arXiv Member Advisory Board Annual Meeting

Oya Y. Rieger
Associate University Librarian
arXiv Program Director

September 2015

Cornell University Library

arXiv.org

Meeting Goals

- Introductions and arXiv Overview
- Beyond 2013-2017 Business Plan
  - Planning for next business cycle
  - Assessment of the current governance and business model (group discussion)
  - Executive session (without Cornell team)
- arXiv and Trends in Repositories, Publishing, and User Behavior
- arXiv Special Projects: Review of Special Projects and Additional Funding Needs & Sources

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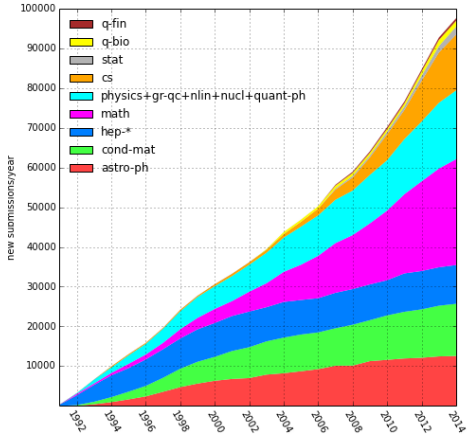
The warm gas atmosphere of the HD 100546 disk seen by Herschel*

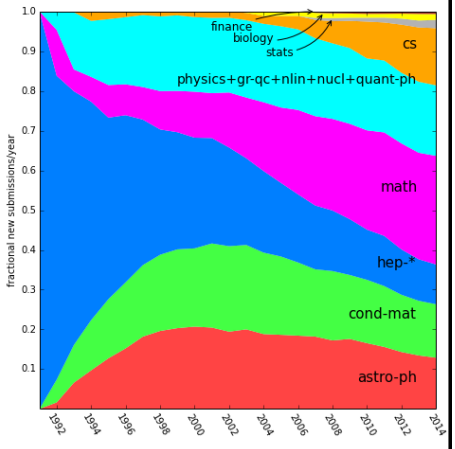
Evidence of a gas-rich, carbon-poor atmosphere?

- **includes 1M+ e-prints**
- **2012**
  - **84,000 new submissions**
  - **64 million downloads**
- **2013**
  - **92,500 new submissions**
  - **67 million downloads**
- **2014**
  - **97,000 new submissions**
  - **90 million downloads***

*** The numbers are sensitive to robot downloads and it is hard to remove all from our numbers so potential significant over counting – we put less effort in cleaning up this data in 2014.**

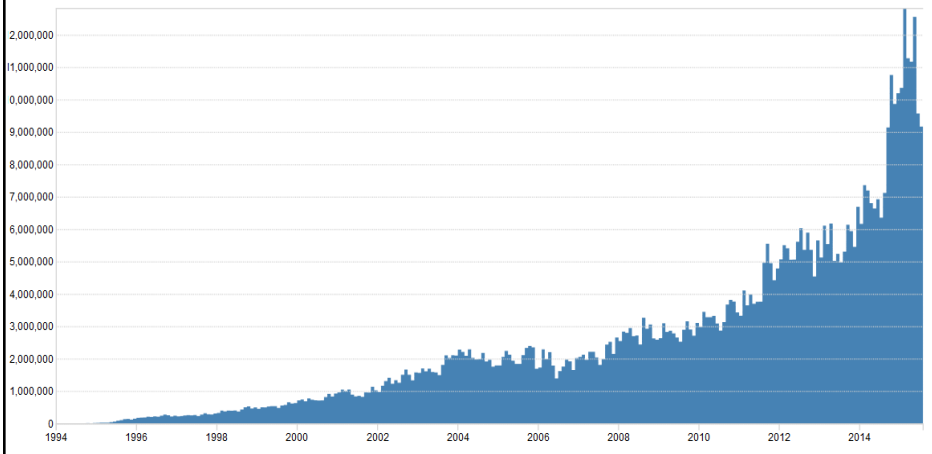
arXiv submission rate statistics





http://arxiv.org/help/stats

arXiv monthly download rates [CSV]



