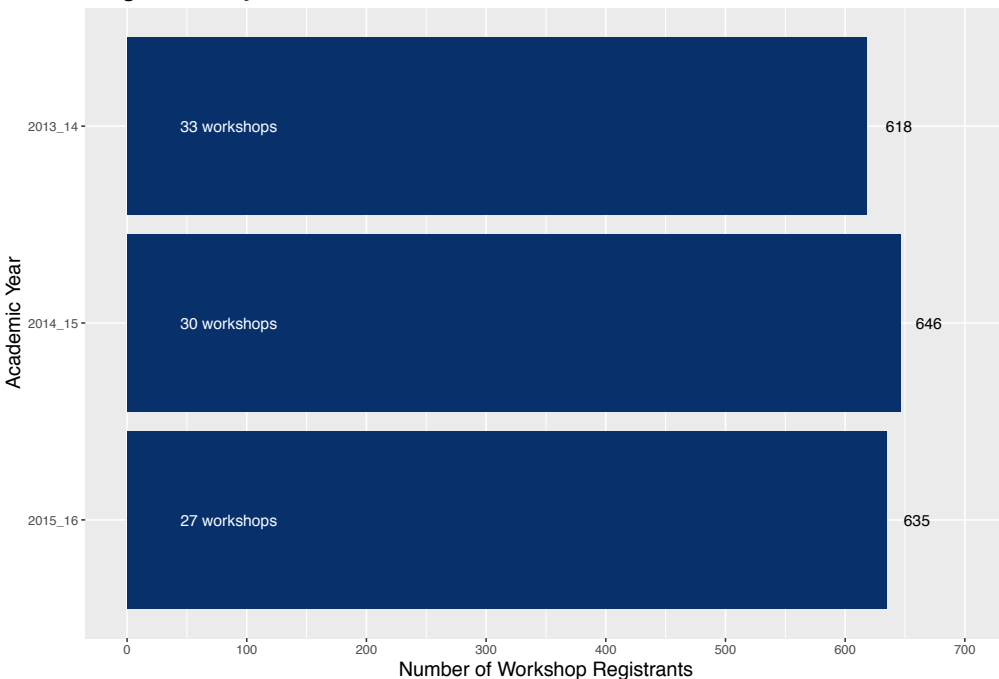**UNIVERSITY of VIRGINIA LIBRARY**

'People assume that time is a strict progression of cause to effect. But actually from a non-linear, non-subjective viewpoint it's more like a big ball of wibbly-wobbly, timey-wimey... stuff.'[2]

-- The Doctor

First Three Years: Consultations & Collaborations

Consultations and Collaborations by Year

Number of Consults vs Academic Year

- 2013_14: 563
- 2014_15: 699
- 2015_16: 512

Data Service
- StatLab
- Discovery
- Data Mgmt
- Software

Activity by School

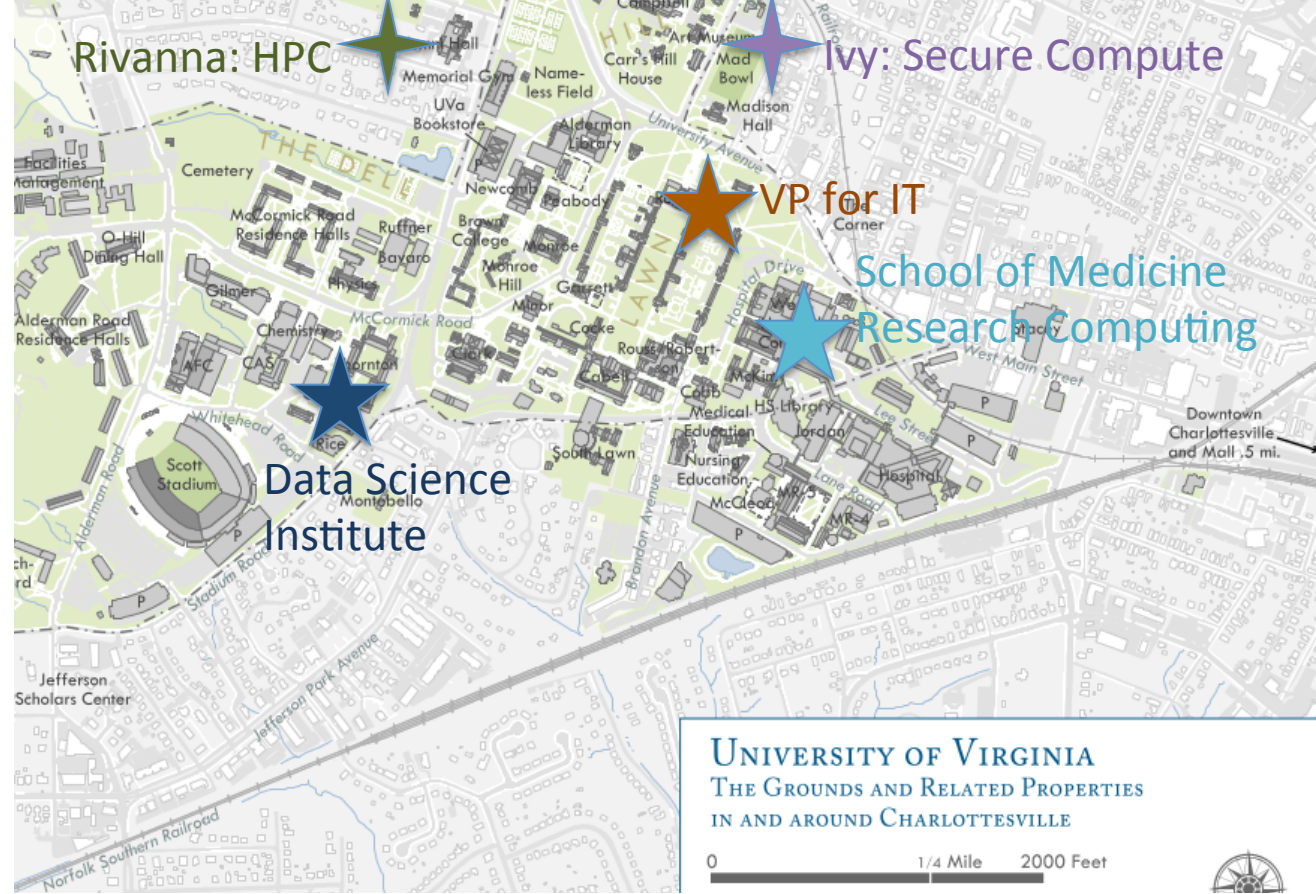| # Consults	School	# Clients
855	A&S	358
237	Curry	108
152	SoM	66
144	Other	74
131	SEAS	77
90	Batten	44
55	Darden	24
38	Arch	25
23	Comm	13
21	SoN	8
20	Library	15
18	Law	7
3	SCPS	3

