NYU and UC Berkeley: Looking Outside to Improve Inside

David Greenbaum, UCB
Lynn Rohrs, NYU
Jenn Stringer, UCB

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Overview

- How this started
- What NYU did
- What Berkeley did
- Some results and comparisons
- Lessons learning and next steps

1831

NYU Opens its doors

(as *University of the City of New York)*

CLINTON HALL, THE FIRST HOME OF THE UNIVERSITY

NYU FRAMEWORK 2031

In the next quarter century, there will be two to three dozen truly great research universities in the world. NYU . . . must secure its place in that group . . . by building on its own unique strengths, assets, and ambitions.

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Substantial Science/Research entities Opened at NYU since 2006

CUSP
CENTER FOR URBAN SCIENCE+PROGRESS

ISAW

NYU·poly

The Research Alliance for New York City Schools

CENTER FOR GENOMICS AND SYSTEMS BIOLOGY NEW YORK UNIVERSITY

NYU Center for Data Science

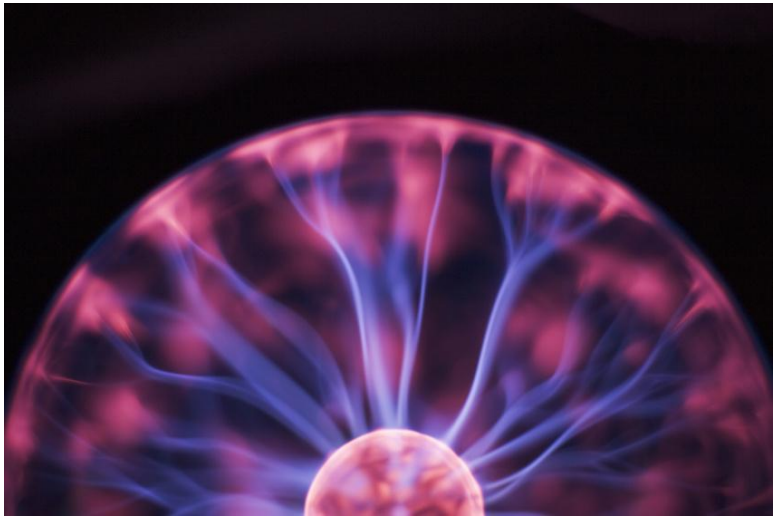
MolecularDesignInstitute

NYU Abu Dhabi Institute

New York University
Center for Brain Imaging

December 16, 2010

NYC Mayor Michael Bloomberg announces initiative to develop a new engineering and applied sciences research campus to bolster city's innovation economy



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Applied Sciences Initiative Competition

2nd Award Made to NYU – April 23, 2012 - CUSP
Mayor Michael Bloomberg and NYU President John Sexton

NYU's Applied Science Initiative - CUSP

CUSP
CENTER FOR URBAN
SCIENCE+PROGRESS

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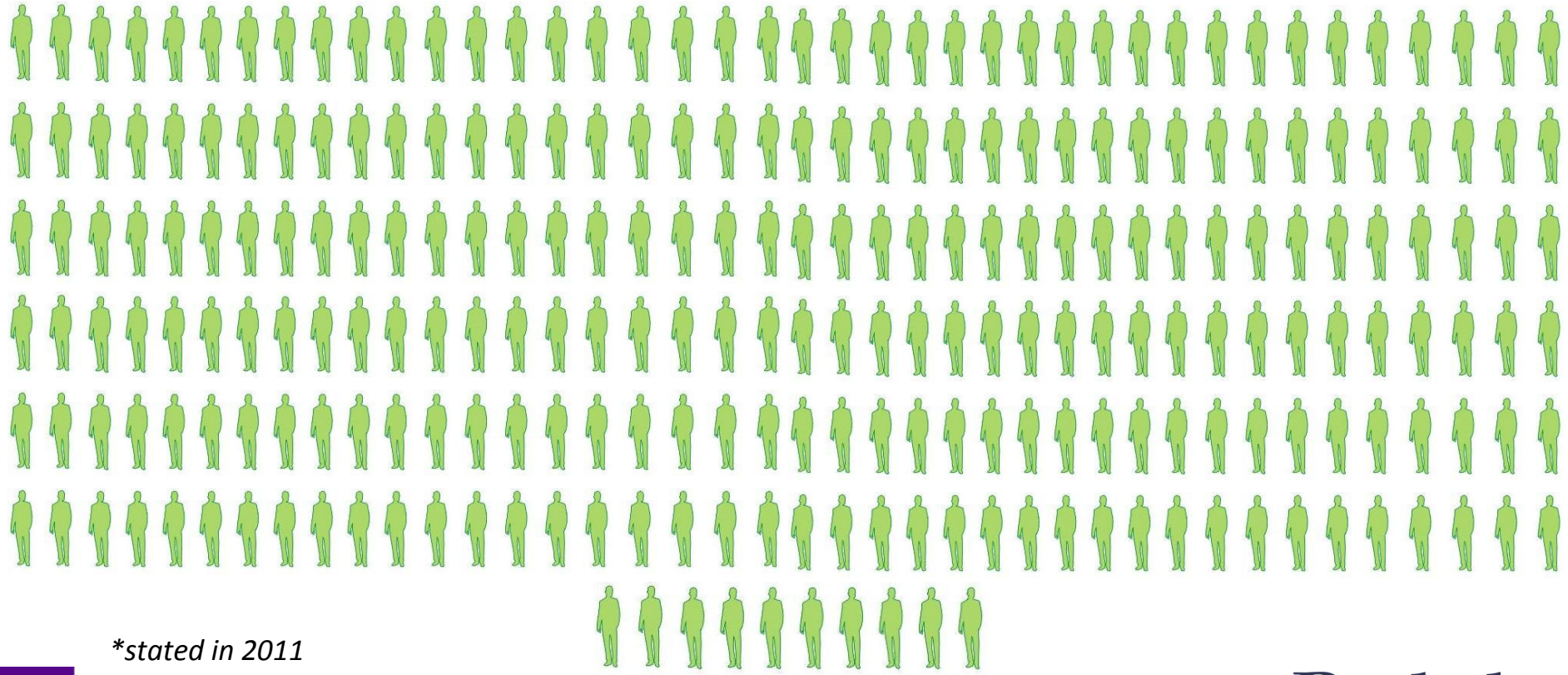
Plans: Bring on 250 new science faculty in the next several years*



**stated in 2011*

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"The most well-endowed and well-funded universities have an RC [research computing] structure that is complex, layerered and dynamic in meeting researchers' needs as they arise."

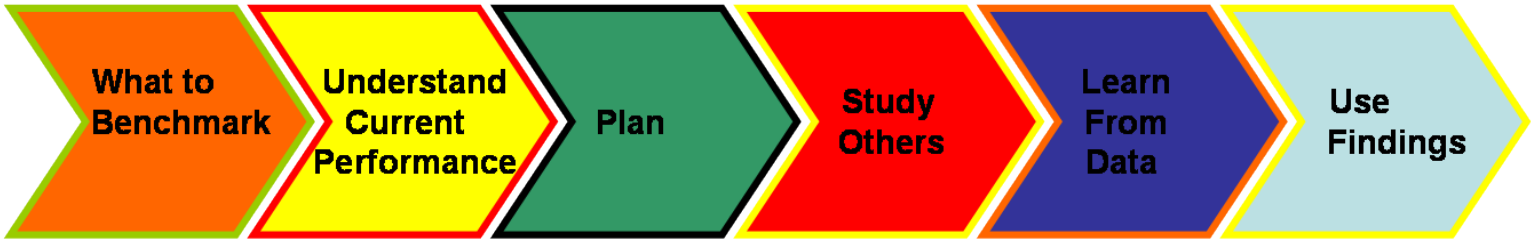
April 2012: Request by the **Senior Vice Provost for Research**