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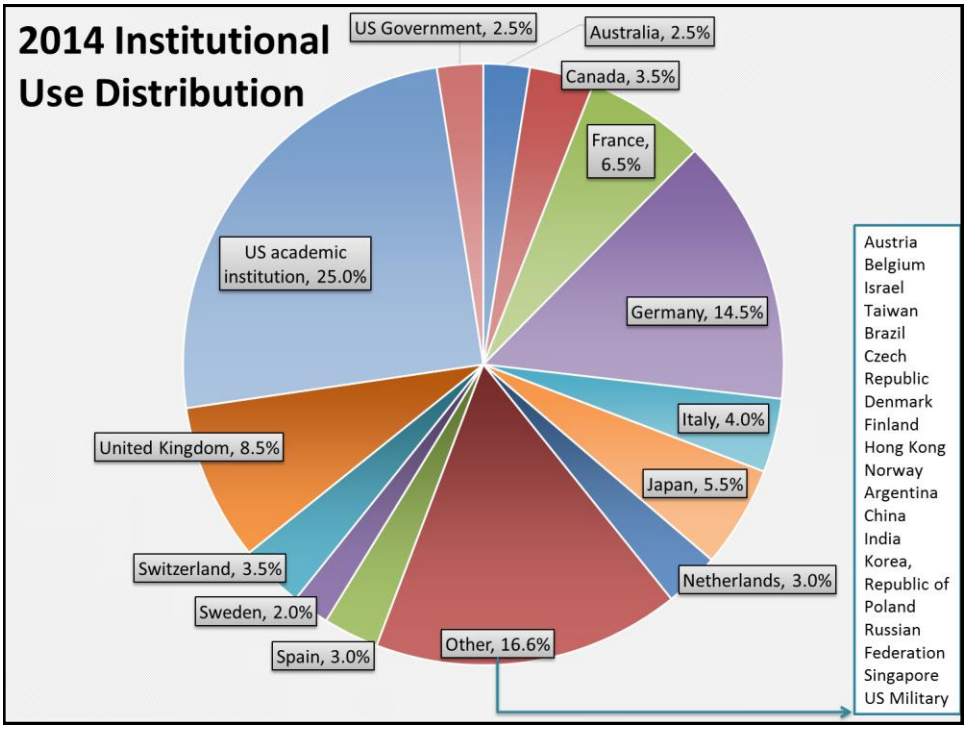
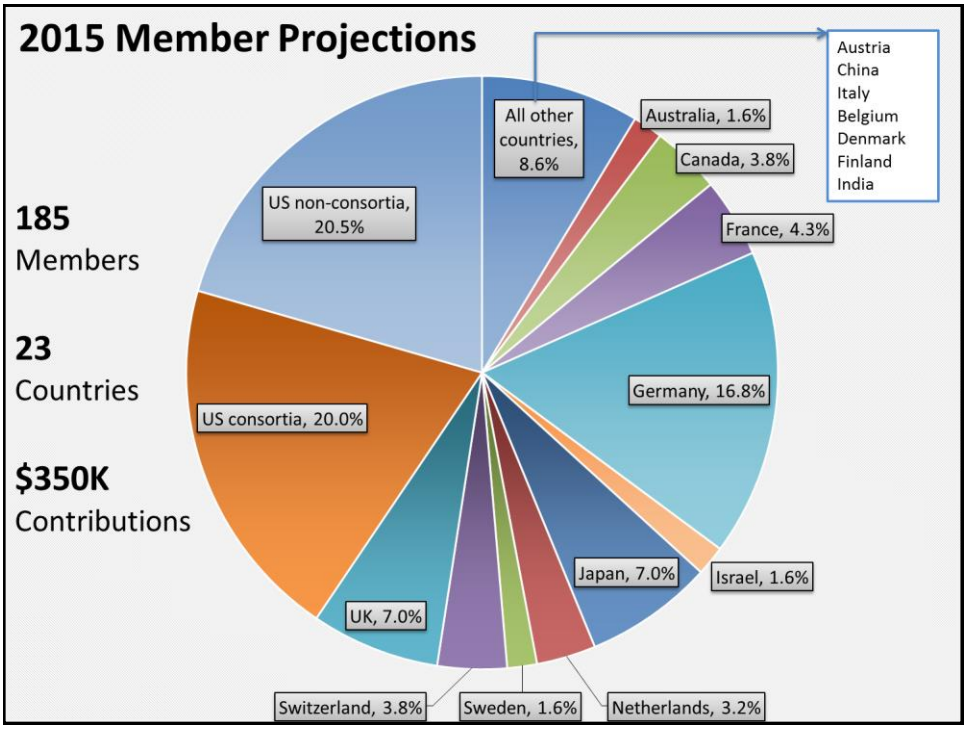
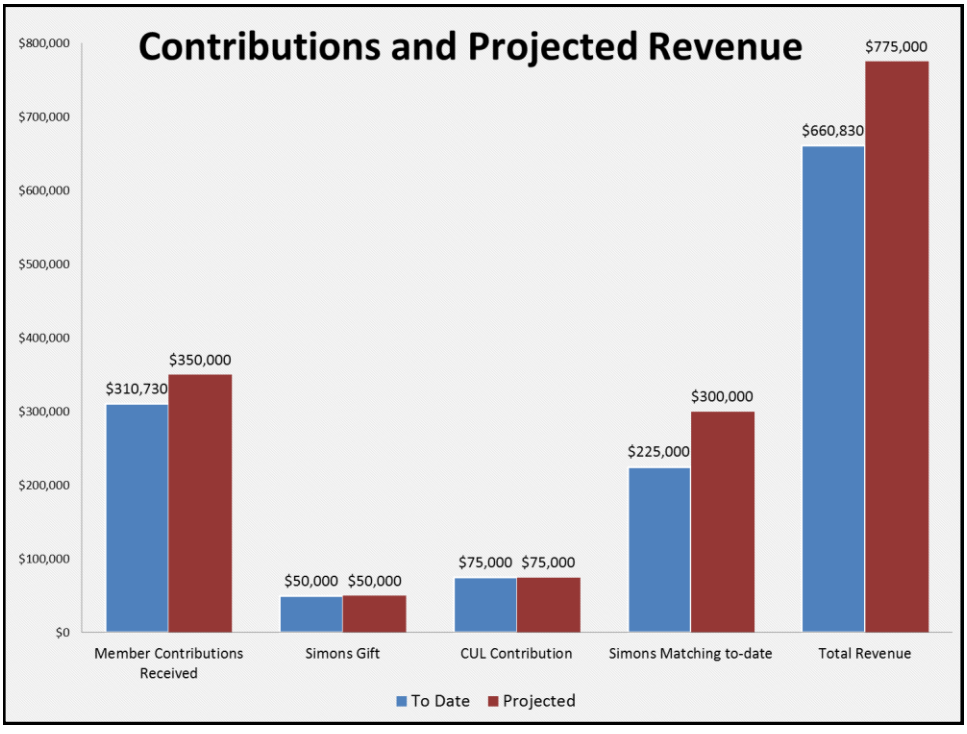
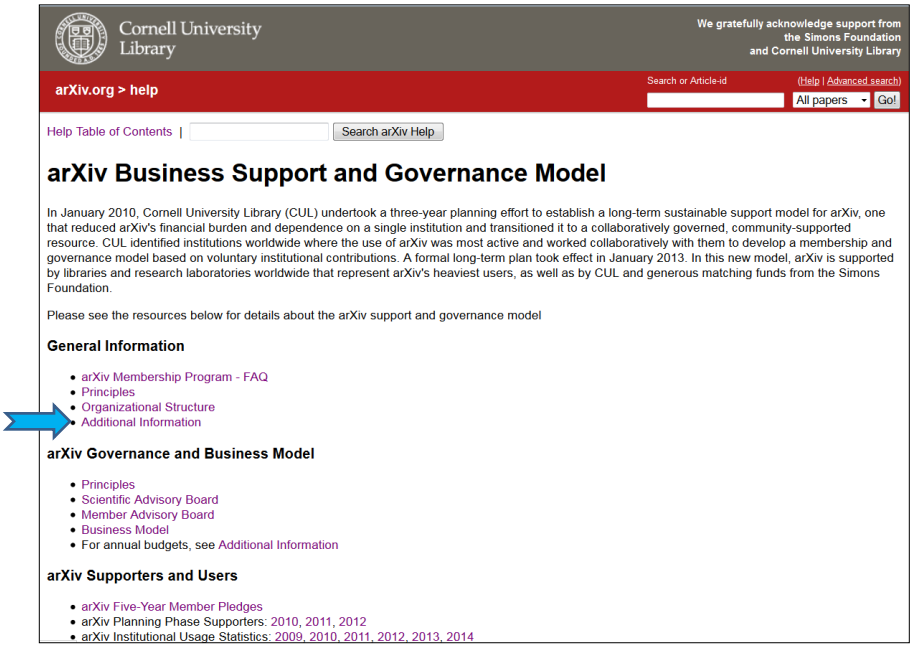



