BRAVE
NEW
SOFT
WARE

Brave New Software Inc.
333 East 102nd Street, #409
New York, NY 10029

Grant term: 1/1/2017 to 12/31/2017

Mr. Michael Brennan

Please find enclosed a project support grant application of $75,000 to support the work of
libraries.io — a project of Brave New Software — in order to map the open source digital
infrastructure landscape and develop accessible tools for monitoring the utilization of open
source projects over time.

Yours,

James Vasile

James Vasile (Secretary)

Libraries.io Narrative Proposal

Background

Much of our digital world is built on open software and standards. But if we don't act, that crucial foundation could crumble sooner than we think.

Nadia Eghbal's 'Roads and Bridges' study for the Ford Foundation[1] offers us a concerned view of the open source[2] ecosystem that supports our digital infrastructure — the projects seated at the centre of systems like the Internet. Open Source development wasn't always a mainstream concept, but it forged its credibility on the idea that an engaged community could build on the work of others, and make it stronger, safer and more useful as a result. The vision worked, in a sense. Making these building blocks available helped entrepreneurs, creators and organisations to save time and money while they developed much of the software we recognise in our modern world. But who is making sure these foundations are still strong? Often, the maintenance of crucial open source software project is left to volunteers, and many no longer enjoy the egalitarian relationship between users and contributors they once celebrated. As our society embraces the vast potential of technology, the number of projects that rely on open source software is booming. If we want to make sure we're building something that lasts, we need to ensure that we nurture and protect the community that creates and maintains these essential components.

While 'Roads and Bridges' study stops short of providing a roadmap for solving the cultural, financial and institutional issues at the centre of this community, it does suggest that measuring the relationships between and the impact of individual projects is one of the necessary pre-conditions to catalysing measurable change. It cites our Libraries.io project specifically as a leader in this area.

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[1]
http://www.fordfoundation.org/library/reports-and-studies/roads-and-bridges-the-unseen-labor-behind-our-digital-infrastructure
[2] Freely available software available under a permissive licence for commercial or personal use.

This issue was comprehensively documented and exemplified in Nadia's study, but individuals and organisations have been tackling this problem for some time. Following the publication of the Heartbleed vulnerability[3] in April 2014, the Linux Foundation established the Core Infrastructure Initiative, a project focussed entirely on identifying and supporting undervalued, under-funded and under-scrutinised open source projects, specifically those we now describe as digital infrastructure. Before this, key projects in the academic and scientific communities had been supported by institutions like the University of Auckland, whose development of R — now the preeminent statistical analysis tool in academia and industry[4] — has had a global impact on empirical research and analysis.

Academic institutions have historically proven they are one of the few organisational structures that provide the right environment for nurturing and sustaining impactful, open projects as a public good. Their endowment-based funding models help to insulate teams from the explicit or implicit incentives that can pervert the course of a project within a commercial organisation. Philanthropic foundations and trusts could also play a key role in the maintenance of our shared digital infrastructure.

These organisations, institutions and — at the grass-roots level — individual contributors continue to share a common problem: prioritisation. There is an expansive landscape out there, largely due to the proliferation of software solving increasingly-niche problems. In order to determine which projects are most valuable to our digital infrastructure, we need to efficiently and effectively index what's out there, and identify those with the most impact.

The Linux Foundation's Census Project[5] provides a hit-list of projects in the Debian operating system's software library by using metric data gathered by Black Ducks' Open Hub (formerly Ohloh.net), combined with human-provided wiki-like data. This score is weighted significantly

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[3] http://heartbleed.com/
[4] https://www.r-project.org/ contributors.html
[5] https://www.coreinfrastructure.org/programs/census-project

by 'popularity'. It draws from Debian's Popularity Contest[6] project, which gathers data on a weekly basis about software installed on servers upon which the administrator has chosen to install a package specifically for this purpose. Popularity Contest has collected 195,056 such reports at the time of writing and this approach has been copied elsewhere at similar scale.

Mission

Libraries.io raises the quality of Open Source Software by accelerating the factors that affect its evolution.

It does so by understanding the value an individual piece of software contributes to the entire ecosystem. This requires an understanding of the complex relationships between software and the frameworks, plugins and tools they depend upon.