*"Jointly with NYU Libraries, conduct a **gap analysis** of the IT-related services provided for researchers at those institutions from which faculty are likely to be recruited as part of the Science Initiative & from CUSP partner institutions; work with NYU research leadership to determine how best to address identified gaps"*

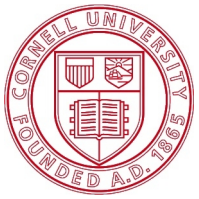
Research Peer Benchmarking Process
Spring/Summer 2012

Phase I

1. Identify the institutions for comparison (“aspirational peers”)
2. Define service areas to benchmark
3. Assign area experts
4. Data Gathering



Step 1: Identify Peer Institutions (14)



Steps 2 and 3:

Define service areas to benchmark

Service Area
Survey Research
Data Finding
Data Management
Restricted Data Facility
Science librarian consulting
HPC Services
Quantitative Data Analysis
GIS
Software Access & Distribution
Data Visualization
Qualitative Data Analysis
Preservation Repositories
Digital Scholarship Support

Assign Experts to each Area (14 SME's)

Step 4: Data Gathering

Information captured in a worksheet:

- Criteria to evaluate the service level provided
- Provider of service (e.g. Library, IT, institute)
- Ranking or comments capturing service level for each institution
- Staffing levels

Service with "Simple" Data Capture

service

Benchmarking criteria

Peer Institutions

QDA support ☆

File Edit View Insert Format Data Tools Help Last edit was made on September 10, 2012 by Samantha Guss

Potential Services	who?	software available in labs	software available for free for personal machines	QDA support
NYU	library, IT	Atlas.ti @ DSS, VCL; Nvivo @ DSS	no (VCL for students)	Yes, via DSS - tutorials, consults on Atlas.ti
Carnegie Mellon		no	no	Not that I can find
Columbia	library, schools/depts	doesn't look like it?	Nvivo - Digital Science Center gives a "license extension"	library offers NVivo workshop - not sure which group http://library.columbia.edu/content/libraryweb/services/works
Cornell	library, institute	Atlas.ti available in Mann Library http://mannlib.cornell.edu/mobile/softw ; http://mapping.cit.cornell.edu/publiclat	no	training via CISER: http://ciser.cornell.edu/beta/workshops/
Duke	library, institute	Atlas.ti installed on HPC servers (via SSRI) http://ssri.duke.edu/high-performance-compute-servers ; NVivo available in the Library (Data Services) http://library.duke.edu/data/about/inde and at SSRI labs http://ssri.duke.edu/computer-lab	no (servers available remotely)	consulting and workshops via SSRI (NVivo only) : http://calendar.duke.edu/events/show?fq=id%3ACAL-8a087089-3442af0d-0134-da217b4e-0000691ademobedework%40mysite.edu
Indiana	institute, schools/depts	5-seat license of Atlas.ti available at ISR: http://www.indiana.edu/~isr/services.sl NVivo NOT available, even though Stat/Math Center consults? http://www.indiana.edu/~statmath/othe	no	Stat/Math Center consults on NVivo: http://www.indiana.edu/~statmath/other/nvivo/index.html
Johns Hopkins		can't find anything	can't find anything	can't find anything
Princeton		can't find anything	can't find anything	can't find anything
Stanford	library	NVivo: on library computers; Atlas.ti in one lab on designated computers https://www.stanford.edu/group/ssds/c bin/drupal/content/where-access-software	no	NVivo: full support at SSDS (Library), including consulting and workshops: http://www.stanford.edu/group/ssds/cgi-bin/drupal/content/what-qualitative-software-do-you-provide-support-0 (plus "how to choose")
UC Berkeley	institute	can't find anything	can't find anything	Atlas.ti workshops through Social Research Workshops http://socialresearch.berkeley.edu/pages/atlas_ti_workshop_
UCSD	library	Nvivo and Atlas.ti available on one station in library SSDS; not available on campus labs	no	can't find anything
University of Michigan	institute, IT	Atlas.ti available through ISR's Pop Studies Center "computing environment"; NVivo on lab computers around campus: http://www.itcs.umich.edu/sites/genera soft12.php	Virtual Sites available to everyone (do they have QDA software? - NVivo as of 2010 launch)	support for Atlas.ti likely through ISR, but details behind a login
University of Pennsylvania	IT, school/dept, library?	Atlas.ti available through SAS Labs http://www.sas.upenn.edu/computing/t	no	NVivo: training through Mixed Methods Research Lab http://www.med.upenn.edu/mmrl/services.shtml (medical school, but available to any affiliates). Looks like Library might have provided training at one time.
University of Toronto	library, IT, institutes	NVivo in several labs, incl the library http://www.oise.utoronto.ca/ec/Home/V http://mdl.library.utoronto.ca/map-and-data-library-computer-lab	no	Education Institute offers NVivo training for fee ($55/$110 for 3 hrs) http://www.oise.utoronto.ca/ec/Home/Workshops_Events/Wo Atlas.ti: Centre for Critical Qual Health Research has a consultant who teaches workshops http://www.ccqhr.utoronto.ca/research/resources
USC (SoCAL)		not available in campus or library labs	no	no

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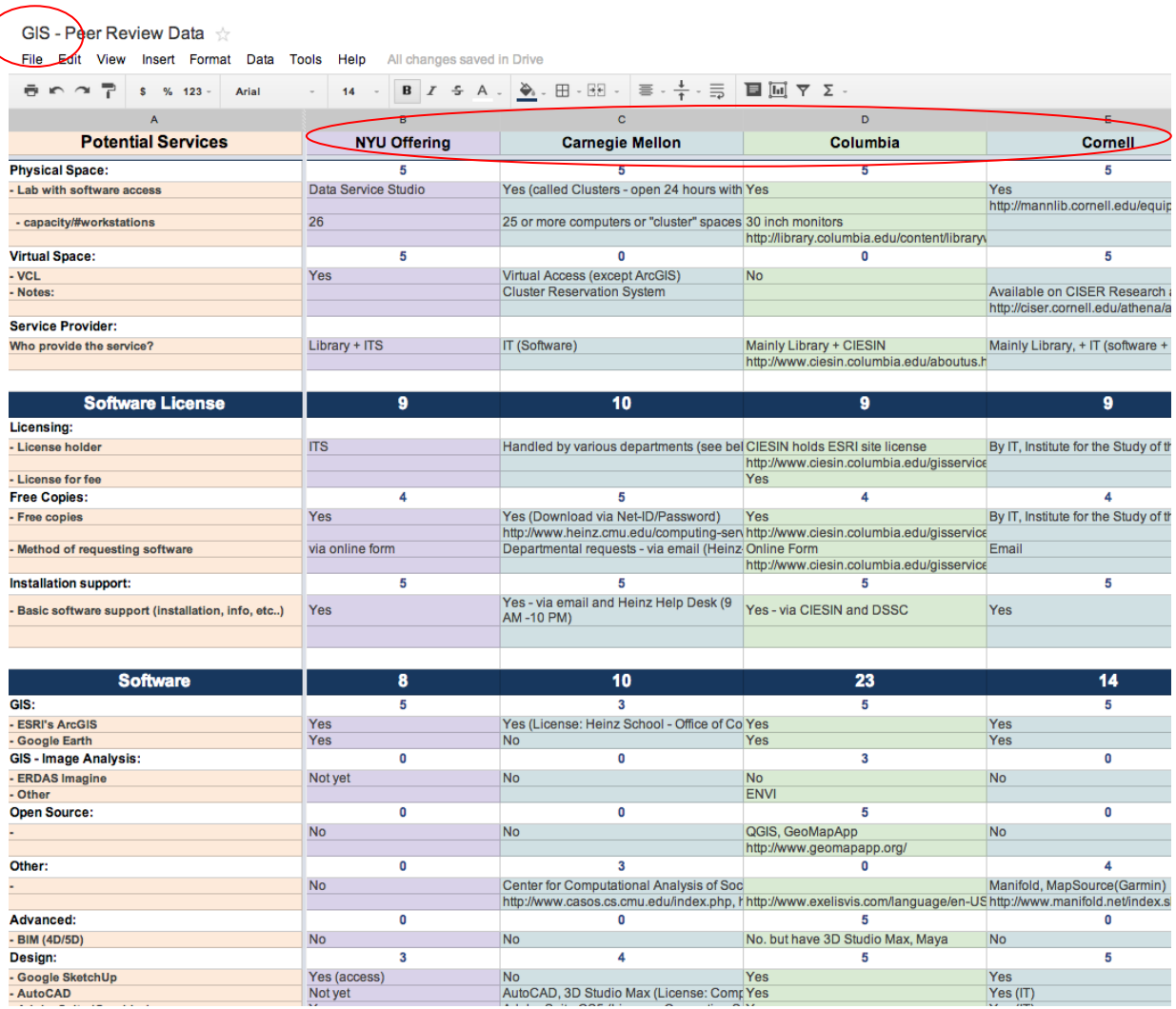
Service with “Complex” Data Capture – page 1