2015 Member Projections
185
Members
23
Countries
$350K
Contributions
All other countries, 8.6%
Austria
China
Italy
Belgium
Denmark
Finland
India
Australia, 1.6%
Canada, 3.8%
France, 4.3%
Germany, 16.8%
Israel, 1.6%
Japan, 7.0%
Netherlands, 3.2%
Sweden, 1.6%
Switzerland, 3.8%
UK, 7.0%
US consortia, 20.0%
US non-consortia, 20.5%


Contributions and Projected Revenue
$800,000
$700,000
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$0
$310,730
$350,000
$50,000
$50,000
$75,000
$75,000
$225,000
$300,000
$660,830
$775,000
Member Contributions Received
Simons Gift
CUL Contribution
Simons Matching to-date
Total Revenue
To Date
Projected



Cornell University Library

We gratefully acknowledge support from the Simons Foundation and Cornell University Library

arXiv.org > help

Search or Article-id (Help | Advanced search) All papers Go!

Help Table of Contents | Search arXiv Help

arXiv Business Support and Governance Model

In January 2010, Cornell University Library (CUL) undertook a three-year planning effort to establish a long-term sustainable support model for arXiv, one that reduced arXiv's financial burden and dependence on a single institution and transitioned it to a collaboratively governed, community-supported resource. CUL identified institutions worldwide where the use of arXiv was most active and worked collaboratively with them to develop a membership and governance model based on voluntary institutional contributions. A formal long-term plan took effect in January 2013. In this new model, arXiv is supported by libraries and research laboratories worldwide that represent arXiv's heaviest users, as well as by CUL and generous matching funds from the Simons Foundation.

Please see the resources below for details about the arXiv support and governance model