Libraries.io follows the principles of Google's PageRank. PageRank values a single page or site based upon a number of factors, and then federates some of this value to any site it links to. In effect, it treats these links as an endorsement of the content contained within the target site. Libraries.io takes this approach and extends it to the world of software. After valuing a specific project based on factors similar to the Linux Foundation's Census project (we unimaginatively call it SourceRank), we then federate some of this value to any other software upon which this project relies.

Libraries.io achieves this by traversing the network created by configuration management files, which tell a developer which software needs to be downloaded and installed in order for a project to compile and/or run successfully. Most commonly this configuration management is handled by a package manager. This is a hosted service that provides indexes of versioned software releases for installation programmatically, as well as offering a framework for publishing one's own work so it can be used by others. Package managers typically exist for an operating system (Debian Linux or OS X) or language (Ruby or Python) but they also exist for

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[6] http://popcon.debian.org/

frameworks and applications (Wordpress or Chrome). Currently Libraries.io covers 33 package managers recording data from close to 1.9m projects hosted on GitHub, written in over 160 languages. It is, to our knowledge, the largest dataset of its kind in the public domain. Libraries.io's strategy is to use this network graph to address the three problems established in 'background'. Currently we address two of these issues directly with two tools:

Libraries.io

Libraries.io's central, public facing website[7] is an open and free discovery service. It serves search results for Open Source projects based upon their SourceRank score, which is weighted predominantly by the frequency of their use in others' software as a dependency. This is a strong indicator of reliability, as a project that has a large community of developers invested in its success is more likely to be maintained by the creator and/or a team of contributors (although this does not imply a sustainable project in the longer term). By indexing search results this way we accelerate the natural selection process, establishing a convention or consensus which can improve productivity for the individual and provide some of the preconditions for a sustainable project. As of November 2016 Libraries.io Libraries.io became a project of Brave New Software.

Sustainability of Digital Infrastructure

The sustainability of our shared digital infrastructure is an open issue, one in which Libraries.io has the potential to become a central tool that supports the emerging communities studying this problem. The value Libraries.io can provide *today* is to share with these groups the data collected about this complex, interdependent landscape in order to better prioritise existing efforts, identify projects that need support, and work to develop models of support that can sustain a truly open, agnostic economy for maintaining projects as a public good.

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[7] https://libraries.io

Activities

The basis for our proposal focuses on two subject areas: deepening the understanding we have of projects that we currently support or are committed to supporting, and establishing a 'baseline' from which the impact of our own work and the work of others in our community can be inferred.

This proposal also supports the commitments made to The Alfred P. Sloan Foundation, with whom the Ford Foundation are collaborating to support our work. In summary these commitments include:

- Increasing the number of repositories monitored by Libraries.io by including projects hosted on collaborative coding services GitLab and BitBucket,
- Creating parity in the data gathered across the 33 package managers currently supported by Libraries.io, many of which require compilation in order to resolve the dependency tree[8],
- improving access to Libraries.io data, extending the programming interfaces for search, data retrieval and traversal including the publication of network graph and SourceRank data under a Creative Commons licence.

The mainstay of our work for the Ford Foundation will be focused on establishing a baseline of data across the projects that are being monitored. This seeding process will ensure that the right information will be in place to demonstrate the impact of our work, when required. Needless to say, disambiguating between the impact Libraries.io has had and the impact of the wider work in the area will be a challenge. To address this we will add distinct calls to action where a user is contributing to a project showing patterns of poor practice — a recent addition that draws in a large dependency tree, for example — enabling a simple resolution — for instance a recommendation for an alternative package. In this way we can overlay the impact we can provably demonstrate over the patterns we see emerging in the underlying baseline

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[8] The complete tree-like structure that described the transitive dependencies of a project, that is if A depends on B and B depends upon C then A is transitively dependent on C.

data. Further to this we will be including notifications for individual users under organisational accounts, providing a unified events and activity feed for users within a given organisation.

In addition we will extend the depth of data gathered by Libraries.io. Currently we directly harvest 19 measures which contribute to the SourceRank score for the purpose of indexing and prioritising search results. This score is weighted significantly by the number of projects that depend on a given project and its own dependency tree — the projects upon which it depends itself. We will expand these measures to include third party data, for example CodeClimate[9] scores. We will also add metrics that support the populist approach taken by the Linux Foundation's Census Project, using download counts as an indicator and potentially as an index in search results.