service

Peer Institutions

Benchmarking criteria



GIS - Peer Review Data ☆

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Potential Services	NYU Offering	Carnegie Mellon	Columbia	Cornell
Physical Space:	5	5	5	5
- Lab with software access	Data Service Studio	Yes (called Clusters - open 24 hours with	Yes	Yes
				http://mannlib.cornell.edu/equip
- capacity/#workstations	26	25 or more computers or "cluster" spaces	30 inch monitors	
			http://library.columbia.edu/content/libraryv	
Virtual Space:	5	0	0	5
- VCL	Yes	Virtual Access (except ArcGIS)	No	
- Notes:		Cluster Reservation System		Available on CISER Research
				http://ciser.cornell.edu/athena/a
Service Provider:				
Who provide the service?	Library + ITS	IT (Software)	Mainly Library + CIESIN	Mainly Library, + IT (software +
			http://www.ciesin.columbia.edu/aboutus.h	
Software License	**9**	**10**	**9**	**9**
Licensing:				
- License holder	ITS	Handled by various departments (see bel	CIESIN holds ESRI site license	By IT, Institute for the Study of t
			http://www.ciesin.columbia.edu/gisservice	
- License for fee			Yes	
Free Copies:	4	5	4	4
- Free copies	Yes	Yes (Download via Net-ID/Password)	Yes	By IT, Institute for the Study of t
		http://www.heinz.cmu.edu/computing-serv	http://www.ciesin.columbia.edu/gisservice	
- Method of requesting software	via online form	Departmental requests - via email (Heinz	Online Form	Email
			http://www.ciesin.columbia.edu/gisservice	
Installation support:	5	5	5	5
- Basic software support (installation, info, etc..)	Yes	Yes - via email and Heinz Help Desk (9 AM -10 PM)	Yes - via CIESIN and DSSC	Yes
Software	**8**	**10**	**23**	**14**
GIS:	5	3	5	5
- ESRI's ArcGIS	Yes	Yes (License: Heinz School - Office of Co	Yes	Yes
- Google Earth	Yes	No	Yes	Yes
GIS - Image Analysis:	0	0	3	0
- ERDAS Imagine	Not yet	No	No	No
- Other			ENVI	
Open Source:	0	0	5	0
-	No	No	QGIS, GeoMapApp	No
			http://www.geomapapp.org/	
Other:	0	3	0	4
-	No	Center for Computational Analysis of Soc		Manifold, MapSource(Garmin)
		http://www.casos.cs.cmu.edu/index.php, h	http://www.exelisvis.com/language/en-US	http://www.manifold.net/index.s
Advanced:	0	0	5	0
- BIM (4D/5D)	No	No	No. but have 3D Studio Max, Maya	No
Design:	3	4	5	5
- Google SketchUp	Yes (access)	No	Yes	Yes
- AutoCAD	Not yet	AutoCAD, 3D Studio Max (License: Comp	Yes	Yes (IT)

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Service with “Complex” Data Capture – GIS, page 2

MORE Benchmarking criteria

etc.

Potential Services	NYU Offering	Carnegie Mellon	Columbia	Cornell
Software Support	**10**	**2**	**18**	**17**
Tutorials/Training/Training Resources:	5	0	5	5
- Tutorials/Classes	Yes	No	Yes + topic specific sessions like geocodi	Yes + topic specific sessions via Ma
				http://mannlib.cornell.edu/research-
- Training Materials/Docs	Yes	No	Yes	Yes + GIS Help and Tutorial
				https://confluence.cornell.edu/displ
- External resources for learning	Yes	No	Yes	Yes
- ESRI Virtual Campus	Yes	No	Yes, register via online form - requires Ne	Yes - request via email
			http://library.columbia.edu/indiv/dssc/data	http://www.library.cornell.edu/olinu
Extensive Training:	0	0	0	5
- Long workshops / classes	No	No	No	Yes - ESRI instructor led courses vi
Consultation:	3	0	5	3
- Free Consultation	Yes	No	Yes	Yes
- Support for fee	No	No	Yes - via CIESIN	No
			http://www.ciesin.columbia.edu/gisservice	
Methodological support:	0	0	3	0
- Methodology	No	No	Maybe via CIESIN	No
			http://library.columbia.edu/content/libraryv	
Mapping Services:	0	0	0	0
For faculty/staff/student	No	No	No	No
			http://library.columbia.edu/content/libraryv	
Web presence:	2	2	5	4
- Website	Yes - Data Service Studio, NYU (	Yes	Yes - Library, CIESIN + links to other GIS	Yes + links to other GIS research ce
	http://nyu.libguides.com/dataserv	http://www.cmu.edu/computing/software/a	http://library.columbia.edu/content/libraryv	http://www.library.cornell.edu/olinu
- Blogs / list-serve/News	List-serve	No	Yes - Coumbia University GIS specialists	GIS help and tutorial page
			https://blogs.cul.columbia.edu/culspatial/	
Other Features:				
-				Links to ESRI instructor led courses
Spatial Data	**7**	**0**	**21**	**25**
Spatial Data Repository:	2	0	2	5
- SDR	Yes (Basic / limited)	No	Yes (Download using Net-id/Pswd)	Yes - Cornell University Geospatial
				http://cugir.mannlib.cornell.edu/inde
Spatial Data Collection:	2	0	5	5
- SD Collection	Yes - very basic	No	Yes (Quite good)	Yes (by default)
- Contributed/Research data	under planning	No	Yes	Yes
			http://gis.columbia.edu/datalist.html	
- Customized data	No			Likely
Search and Discovery Environment:	1	0	5	5
- Search/Discovery/Catalog	Very basic via website	No	Yes - seperate calatog	Via libraries and CUGIR
	http://nyu.libguides.com/GIS			
External Spatial Data Resources:	1	0	4	5
- External resources	Limited	No	Yes	Yes - extensive
				http://mannlib.cornell.edu/research-
Map Collection:	1	0	5	5
- Map Collection	No. Links to	No	Yes - Lehman Library Map Collection	Yes - extensive

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Phase II: Summarize information in 1-2 pages

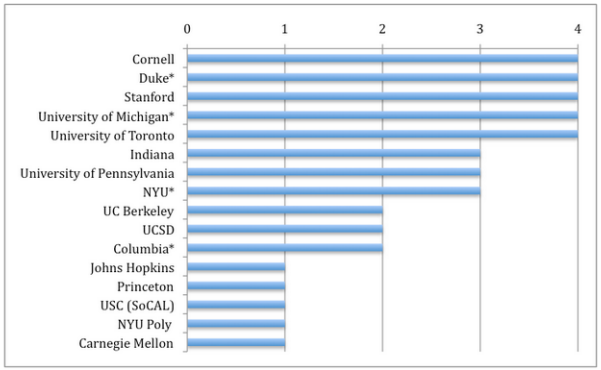
QDA summarized report

QDA Software Support

Samantha Guss

Support for Qualitative Data Analysis (QDA) software involves access to software packages (the most common being Atlas.ti and NVivo) and staff expertise to provide consultation and training workshops on those packages. Sometimes an institution will employ highly trained qualitative research specialists to provide training in methods that also covers use of the software. Others provide introductions to software use without covering methodology (NYU falls into this category). Others have only limited access to software with no training, or do not provide training on a regular basis. Still others provide no software, training, or support at all – one major reason for this is that not every institution will have researchers doing qualitative work – it depends on the focus of various departments, the focus of the school at large, and many many other factors. We should keep this in mind when looking at the "rankings."