General Information

- arXiv Membership Program - FAQ
- Principles
- Organizational Structure
- Additional Information

arXiv Governance and Business Model

- Principles
- Scientific Advisory Board
- Member Advisory Board
- Business Model
- For annual budgets, see Additional Information

arXiv Supporters and Users

- arXiv Five-Year Member Pledges
- arXiv Planning Phase Supporters: 2010, 2011, 2012
- arXiv Institutional Usage Statistics: 2009, 2010, 2011, 2012, 2013, 2014

http://arxiv.org/help/support

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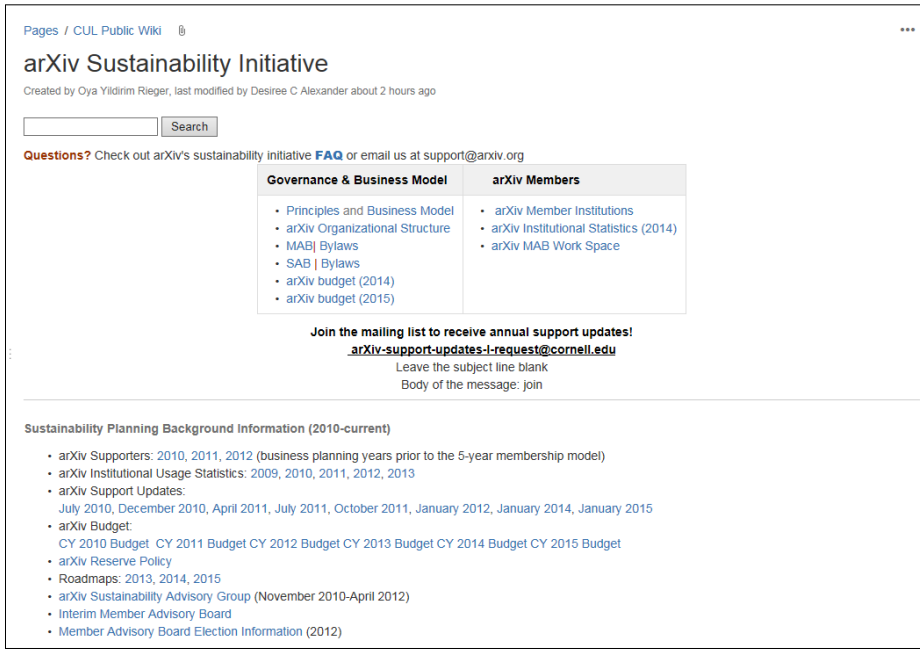

Pages / CUL Public Wiki

arXiv Sustainability Initiative

Created by Oya Yildirim Rieger, last modified by Desiree C Alexander about 2 hours ago

Search

Questions? Check out arXiv's sustainability initiative **FAQ** or email us at support@arxiv.org

Governance & Business Model	arXiv Members
• Principles and Business Model • arXiv Organizational Structure • MAB| Bylaws • SAB	Bylaws • arXiv budget (2014) • arXiv budget (2015)	• arXiv Member Institutions • arXiv Institutional Statistics (2014) • arXiv MAB Work Space

Join the mailing list to receive annual support updates!
arXiv-support-updates-l-request@cornell.edu
Leave the subject line blank
Body of the message: join

Sustainability Planning Background Information (2010-current)

- arXiv Supporters: 2010, 2011, 2012 (business planning years prior to the 5-year membership model)
- arXiv Institutional Usage Statistics: 2009, 2010, 2011, 2012, 2013
- arXiv Support Updates:
  July 2010, December 2010, April 2011, July 2011, October 2011, January 2012, January 2014, January 2015
- arXiv Budget:
  CY 2010 Budget CY 2011 Budget CY 2012 Budget CY 2013 Budget CY 2014 Budget CY 2015 Budget
- arXiv Reserve Policy
- Roadmaps: 2013, 2014, 2015
- arXiv Sustainability Advisory Group (November 2010-April 2012)
- Interim Member Advisory Board
- Member Advisory Board Election Information (2012)

https://confluence.cornell.edu/x/xKSTBw

Business Model, 2013-2017

- Cornell University Library
  - $75,000 per year in support of operational costs
  - in-kind contribution of all indirect costs (37%)
- Simons Foundation
  - $50,000 per year (increases to $100,000 per year in 2016)
  - $300,000 per year matching grant
- Member Institution
  - annual fees within $1,500-3,000 range (based on usage ranking)

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Projected Expenses from 2013-2017 Business Model

Description	2013	2014	2015	2016	2017
Expense[2]					
Staff					
User support (staff)	228,405	236,400	244,680	295,453	305,795
User support (student)	8,581	8,500	9,192	9,514	9,847
Programming & system maintenance	238,669	164,685	170,453	176,415	182,588
Management & administration	61,835	64,000	66,240	68,558	70,958
Subtotal Staff Costs	537,490	473,585	490,565	549,939	569,187
Other Direct Costs					
Server costs[3]	41,700	43,160	44,670	46,235	47,855
Network bandwidth & telephony	1,550	1,605	1,660	1,720	1,720
Staff computers, software & supplies	1,865	1,930	2,000	2,070	2,140
Preservation services	-	-	-	-	
Staff travel	8,280	8,570	8,870	9,180	9,500
Advisory group travel support	20,700	21,425	22,175	22,950	23,755
Consulting for business/governance					
Subtotal Other Direct Costs	74,095	76,690	79,375	82,155	84,970
Total Direct Costs	611,585	550,275	569,940	632,094	654,157
Indirect Costs					
Facilities[4]	67,274	60,530	62,693	69,530	71,957
Department administration & staff support[5]	159,012	143,072	148,184	164,344	170,081
Subtotal Indirect Costs	226,286	203,602	210,878	233,875	242,038
Total Expenses	**837,871**	**753,877**	**780,817**	**865,969**	**896,195**

Governance Model

Cornell University Library (CUL)