'There's a lot of things you need to get across this universe. Warp drive, wormhole refactors. You know the thing you need most of all? You need a hand to hold.'[3]

-- The Doctor

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First Three Years: Workshops & Training

'To the rational mind, nothing is inexplicable; only unexplained.'[4]

Meanwhile, elsewhere on grounds…

Rivanna: HPC

Ivy: Secure Compute

VP for IT

School of Medicine Research Computing

Data Science Institute

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THE GROUNDS AND RELATED PROPERTIES
IN AND AROUND CHARLOTTESVILLE

0   1/4 Mile   2000 Feet

'Never ignore a coincidence. Unless you're busy, in which case always ignore a coincidence.'[5]

-- The Doctor

CADRE

(Not just a revolutionary vanguard, or DC Comics supervillain group)!

cadre.virginia.edu

Partner Organizations
- VPIT
- ARCS
- RDS
- DSI
- ITS-RCI
- BioConnector/HSL
- SOM-RC

CADRE Computation and Data Resource Exchange

Need Help
Contact a CADRE Agent

About Us

CADRE is a University-wide exchange designed to simplify the process of finding local research technology solutions. The CADRE website provides a comprehensive list of the software, services, training opportunities, storage solutions, and computational hardware available to UVA scholars. CADRE is multi-disciplinary and supports all eleven schools of the University.

Data Analysis & Software
Consulting and tools for data analysis, data wrangling, and statistics

Computation
High-performance computing, big data solutions, Rivanna, project consulting, programming language communities

Visualization Services
Hardware and software tools for visualizing data, medical imagery

Storage
Short-term and long-term storage options for any size dataset

Education, Training & Outreach
Courses, workshops, public events and presentations