Tiers



Tier 4 (highest): The institution provides QDA software in computer labs (often multiple software packages) and offers consultation and workshops at a high level, usually by PhDs or researchers specifically trained in qualitative methods. These workshops often cover qualitative methodology as well as software use.
Tier 3: The institution has some QDA software available in computer labs, but probably only one package. They offer consultation and workshops, but at a more introductory level. Staff training is unclear.

Tier 2: The institution offers access to one QDA software package OR offers some limited training in one software package.
Tier 1 (lowest): No evidence of QDA software access or support.
*** indicates** QDA software available virtually (for example, NYU's Virtual Computer Lab)

Who provides the service?

QDA support is often provided by libraries and information technology departments, but is also found within schools or departments and sometimes in interdisciplinary research institutes. Many institutions have several points of service for QDA software support.

		Library	IT	School(s)/Department(s)	Institute(s)
Cornell	Tier 4	X			X
Duke	Tier 4	X			X
Stanford	Tier 4	X			
University of Michigan	Tier 4		X		X
University of Toronto	Tier 4	X	X		X
Indiana	Tier 3			X	X
University of Pennsylvania	Tier 3		X	X	
NYU	**Tier 3**	**X**	**X**		
UC Berkeley	Tier 2				X
UCSD	Tier 2	X			
Columbia	Tier 2	X		X	
Johns Hopkins	Tier 1				
Princeton	Tier 1				
USC (SoCAL)	Tier 1				
NYU Poly	Tier 1				
Carnegie Mellon	Tier 1				

Room to improve
NYU provides access to both Atlas.ti and NVivo (limited) and training and consultation for Atlas.ti. To improve our service, we should continue to expand that software access, but more importantly, our staff capability for high-level consultation and training in both packages.

Also worth noting is that none of our peers provide free copies of QDA software for installation on personal machines.

GIS summarized report

Research Peer Benchmark Analysis: GIS Services

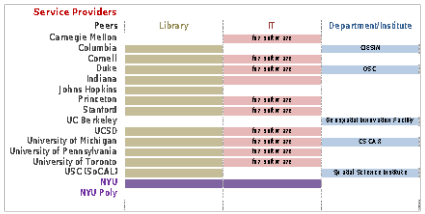
DSS conducted website review of 14 peers of NYU (+NYU-Poly) for centralized GIS services. Various aspects of the GIS services were researched, compared and rated with respect to services provided at NYU and NYU Poly. (Tiers include 1 being lowest level of service and 4 being highest level of service). The following criteria were used to rate and compare GIS services: *facility, software licensing, software types, software support, spatial data and full time staff /expertise*. Please note that NYU Poly is not explicitly discussed in the summary as it falls below the four Tiers in almost all criteria. The website review reveals following information:

GIS Services Providers:

GIS Services are provided by mainly three types of entities: Library, IT and/or Department/Institute.

For the most institutions, the centralized GIS services are provided via Library in conjunction with software access via IT, while Columbia, Duke, U. Michigan and USC have departments/research institutes that provide GIS services in conjunction with Library or IT or both. UC Berkeley provides GIS services via Geospatial Innovation Facility.

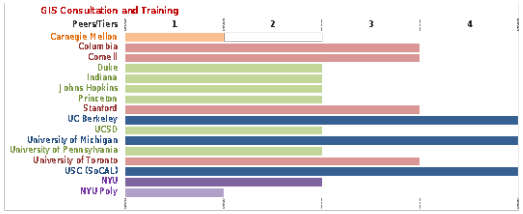
Highlight:
Institutions with services supported via departments or institutes have more dedicated and advanced resources to support GIS services.



GIS Consultation and Training:

This is the key category of GIS services, and was analyzed with several sub-categories namely:
Tutorials/classes (1-1.5 hour classes), tutorial documentation, access to ESRI's Virtual Classes, access to other online resources for learning GIS, 2+ hour workshops, free consultations, support for fee, methodological support (concepts beyond just learning a software e.g. How to do spatial research?), mapping service for faculty, web presence (dedicated website, blogs, list-serve news,..), and other features ..

'UC Berkeley, U. Michigan and USC have excelled in all the above sub-categories. Columbia, Cornell, Stanford and U. Toronto – all have better web presence than NYU. Also, they have either suppot for methodobgy, suppot for fee and/or longer workshops, which give them an edge over NYU's GIS services.

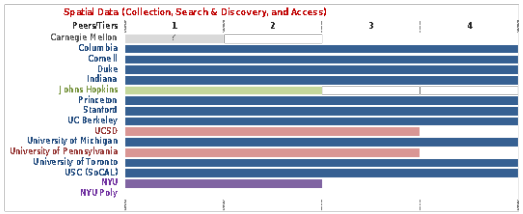


Despite NYU is in Tier 2, it is in the lower scale than its peers (Duke, Indiana, Johns Hopkins and UCSD) in the same Tier 2 except U. Penn. Carnegie Mellon is at the lowest scale along with NYU Poly.

Highlight: Staff is the limiting factor for NYU to meet increasing demand for consultations, training levels and offerings to match Tier 4 institutions, which is the core of the GIS services.

Spatial Data: Collection, Search & Discovery, and Access

This is another key category of GIS services, and was analyzed with several sub-categories namely:
Availability of Spatial Data Repository (SDR), active spatial data collection (includes contributed data from researchers and customized data for patrons), dedicated and robust search & discovery environment, external spatial resources and map collection.

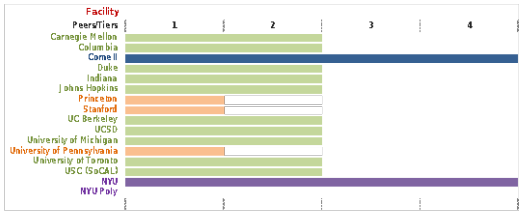


Majority of the institutions except Carnegie Mellon, Johns Hopkins and NYU, has a very good standing in this category. UCSD and U. Penn do not have SDR, but have great search & discovery environment, external spatial data resources and/or great map collection.

Highlight: NYU has limited collection, rudimentary search & discovery environment, and very basic external spatial data resources webpage.

Facility:

Dedicated physical space like computer lab, and virtual computer lab (VCL) or clusters are important components of GIS services.



'NYU and Cornell have both computer lab and VCL/cluster access for GIS software, while most institutions have decent size dedicated computer labs. Princeton U., Stanford and U. Penn have computer lab with 7 or fewer workstations.

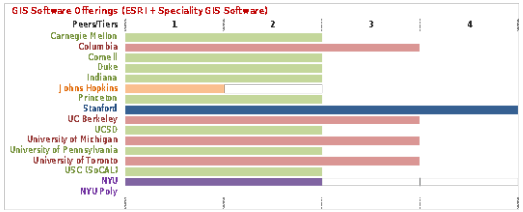
Highlight:
VCL or Cluster access is critical with current cloud computing trends and NYU has a slight edge over its peers.