- Manages the moderation of submissions and user support
- Operates arXiv's technical infrastructure
- Ensures long-term access
- Establishes and maintains partnerships
- Assumes financial responsibility
- Maintains transparent and open communication
- Provides legal protection

Scientific Advisory Board (SAB)

- Provides advice and guidance pertaining to the intellectual oversight of arXiv
- Oversees arXiv's moderation system
- Reviews the criteria and standards for deposit in arXiv
- Proposes new subject or discipline domains

Member Advisory Board (MAB)

- Advises CUL on issues related to:
  - repository management and development
  - standards implementation & interoperability
  - development priorities
  - business planning
  - outreach and advocacy

arXiv 2015 Organizational Chart @ Cornell University Library

University Librarian *
- Resolve disputes between CUL, MAB, SAB as they relate to CUL's responsibilities
- Determine termination and need for transition strategy

Program Director (0.20 FTE) *
Oya Y. Rieger
- Oversee membership, business planning, & governance
- Participate in identifying technical requirements and setting development priorities
- Facilitate MAB and liaise to SAB
- Represent arXiv in library and open access forums etc.

* CUL indirect contribution

Scientific Director (0.40 FTE)
Chris Myers
- Provide scientific oversight
- Participate in identifying technical requirements and setting development priorities
- Coordinate the development of associated policies with the SAB
- Facilitate SAB & liaise to MAB
- Represent arXiv in scientific forums etc.

* Not yet included in current 5-year budget

Library Membership (0.10 FTE) *
Vacant
- Manage arXiv membership program (invoices, institutional use, information about sustainability program)

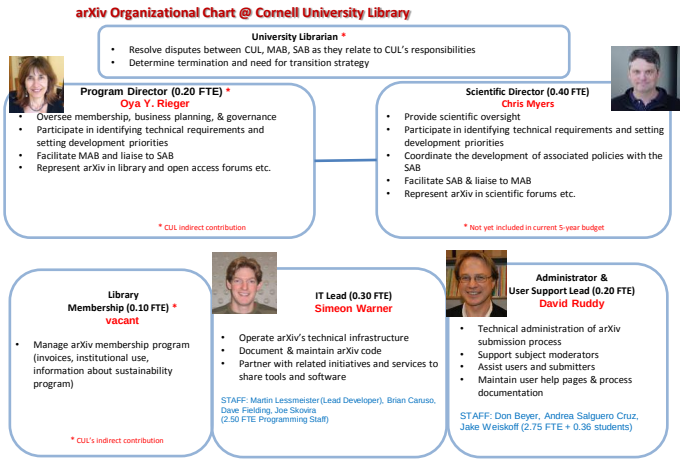
* CUL's indirect contribution

IT Lead (0.30 FTE)
Simeon Warner
- Operate arXiv's technical infrastructure
- Document & maintain arXiv code
- Partner with related initiatives and services to share tools and software

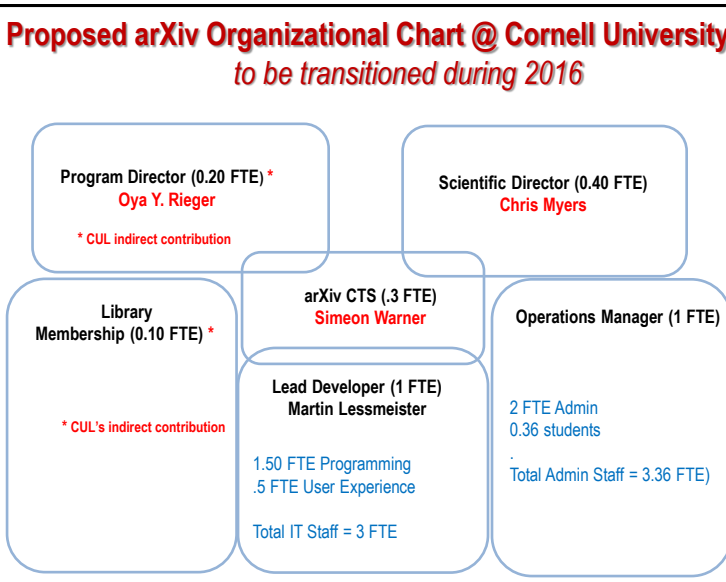
STAFF: Martin Lessmeister (Lead Developer), Brian Caruso, Dave Fielding, Vacant Line
(2.50 FTE Programming Staff)

Administrator & Support Lead (0.20 FTE)
David Ruddy
- Technical administration of arXiv submission process
- Support subject moderators
- Assist users and submitters
- Maintain user help pages & process documentation

STAFF: Operations Manager, Andrea Salguero Cruz, Jake Weiskoff (3 FTE + 0.36 students)_