Biomedical Computing
Bioinformatics, genomics, biomedical data, and computational biology research support
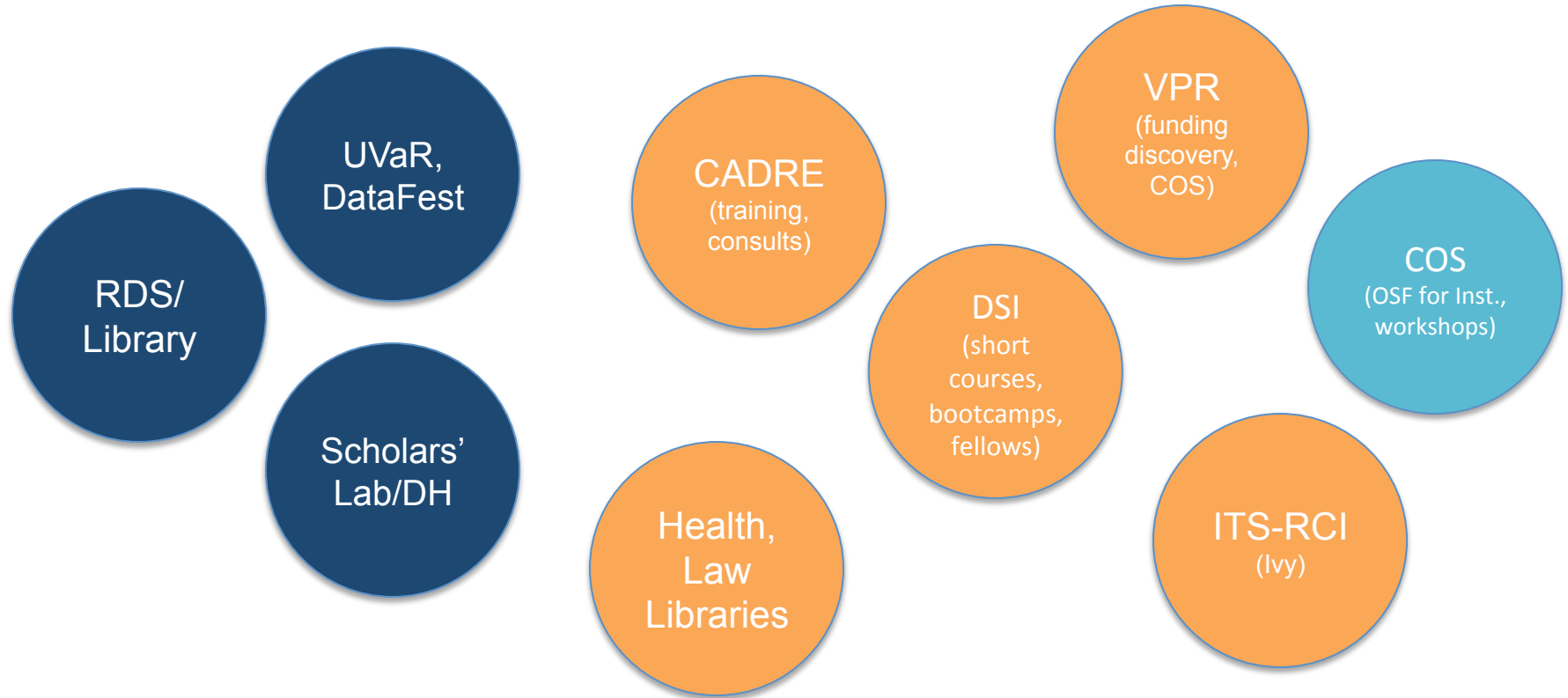
Arts & Humanities
Resources and services for digital humanities and digital arts scholars

Data Sources
Resources to locate and share local, licensed, and other existing datasets

'The universe is big. It's vast and complicated and ridiculous. And sometimes, very rarely, impossible things just happen and we call them miracles.'[6]

-- The Doctor

Partnerships & Programs: The Upside of Bigger on the Inside

RDS/ Library

UVaR, DataFest

Scholars' Lab/DH

CADRE (training, consults)

DSI (short courses, bootcamps, fellows)

Health, Law Libraries

VPR (funding discovery, COS)

COS (OSF for Inst., workshops)

ITS-RCI (Ivy)

'This is one corner, of one country, in one continent, on one planet that's a corner of a galaxy that's a corner of a universe that is forever growing and shrinking and creating and destroying and never remaining the same for a single millisecond.'[7]

-- The Doctor

Challenges: The Downside of Bigger on the Inside

- Maintaining relationships (e.g., external partnerships and internal teams)

- Differing cultures across units (e.g., sharing information and credit)

- Diffusing responsibility (and credit)

- Shifting work versus expanding work

- Obscuring resource needs

How can library leadership help?

'Just do what I do. Hold tight and pretend it's a plan!'[8]

-- The Doctor

The Team

Our Librarians and Data Scientists
(or Data Librarians and Library Scientists)

- 5 MLIS
- 3 Masters (Statistics, Sociology, Instructional Technology)
- 4 Doctorates (Political Science, Astronomy, Physics, Physiology)

'We're all stories, in the end. Just make it a good one, eh?'9

-- The Doctor

What's Next?

For UVA Library's RDS?
- Integrating Data Services and Social, Natural, & Engineering Science teams
- Imagining possibilities for space
- Branching into the qualitative arena
- Internally developed projects: Data for Democracy Lab

For us today?
- Enlightening discussion!

'You want weapons? We're in a library! Books! The best weapons in the world!'[10]

-- The Doctor

References

Title Figure: The TARDIS, *BBC America*, 7 December 2016 <http://www.bbcamerica.com/anglophenia/2012/12/doctor-who-the-magic-of-the-tardis>

1. Doctor Who, Season 5, 'The Big Bang'
2. Doctor Who, Season 3, 'Blink'
3. Doctor Who, Season 2, 'Fear Her'
4. Doctor Who, Original Season 14, 'The Robots of Death'
5. Doctor Who, Season 5, 'The Pandorica Opens'
6. Doctor Who, Season 5, 'The Pandorica Opens'
7. Doctor Who, Season 7, 'The Power of Three'
8. Doctor Who, Season 7, 'The Doctor, The Widow, and The Wardrobe'
9. Doctor Who, Season 5, 'The Big Bang'
10. Doctor Who, Season 2, 'Tooth and Claw'

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With apologies to The Doctor...