Primary GIS software (ESRI) and Other Specialty GIS Software Offerings:

GIS has an extremely vast field of applications and disciplines. Institutions that provide a variety of GIS products that can do specific and specialized analysis are considered to have more resources and expertise in the GIS field. For this summary report, GIS software is categorized as ArcGIS (ESRI), Image Analysis, Open Source, Advanced GIS, Design, and other types.

Almost all institutions including NYU distributes free ESRI software, (which is the market driver), and installation suppot to faculty, students and staff, except U. Penn, which only provides information for faculty for how to obtain free student copies from ESRI.

On the other hand, Stanford, Columbia, UC Berkeley, U. Michigan and U. Toronto have aced the type of GIS software category. Johns Hopkins provides the basic ESRI software while the remaining 9 institutions including NYU hold Tier 2.



Highlight: Carnegie Mellon, Stanford and U. Toronto distribute the software via download. NYU should aim for such automated download method of distribution.

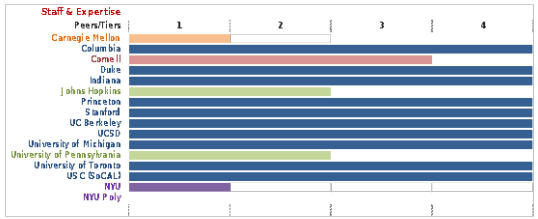
NYU has a few software (with limited licenses) lined up for purchase in the upcoming semester, which will put NYU in Tier 3. However, with limited staff, the suppoit will be extremely limited.

Staff / Expertise:

The primary difference in the Tier levels is indicated by staffing levels. Staff (full-time) with necessary expertise and title defines the nature and depth of GIS services provided in an institution. In a Tier 4 institution, generally the following expertise to constitute a good team for GIS services: *GIS Expert, GIS Metadata Librarian, GIS (Spatial Data) Librarian, GIS App. Developer, and a Map Librarian.*

A vast majority of our peer institutions falls in Tier 4, and have either a robust team and / or an entire departmental staff to support advance GIS services. Johns Hopkins and U.Penn. fall in Tier 2 with more than 2 full time staff and part of Data Services librarian. NYU falls at the most bottom category i.e. Tier 1 with a minimal staffing (1 GIS expert +0.35 Data librarian).

With respect to GIS Librarian staff - Columbia, Cornell, Duke, Indiana, Princeton and U. Toronto have at least one GIS Librarian on board. Stanford has a Geospatial Manager and UCSD has a GIS Coordinator – both housed within their respective libraries and are equivalent to GIS Librarian positions. U. Michigan has three Spatial and Numeric Data librarians. UC Berkeley provides GIS services via Geospatial Innovation Facility and USC provides GIS Services via Spatial Science Institute.



Carnegie Mellon, Johns Hopkins, U. Penn and NYU do not have a GIS Librarian or equivalent staff.

Highlight: NYU needs more staff - at least a full-time GIS librarian to start with.

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Next Step: Standardize for consistency

Standardize information into 4 Tiers

Tier	Description	Institutions
4	• Characteristic 1 • Characteristic 2 • etc.	List of Peer institutions with these characteristics
3	• Characteristic 1 • Characteristic 2 • etc.	List of Peer institutions with these characteristics
2	• Characteristic 1 • Characteristic 1 • etc.	List of Peer institutions with these characteristics
1	• Characteristic 1 • Characteristic 2 • etc.	List of Peer institutions with these characteristics

RESEARCH INFRASTRUCTURE:
NAME OF SERVICE

Description

Description

Description of service

Benchmarking Criteria

Criteria

- Criterion 1
- Criterion 2
- Criterion 3
- etc.

Summary of Findings

Findings

Tier	Description	Institutions
4	• characteristic 1 • characteristic 2 • etc.	List of institutions that are Tier 4
3	• characteristic 1 • characteristic 2 • etc.	List of institutions that are Tier 3
2	• characteristic 1 • characteristic 2 • etc.	List of institutions that are Tier 2
1	• characteristic 1 • characteristic 2 • etc.	List of institutions that are Tier 1

Suggestions/Recommendations for NYU: XXX

Recommendations

To remain Tier 2	• Action 1 • etc.
To move to Tier 3	• Action 1 • Action 2 • etc.
To move to Tier 4	• Action 1 • Action 2 • Action 3 • etc

QDA Final Analysis

RESEARCH INFRASTRUCTURE: QUALITATIVE DATA ANALYSIS SUPPORT

Description

Support for Qualitative Data Analysis (QDA) involves access to QDA software packages (the most common being Atlas.ti and NVivo) and staff expertise to provide consultation and training workshops on those packages and, in some cases, methods.

Benchmarking Criteria

- Consistent access to software (Nvivo, Atlas.ti)
- Consultation services
- Workshops (consistency and level)
- Amount/type of staff training

Summary of Findings

Tier	Description	Institutions
4	• QDA software available in labs (multiple packages) • High-level consultation and workshops (incl. methodology) • Staff: PhD's or researchers trained in qualitative methods	Cornell, Duke, Stanford, Michigan, Toronto
3	• QDA software available in labs (multiple packages) • Mid-level consultation and workshops offered (multiple packages & functions, but no methodology) • Staff has strong training in QDA software (multiple packages)	No Peer Institutions in Tier 3
2	• QDA software available in labs (one package) • Intro-level consultations and workshops • <1 FTE supporting QDA; staff has limited training (currently NYU has ~0.1 FTE + minimal student assistant hours)	Berkeley, UCSD, Columbia*, **NYU***, Indiana, Penn
1	• No evidence of QDA software or support provided	Carnegie Mellon, Princeton, USC, Johns Hopkins, **NYU Poly**
	**Indicates QDA software available virtually, e.g. NYU's VCL*	

Suggestions/Recommendations for NYU: XXX

To remain Tier 2	• Xxx xxx
To move to Tier 3	• Xxx xxx
To move to Tier 4	• xxx xxx • xxx xxx • xxx xxx

NEW YORK UNIVERSITY

Berkeley
UNIVERSITY OF CALIFORNIA

GIS Final Analysis

RESEARCH INFRASTRUCTURE: GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Description

GIS allows faculty, staff and students to view, understand, question, interpret, and visualize spatial data in many ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts. GIS can be applied across many fields of study to enhance learning and teaching—including but not limited to urban planning, archaeology, history, public health, politics, marketing, environmental studies, transportation, facilities management, and real estate. (ESRI).

Benchmarking Criteria

- GIS consultation and training
- Spatial data
- Facility
- Software Offerings
- Staff/Expertise

Summary of Findings

Tier	Description	Institutions
4	• Expansive software, walk-in facility with workstations • Strong consultation, methodological support; advanced instruction • Active spatial collection, robust search/discovery • GIS is a leading service/strength of the institution • Deep bench of staff: GIS librarian, experts, metadata lib, app dev., etc.	Columbia, Berkeley, Michigan
3	• At least 3 of the following criteria: expansive list of software; walk-in facility with workstations; strong consultation; methodological support; advanced instruction; active spatial collection; robust search/discovery • Sufficient staff to provide a full service including 2 or more of the following: GIS librarian, GIS expert, GIS Metadata Librarian, App. Developer, etc.	Cornell, Duke, Indiana, Stanford, UCSD, Toronto, USC
2	• Moderate list of software, walk-in facility with workstations • Low consultation/no methodological support; intro level instruction • May have spatial data collection or basic search/discovery • Minimal staff; limited range of function (e.g. GIS expert only)	NYU, Penn, Johns Hopkins, CMU
1	• Limited or no software/support; no facility • No SDR • No or extremely inadequate staff	NYU Poly