- Paul Ginsparg
- 150 moderators



Total Staff = 7.36 FTE
Plus indirect-related staffing, e.g., HR, Accounting

arXiv CY2015 MIDYEAR BUDGET					Projected Budget	Midpoint (August)
REVENUE						
	Member contributions				$340,000	$350,000
	Simons Foundation Annual Commitment				$50,000	$50,000
	Simons Foundation Matching Fund				$300,000	$300,000
	Cornell University Library (Direct)				$75,000	$75,000
	TOTAL REVENUE				$765,000	$775,000
EXPENSES						
	Personnel (including benefits)					
		User support	2.5 FTE + 0.50FTE student			
		Programming and system maintenance	2.5 FTE			
		Scientific Director	.40 FTE			
		Management	0.52 FTE			
		Gen-ph moderator	Contract			
				Subtotal Personnel [1]	$653,000	$552,522
	Non-Personnel					
		Servers (physical & virtual), hardware maintenance, storage and backup			$36,000	$44,000
		Network bandwidth and communication			$8,706	$600
		Staff computers, software, supplies and misc. expenses			$3,000	$3,000
		Advisory Board meetings (SAB and MAB) and staff conference travel			$40,000	$40,000
				Subtotal Non-Personnel [2]	$87,706	$87,600
	TOTAL DIRECT EXPENSES				$740,706	$640,122
	Indirect and Volunteer Costs					
		College and department administration, staff support (26% of direct costs)[3]			$192,584	$171,177
		Facilities (11% of direct costs)[4]			$81,478	$72,421
		arXiv moderation (130+ moderators, varying time commitments)			*not tracked*	*not tracked*
				Subtotal Indirect Costs	$274,061	$243,598
	TOTAL EXPENSES (direct + indirect)				$1,014,767	$883,720
	PROJECTED NET CHANGES IN RESERVES (revenue less direct expenses)[5]				$24,294	$134,878
RESERVES						
	Operating Reserves					$200,000
	Development Reserves					$445,000

arXiv CY2016 PROPOSED BUDGET					Projected Budget
REVENUE					
	Member contributions				$350,000
	Simons Foundation Annual Commitment				$100,000
	Simons Foundation Matching Fund				$300,000
	Cornell University Library (Direct)				$75,000
	TOTAL REVENUE				**$825,000**
EXPENSES					
	Personnel (including benefits)				Salary/Benefits
		User Support & Managemen	3 FTE + 0.50FTE student		
		Programming and UX	3 FTE		
		Scientific Director	.40 FTE		
		IT Strategy/Management	.30 FTE		
		Gen-ph Moderator	Contract		
				Subtotal Personnel	$664,000
			Funded by Development Reserve		$200,000
			Main Budget Commitment		**$464,000**
	Non-Personnel				
		Servers (physical & virtual), hardware maintenance, storage and backup			$44,000
		Network bandwidth and communication			$1,000
		Staff computers, software, supplies and misc. expenses			$3,000
		Advisory Board meetings (SAB and MAB) and staff conference travel			$40,000
				Subtotal Non-Personnel	**$88,000**
	TOTAL DIRECT EXPENSES	*not including 37% indirect*			**$752,000**
RESERVES					
	Operating Reserves				$250,000
	Development Reserves				$530,000

Does not include 37% indirect costs.

Budget in a Nutshell

Description	2010	2011	2012	2013	2014	2015	2016
Projected Costs	$312,000	$435,000	$509,000	$503,000	$505,000	$456,000	$552,000
Additional Costs	-	-	-	-	$138,028	$184,000	$200,000
Total Direct Costs	$312,000	$435,000	$509,000	$503,000	$643,000	$640,000	$752,000
Revenue	$383,000	$470,000	$511,000	$770,000	$775,000	$775,000	$825,000
Operating Reserves				$100,000	$150,000	$200,000	$250,000
Development Reserves				$277,000	$360,000	$445,000	$468,000

Additional costs for 0.4 FTE Scientific Director, 1 FTE Programmer, and Gen-Phy Mod

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Reserves

2010-2015

1. Operating Reserves

- support the service's transition to another institution
- provide a safety net when there is a revenue short-fall
- 2010-2015 balance estimate = $200,000*

2. Development Reserves

- support special projects
- Scientific Director + I FTE programmer + GenPh Mod
  - 2014 = $184,500
- 2010-2015 balance estimate = $445,000

* Long Term Investment Pool

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Works Well

- arXiv continues to be heavily used and praised
- Membership-based fund raising works well for covering base operating costs
- Governance model
  - fosters transparency & accountability
- Myers as Scientific Director
- Initial work re: funding sources:
  - Development of special projects list & initial cost projections
  - Initial contact with NSF
  - Advice from Cornell development office
  - Give button pilot (finally…)

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Needs Improvement

- Communication
  - IT development process and priorities
  - setting/managing expectations
- Authority – further clarification of Paul G.'s embedded role
- Supporting maintenance & simultaneous development
- IT infrastructure
  - scaling to new demands and modern tools
- Fractured nature of org model
- Plans beyond 2017 – CUL's role?

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2016: Proposed Strategies for Consideration

- Assign a full-time lead programmer
  - Warner will continue his work at the same level (.3 FTE) as a strategist/manager.
- Ruddy's role will transition into full-time Operations Manager
- Add a user experience (UX) staff
  - translation of requirements & functionality into mock-ups and implementation plans
  - creation of consistent feedback loops (communication)
- Engage two external technologists/managers to advise us on IT staffing, workflows, communication, and strategies
  - Needs to be light and nimble process
  - expand arXiv staff (in consultation with MAB/SAB)
- Engage in grant writing (federal agencies and foundations)
  - Involvement of a new librarian to help with this process
- arXiv user study for improving interface/search functionality
  - Identify and prioritize user segments

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Beyond 2013-2017 Business Plan: Planning for Next Business Cycle

- What are the strengths of the current arXiv governance and membership model? What is working well?
- What are the areas for improvement? How should the Cornell team strengthen the operation from technical, policy, user support, fund raising, and communication perspectives?
- Do you find your role as an MAB member fulfilling? Has Cornell set the right expectations? What are the other ways MAB could be involved in advising the Cornell team?
- Any other input/suggestions you may want to relay.

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Service	Budget	FTE	Funding	Organization
ADS	$2.15 million	10 FTE (includes 3.5 FTE IT staff)	NASA	Smithsonian Astrophysical Observatory
Inspire	not available	10 FTE (excludes IT team & project leads)	SLAC, FNAL, CERN, DESY, IHEP-Beijing	SLAC, Fermilab, CERN, DESY, IHEP-Beijing
Euclid	$1 million	6.5 FTE (includes 1 FTE programmer)	Revenues	CUL & Duke University Press
arXiv	$1 million	6.7 FTE (includes 1 FTE programmer)	CUL, Simons Foundation, Members	CUL

* Budgets include direct and indirect costs

Give Pilot as Fund Raising Strategy

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Give Pilot as Fund Raising Strategy

from 2014 MAB meeting minutes

- Give button interface will need to be thoughtfully designed so that it is not lost on arXiv's current text-heavy interface.
- Give button should only reside as an option on the search interface, and not on the submission or moderation pages
- How do we define success, and balance our benchmark to any impact that a give button may have on arXiv's reputation and goodwill?
- Revenue from the give-button is not a reliable source of income, and therefore if the give button is present on arXiv it will be tied special project.
- The give button is also a promotional opportunity to remind users of the contributions already provided by their institutions. Using it in this way will also demonstrate that arXiv is not in financial trouble.
- We will acknowledge the contributors. Recommendations were for an alphabetical list or for something like "circles" of contributors who donated specific amounts, but no logos, links, or special branding.

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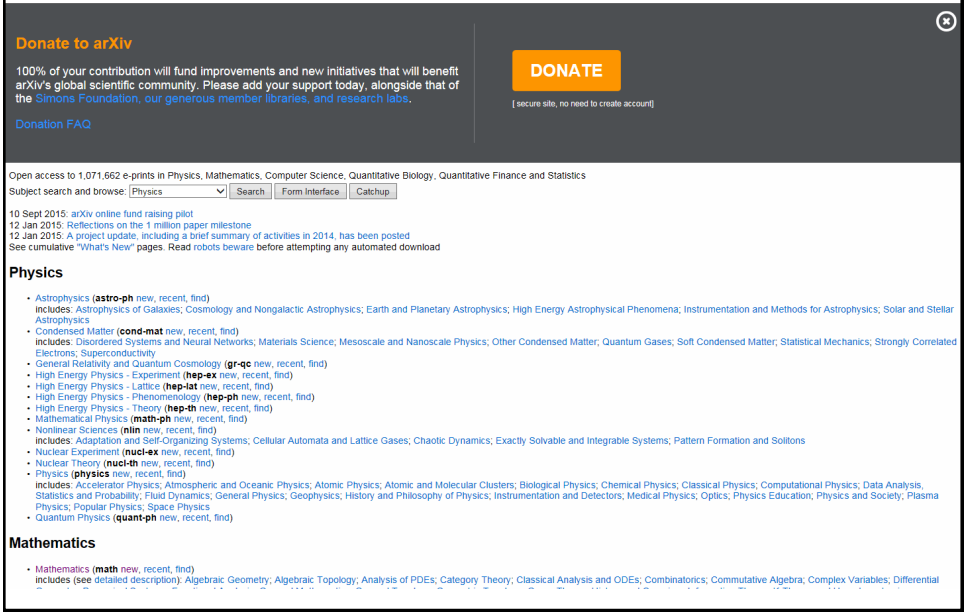
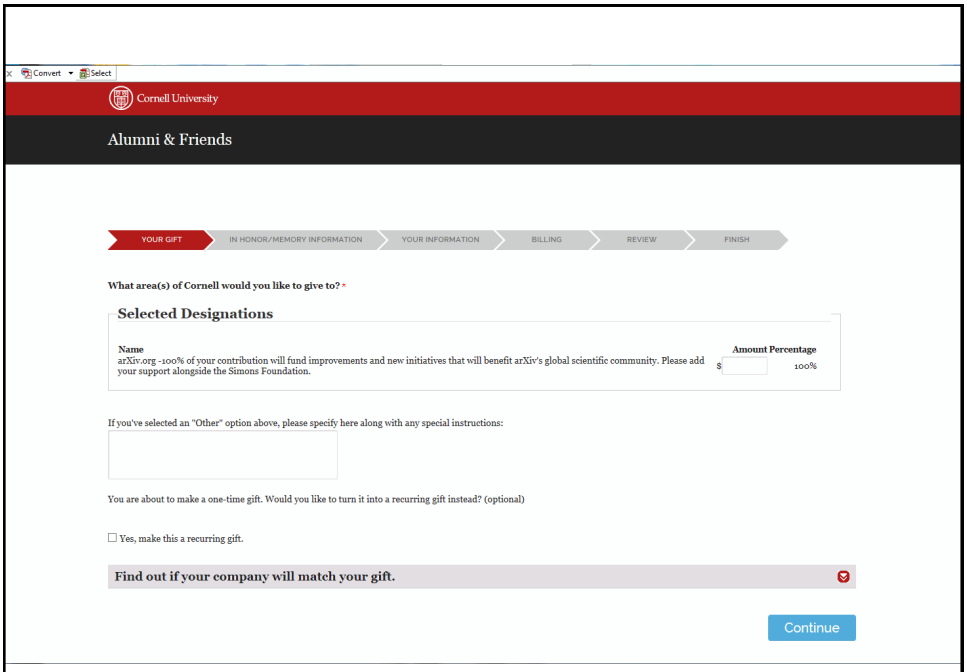
Online Fund Raising Pilot: Initial Findings