Suggestions/Recommendations for NYU: XXX

To remain Tier 2	• xxx
To move to Tier 3	• xxx • xxx • xxx

NEW YORK UNIVERSITY

Berkeley
UNIVERSITY OF CALIFORNIA

Round Robin Presentations

Response to Original Request

Dean of the Libraries and VP of ITS presented fndings and recommendations to Sr. Vice Provost for Research and Research Deans

Berkeley Context

- New Leadership
  - President of UC System
  - Chancellor of Berkeley
  - CIO

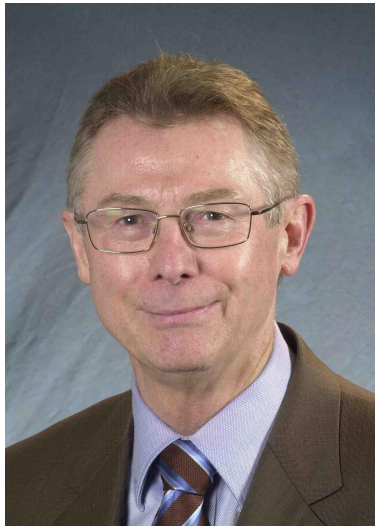
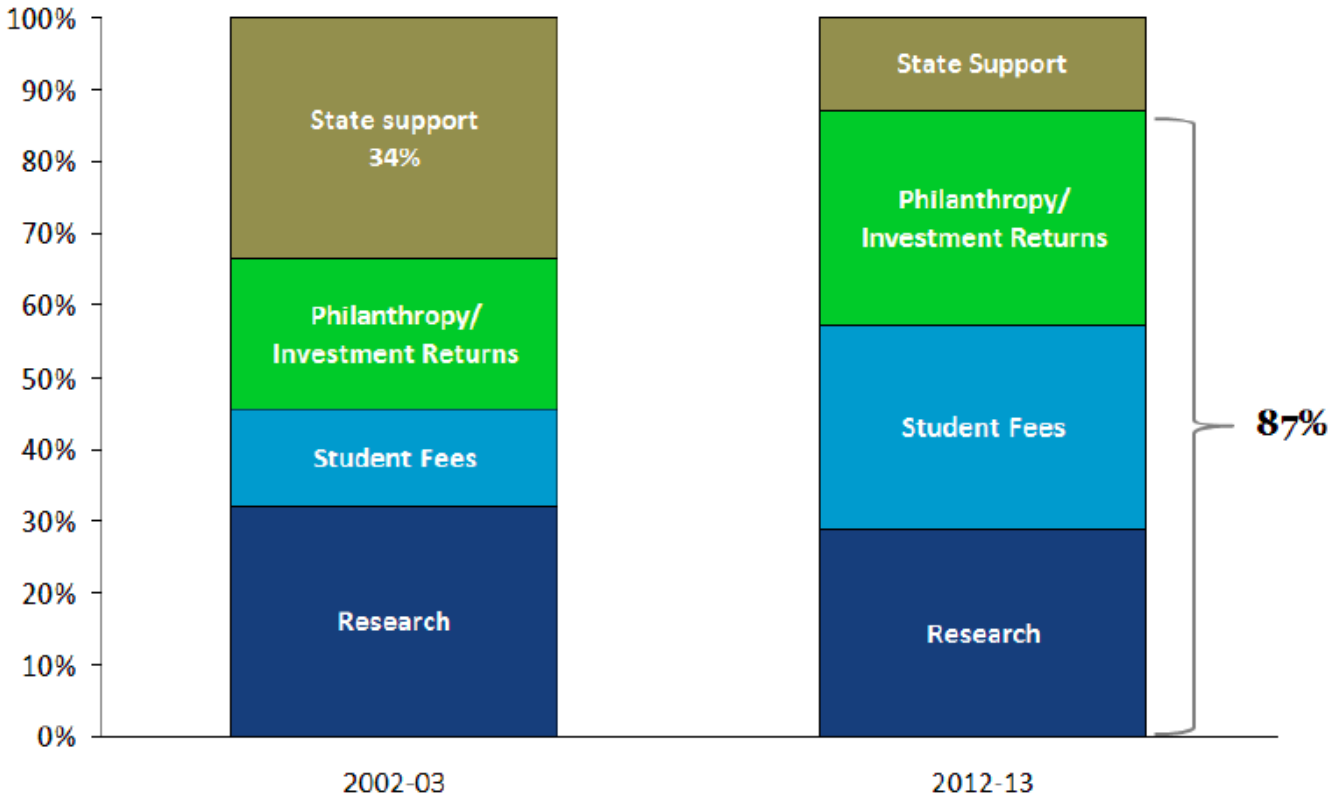


Figure 1. Funding sources for UC Berkeley have changed dramatically.



John Wilton, Vice Chancellor, Administration and Finance, UC Berkeley
Time is not on our side (http://bit.ly/1gO7gqb)

Berkeley Objective

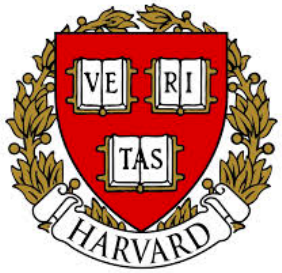
Ensure UC Berkeley maintains the highest quality services to support research and teaching by:

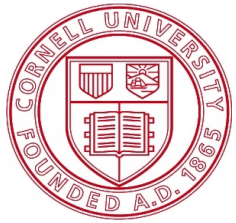
- Benchmarking Berkeley technology services with peer institutions
- Developing a set of recommendations around future resource realignment and investments
- Fostering collaboration and a shared understanding across domains and service areas

Process

Define	Research	Share
Identify Peer Institutions	Gather Benchmarking Data from University Websites	Narrative Summary of Research Findings
Define Service Areas	Record Data in Worksheets	Group Presentation & Discussion
Assign Researchers	Followup Phone/Email Interviews	One Page Executive Summary

Berkeley Peer Institutions





Process Timeline

Phase 1 - Aug - Sep

- Identify institutions for comparison "aspirational peers"
- Define service areas to benchmark
- Assign staff experts
- Data gather (mainly via web) on peers - Deep Dive

Phase 2 - Oct - Nov

- Summarize information in 1-2 pages
- Present 2 pagers to the group for feedback
- Decide on Deeper Dives (interviews)
- Present findings to group and key internal stakeholders and gather additional questions for final analysis

Phase 3 - Nov-Dec

- Normalize results and make resourcing recommendations
- Communicate to stakeholders

Process Timeline

STEP	DATE	STATUS
Identify Peer Institutions	7/2013	completed
Define Service Areas	7/2013	completed
Assign Area Experts	7/2013	completed
Web Data Gathering (comparison worksheets)	7/31-10/10	completed
Preliminary Analysis (2 page summaries) (10 min presentation, 10 min discussion)	7/31-10/10	completed
Phone Interviews & Follow-up Research	10/16-11/15	completed
Final Analysis & Draft Recommendations (10 min presentation, 10 min discussion)	10/16-11/22	completed
Meet with key internal stakeholder to refine recommendations	12/2013 - 1/2014	in progress

Simple Data Capture

Peer Institutions

Benchmarking criteria

Criteria	Berkeley	Stanford	Columbia	UCSD Ratings	MIT Ratings	NYU	NYU Notes	UCLA Ratings
Portfolio/Program Management	3 to 4	3 to 4	1					3 or 4
Ecosystem Integration (Portal Integration, Online Results Access, Automated Data Import from Registrar/SIS)	3 to 4	1 to 2	3					1 or 2
Support/Training: (FAQs, email, phone, online documentation/help)	3 to 4	4	3					2
Customization (e.g., questionnaire or report customizations)	1 to 2	4	1 or 2					4
Service Maturity	3 or 4	?	4					3 or 4
Service Delivery Model	2 to 3		4					3 to 4

Peer Benchmarking Report: Course & Program Evaluation

September 27, 2013

Subject Experts

Daphne Ogle, Senior UX Specialist, Project Manager, ETS
Justin Lipp, Senior Instructional Designer, ETS

Description

A set of tools that centralizes the process of evaluating faculty teaching on campus. The evaluation service may also include evaluation instrument creation, student access to complete the results when choosing classes and detailed results reporting for appropriate campus audiences.