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359 individuals = total $15,700K

$1,000	1
$500	3
$300	1
$250	1
$200	4
$150	1
$100	47
$55	1
$50	61
$40	3
$30	11
$25	30
$20	71
$18	1
$15	9
$11	1
$10	84
$7	1
$5	22

Day		#	
Th	10	47	½ day
Fr	11	91	
St	12	33	
Sun	13	34	
Mon	14	55	
Tue	15	48	
Wed	16	51	

Thursday ½ day to be added

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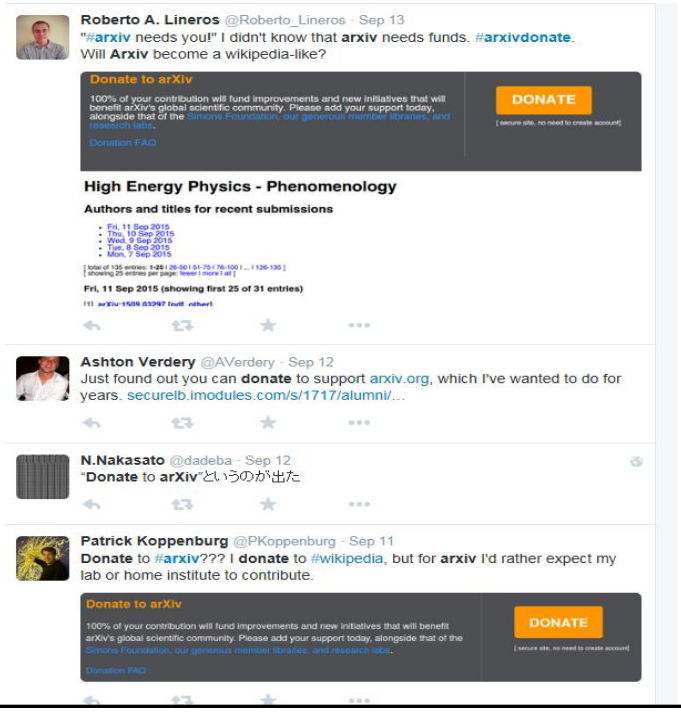

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From: Christian Kurtsiefer <phyck@nus.edu.sg>
Sent: Thursday, September 17, 2015 10:37 PM
To: support@arxiv.org
Subject: arXiv usage by National University of Singapore

Hello,

I am Christian Kurtsiefer, faculty member in the physics department at the National University of Singapore, and came across your donation drive to have a sustainable operation of the arxiv.

Let me firs thank you for providing this absolutely outstanding service to the community, I think it makes a huge difference on the way we all can work and exchange information.

A short look on the member/donor list revealed that my institution seems not really contributing to the costs. While I am not in a position to make a commitment by myself, I am happy to lobby for this, because it is an essential tool. For this, would you be able to give us an indication in which usage ranking we fall according to your statistics, and what an adequate contribution from our side would be?

I see two options, one would be from the University as a whole, and the other one for our institute, the Centre for Quantum Technologies, where we for sure use the arxiv extensively.

We probably send all the requests to you via a proxy server with a 137.132.x.x IP address if this helps to identify the usage.

Thanks, and Best Regards,

Christian
--
Christian Kurtsiefer Tel: +65-6516-1250
Centre for Quantum Technologies / Physics Dept. Fax: +65-6516-6897
National University of Singapore

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-------- Forwarded Message --------
Subject: Fwd: About journals
Date: Wed, 16 Sep 2015 12:20:44 -0400
From: Aleksandar Donev <donev@courant.nyu.edu>
To: Carol Hutchins <carol.hutchins@nyu.edu>

Sounds like a good idea...I just donated money to ArXiv.

-------- Forwarded Message --------
Subject: About journals
Date: Mon, 14 Sep 2015 14:35:08 -0400
From: Floren <fbalboa@courant.nyu.edu>
To: Aleksandar Donev <donev@courant.nyu.edu>

Ah! Something interesting is happening on the scientific journal universe. Some people are creating journals with a standard review process, ISSN and all those things but using arXiv to host the final version of the papers. Their idea is to create open access journals that everybody can read but without fees for the authors (or at least extremely low ~ $10). As far as I know there are no journal like that in our field but it is nice to see thing are moving in the science community to make it more open.

https://gowers.wordpress.com/2015/09/10/discrete-analysis-an-arxiv-overlay-journal/

Floren

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