Berkeley Services for Context

Current scenario: Decentralized at school/department level, some have online solutions but many do paper. There is little sharing of evaluation instruments making comparison reporting challenging to impossible.

Future scenario: ETS has run pilots of a centrally supported online solution (based on Sakai EvalSys) for three semesters. Based on this, a new system is being implemented, Blue by Explorance, for an initial small rollout in Fall 2013. Part of initiative is building base instruments shared across the campus to enable richer comparison reporting along with EDW integration enabling mashing up CE data and other campus data like student demographics, GPA, class size, etc.

Program/Portfolio Management

Sub-Criteria: Full description of service, rationalization for why evaluation process is important, service governance description, info on how evaluations can be improved

Tier 1: Full description of service, rationalization for why evaluation process is important, service governance description, information on how evaluations might be improved
Tier 2: Detailed service description in a single location with limited additional supporting information (e.g., governance, evaluation importance, evaluation improvement info)
Tier 3: Minimal service description, perhaps disparately provided or not well curated (e.g., broken links, out-of-date info).
Tier 4: No information available

Tier 1 (robust/exemplary)	Tier 2 (strong)	Tier 3 (some)	Tier 4 (minimal/none)
MIchigan, Harvard	Virginia, Columbia, MIT	Stanford, UCSD, UCLA	NYU, Berkeley

Observations

- Surprised how many didn't list this service in their IT service catalog. Course evaluation is a still-evolving area of IT services.
- The differentiator between 2 and 3 for this criterion is very subjective and would benefit from a deeper dive.

Ecosystem Integration

Sub-Criteria: Integrated with SIS, mapping evaluations to courses. Plus evaluation and reports can be accessed through LMS and/or portal and reports available via schedule of courses.

Tier 1: Fully integrated with SIS, mapping evaluations to courses. Plus evaluation and reports can be accessed through LMS and/or portal AND reports are available through schedule of courses.
Tier 2: Fully integrated with SIS, mapping evaluations to courses. May not have integration with LMS, portal or schedule of courses (doesn't have all).
Tier 3: Manual mapping of evaluations to course data, some manual report distribution, but automated evaluation delivery and communications.
Tier 4: No integration with campus ecosystem

Tier 1 (robust/exemplary)	Tier 2 (strong)	Tier 3 (some)	Tier 4 (minimal/none)
Michigan, Virginia	Stanford, Harvard, UCLA, UCSD,	Berkeley, MIT*, Columbia	NYU

Observations

- Most schools provision course and student data to support evaluation creation but not clear how deep the integration is to the SIS system without deeper dive.
- All systems have email notification and reminders as part of the process but hard to know if its an integrated service.
- Schools using Eval Sys are by default integrated with LMS.
- Internal knowledge of Berkeley process helped to define the elements of Tier 3. That said, to end-users system appears to be mostly automated.
- *MIT does not have sufficient info present about how courses are provisioned, and results are shared through the service website (e.g., standalone). This could be higher if they do automatic provisioning.

Support & Documentation

Sub Criteria: Provides robust documentation on the overall evaluation process and system. Also provides robust information about pedagogical and survey development service.

Tier 1: Provides robust documentation on the overall process and system. Also provides robust information about pedagogical and survey development service.
Tier 2: Provides some overall service and pedagogical documentation, but perhaps limited in areas described above.
Tier 3: Provides minimal overall service and pedagogical documentation. Also perhaps poorly curated/missing basic information.
Tier 4: Provides no information about system or survey development service.

Tier 1	Tier 2	Tier 3	Tier 4

NEW YORK UNIVERSITY
Berkeley UNIVERSITY OF CALIFORNIA

Register/Search for Courses

Search for classes and register for courses during your pass time.

View Financial Aid

Access your financial aid information through MyAwards. To return to the main myucdavis site from MyAwards, click the myucdavis name on the blue menu bar at the top of the MyAwards page.

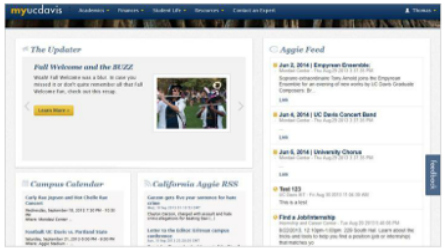
View Pass Times

Check your appointment time to register for courses.

Pay Tuition

Check your account balance, make a payment, view your payment history, set up automatic monthly payments, and more using this direct link to MyBill. To return to the main myucdavis site from MyBill, click the myucdavis name on the blue menu bar at the top of the MyBill page.

Below the "Fold"



The Updater

Check the "The Updater" for student life articles, announcements, news, activities and more.

Calendar

Stay up to date with the student-focused events calendar. You can also sync events with iCal-compatible calendars.

Aggie Feed

This Twitter-like feed aggregates content from departments all over campus to offer a wide array of student-focused news and updates.

The other (older) MyUCDavis (my.ucdavis.edu) portal integrates several UC Davis Web applications and online services into one convenient, secure location. Their basic tutorial (http://iet.ucdavis.edu/computing/myucdavis_tutorial.cfm) says it "is your link to features and campus services relevant to you as a student, faculty, or staff employee at UC Davis," but it appears that this portal is no longer for students and only used by faculty and staff.

MyUCDavis key features

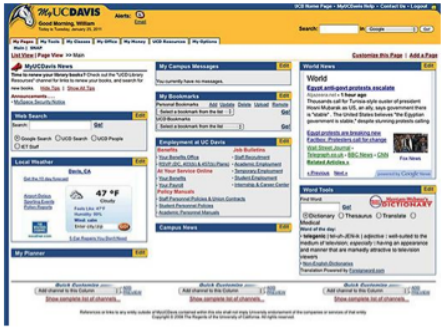
Web-based email
DaFIS and PPS decision support
Material management services, including online ordering

Direct deposit enrollment
At Your Service Online, retirement, and benefits information
News and events
Final grading
Course information
Student registration dashboard
Targeted messages and information

From Tutorial at: http://iet.ucdavis.edu/computing/myucdavis_tutorial.cfm

IET Home ~~MyUCDavis~~ Tutorial

MyUCDavis – a basic tutorial



What is MyUCDavis?
The MyUCDavis web portal is your link to features and campus services relevant to you as a student, faculty, or staff employee at UC Davis. This brief orientation introduces the main features available via MyUCDavis.
MyUCDavis key features

Direct deposit enrollment
At Your Service Online, retirement, and benefits information
News and events
Final grading
Course information
Student registration dashboard
Targeted messages and information

Accessing MyUCDavis

Because MyUCDavis is a secure site, you need to know your LoginID (user name) and Kerberos passphrase to access it.
To obtain a LoginID and Kerberos passphrase, visit computingaccounts.ucdavis.edu. You will need your employee or student ID to set up an account.
Once you know your LoginID and passphrase, return to my.ucdavis.edu, click on "Enter MyUCDavis Now" or "Students, Faculty and Staff," and then sign in at the prompt.
Note: New accounts will need to wait 24 hours for the information to get pushed to MyUCDavis before logging in.

Main Page elements

NEW YORK UNIVERSITY
Berkeley
UNIVERSITY OF CALIFORNIA

Description

Criteria

Findings

Recommendations

Findings & Recommendations: Course & Program Evaluation

November 8, 2013

Subject Experts

Daphne Ogle, Senior UX Specialist, Project Manager, ETS; Justin Lipp, Senior Instructional Designer, ETS

Description: Set of tools that centralizes the process of evaluating faculty teaching on campus. The evaluation service can include evaluation instrument creation, student access to complete the evaluations and on demand results reporting for appropriate audiences.

Benchmarking Criteria (Ideal Institution would fulfill all criteria)

- Program/Portfolio Management: Full description of service, rationalization for why evaluation process is important, service governance description, info provided improving evaluation.
- Ecosystem Integration: Integration with SIS automatically mapping evaluations to courses. Evaluation and reports accessible via LMS, campus portal, and/or schedule of courses.
- Support & Documentation: Provides robust documentation for overall evaluation process and system; also discusses pedagogical and survey development service.
- Questionnaire Customization: Mandatory set of campus questions and evaluation templates are present, and system is flexible enough to allow for customization of questionnaires as appropriate.
- Reporting: Full-featured default and easy-to-define custom reports scalable from individual to program level reporting; aggregation of evaluation data with other disparate campus data; hierarchical level of access provided to staff, faculty, administrators, and students as appropriate.

Summary of Findings

Tier	Description	Institutions
1	Schools distinguished themselves by having well established and clearly articulated services with ubiquitous reporting and systematic ecosystem integrations as standout features.	Michigan, Virginia, Harvard
2	Schools in this Tier exhibited relatively inconsistent/inefficient questionnaire customization, non-ubiquitous reporting access, and/or more	UCSD, Columbia, MIT
3	These schools fell short on basic areas including portfolio info and consistent support/training materials; or as for UCLA, service is widely but not fully available to campus units.	Stanford, UCLA
4	With no such evaluation service at NYU and Berkeley only beginning its rollout, both schools fell short on all criteria.	Berkeley, NYU

Draft Recommendations

- We should consider allowing some student access to evaluation results as it is reported as highly useful by some schools (e.g., Harvard) for students to include evaluation data when deciding on classes. This potentially increases the utility and value of this data collection service for additional purposes for campus. Further, research shows sharing of evaluation data as a carrot for completing evaluations.
- To move to an upper top-tier, Berkeley needs to follow through with the EDW (CalAnswers) integration to aggregate evaluations with varied campus data sources; doing so would make Berkeley a leader in this area, as we have seen little evidence of this type of data use. FERPA does become a concern however. Implementation will require several dedicated positions and coordinated effort among several departments.
- Rankings are likely variable. Sakai schools (Michigan, Virginia, & Columbia) are vulnerable due to shrinking support, but others (Berkeley, NYU & UCLA), are poised for gains as service ramp-up begins or continues.
- Strategic work with CTL is necessary for explaining service value to skeptical members of campus; other campuses (e.g., Columbia) have seen controversy, resulting in a centralized but balkanized service, subject to unit politics. Careful messaging and data-driven decision making are the best mitigation strategies.
- Potential recommendation involving SIS business process challenges...

NYU Services

Research Services
GIS Services
Quantitative Data Support
Survey Research Support
HPC Services
Science Library Services
Qualitative Data Analysis
Data Finding
Data Management
Restricted Data Facility
Software Access and Licensing
Data Visualization
Digital Scholarship
Preservation Repository

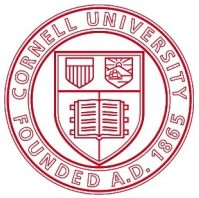
NEW YORK UNIVERSITY

Berkeley
UNIVERSITY OF CALIFORNIA

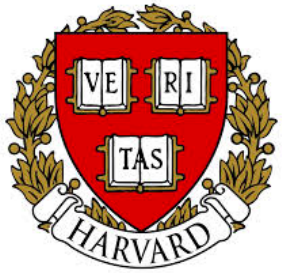
Berkeley Services

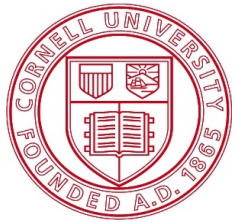
Research Services	Teaching & Learning Services
Research Data Management	Online Courses
Data Analysis (Quantitative & Qualitative)	Learning Management Systems & Support
Survey Research Support	Instructional Content Creation
Data Visualization & GIS	Learning Spaces
Linked Open Data & Semantic Web	ePortfolio Support
Preservation & Archival Services	Technology Enhanced Teaching & Learning
Shared Research Computing (HPC)	Course & Program Evaluation
Museum, Archives & Special Collections	
Research Applications	
Related Services	
Collaboration & Communication	Video & Web Conferencing
Web Publishing	Scholarly Networking
Software Licensing & Distribution	Portals, Dashboards & Aggregators

NYU Peer Institutions



Berkeley Peer Institutions





NEW YORK UNIVERSITY

COLUMBIA UNIVERSITY

Berkeley

UNIVERSITY OF CALIFORNIA

UCSD

NYU/Berkeley Services

NYU	Berkeley
GIS Services	Data Visualization & GIS
HPC Services	Shared Research Computing (HPC)
Survey Research Support	Survey Research Support
Preservation Repository	Preservation & Archival Services
Quantitative/Qualitative Data Support*	Data Analysis (Quantitative & Qualitative)
Software Access and Licensing	Software Licensing & Distribution
Data Management	Research Data Management

**Note: NYU had separate analyses for qualitative and quantitative but the tiering for these institutions were identical*

Project Team Comparisons

NYU

- Strategic Team 6 members (Libraries and ITS)
- Subject Matter Experts – 14 total
- ~1000 person hours

Berkeley

- Strategic Team 5 members (IST, ETS, and Libraries)
- Subject Matter Experts – 40 total (20 core)
- ~ 1800 person hours

Rankings NYU/Berkeley Variance

- 42 total rankings
- 5 that are a two point variance or more

Survey Research

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	4	3
NYU	2	3
Institution 1	3	3
Institution 2	3	3
Institution 3	4	4
Institution 4	1	1

Data Analysis (Quantitative & Qualitative)

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	3	3
NYU	3	2
Institution 1	3	2
Institution 2	1	2
Institution 3	3	4
Institution 4	1	2

Software Licensing & Distribution

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	4	3
NYU	3	2
Institution 1	3	3
Institution 2	2	1
Institution 3	4	3
Institution 4	2	2

GIS

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	1	3
NYU	3	2
Institution 1	1	1
Institution 2	2	1
Institution 3	2	2
Institution 4	1	1

Preservation Services

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	0	4
NYU	3	3
Institution 1	3	2
Institution 2	2	1
Institution 3	1	2
Institution 4	1	3

Data Management

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley/CDL	1	4
NYU	3	2
Institution 1	3	2
Institution 2	1	1
Institution 3	1	2
Institution 4	1	3

Shared Research Computing/HPC

Institution	NYU Assigned Tier (top=1)	Berkeley Assigned Tier (top=1)
Berkeley	1	4
NYU	3	2
Institution 1	4	3
Institution 2	2	3
Institution 3	1	1
Institution 4	3	2

What Went Well

1. Empowered staff
2. Seminar “workshop” sharing
3. Built teams across the organization
4. The “methodology” made criteria and recommendations accessible to stakeholders – it just makes sense!
5. Helped clarify priorities at the institutional level
6. Built a multi-year roadmap of services and initiatives

Challenges

Biases to watch out for and be transparent about:

- Self-flagellation bias
- Grass is always greener bias
- Good web presence bias
- “The Program” bias
- Tiers = scientific bias
- Our service is really good bias

It’s hard work and a lot of it!

Taking this Further?

- The comparative conversations between NYU and Berkeley about how, who, why we did this have been fascinating and helpful.

- Having a common, flexible methodology that a campus can adapt and work on its own while coming together at the right moments with others might really help.

- *Question to Audience*: Would it make sense to build a larger effort around this approach? If so, how?

NYU

NEW YORK UNIVERSITY

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Berkeley

NEW YORK UNIVERSITY

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