This application would also support the ongoing work within the open community of the Core Infrastructure Initiative. This could include working with individuals and organisations to foreground endemic issues — for instance, malpractice in software distribution services — and advising on projects that require the support of the wider group. This work will require closer collaboration with the Linux Foundation, Google's Open Research practice and the Open Technology Fund.

Finally this proposal will establish an appropriate governance strucutre for the Libraries.io project. It is likely this will lead to the establishment of a formal governance board and/or a board of advisors.

Outcomes

This proposal will support existing commitments to the Sloan Foundation to:
- Double the breadth of data gathered by Libraries.io to 4 million projects hosted on collborative coding platforms GitHub, GitLab and BitBucket,
- Improve access to Libraries.io data, extending the programming interfaces for search, data retrieval and traversal, leading to increase in usage by direct users and reusers — for example, outsourced search facilities for software distribution service Bower,

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[9] https://codeclimate.com/

- Publish Libraries.io's network graph and SourceRank data under a Creative Commons licence.

Further to this, the Ford Foundation's support will specifically enable us to increase the depth of data gathered on projects we monitor both directly and through third party, open services.

The primary outcome of this support is to establish a baseline of metrics for all projects monitored by Libraries.io, in order to demonstrate the impact of work under this grant to the wider community working to secure the future of our shared digital infrastructure. At this time it is difficult to detail precisely what format this outcome will take. The baseline data will surface through the interface, for individual users and organisations to utilise directly on the libraries.io website and through the API. It is unlikely that time-series data will be available in individual open licence releases due to the size and scale of the core data set.

We will formalise working relationships with at least two of the following: The Linux Foundation, Google Open Research, The Open Technology Fund, UC Berkley or IILAB. This may involve further applications for funding for specific programmes of work for 2017 and beyond. Finally we will recommend a board of governance of up to five members and/or board of advisors of at least five members to our project host Brave New Software.

Note on Financial Sustainability

While we will be seeking further support from philanthropic foundations, our long-term strategy is to create a sustainable source of funding for the project through revenues collected through DependencyCI.

Our intention is to formalise the current holding company (UK registered DependencyCI Ltd) as a subsidiary of Libraries.io. DependencyCI.com offers developers a range of workflow tools built upon Libraries.io data. It launched in July 2016 and has received an encouraging response from industry. We have promising leads concerning company-wide usage at Sky, Goldman Sachs and

Accenture. We have forecasted a conservative $7,000/year in revenues, generated through the sale of enterprise services which will be used to fund group-wide infrastructure costs and/or staff salaries as required. Our intention is to re-invest any funds generated above this level to grow the customer base and develop the product until such time as DependencyCI is able to comfortably donate a significant sum to Libraries.io.

Part 1:

The following is a Microsoft Word-based form. To move from field to field in this form, use the mouse or the TAB key. Once complete, save the document and e-mail this form to the Foundation program officer. (Note that this form should be submitted in addition to a narrative proposal.) **For assistance with any item in the form, use the F1 key.** *Note that you will* have *an opportunity to elaborate on the information contained in the form in the longer proposal narrative.*

Organization/ Company name	Libraries.io, a project of Brave New Software, Inc.
Short description of Organization/Company	Brave New Software is dedicated to keeping the Internet open and decentralized. We build user-focused open source tools that solve practical problems in how the internet works for people. Practically, this translates to building infrastructure and removing barriers to foster communication and collaboration in communities across the globe. Libraries.io indexes the landscape of free and open source software, using methods similar to those applied by Google. Doing so provides a unique opportunity to highlight essential digital infrastructure projects requiring the attention of organisations tackling the issue of under-resourced, critical software that enables free and reliable access to a resilient internet.
Web site address	http://www.bravenewsoftware.org/ https://libraries.io
Year founded	Brave New Software: 2010 Libraries.io: 2014
Mission	Brave New Software is dedicated to keeping the Internet open and decentralized. Libraries.io raises the quality of Open Source Software by accelerating the factors that affect its evolution.
Location (city & state)	Brave New Software is based in Los Angeles and New York. Libraries.io is based in Bath, UK.
Please describe in two brief sentences the broad purpose of the grant. Follow this example: "(Your org name here) requests a grant in the amount of (amount here) in order to Y. Funds from this grant would support x, x, and x. (Hint: the Xs in this sentence are concrete, measurable activities or deliverables, and the Y in the sentence is a broader social or strategic benefit).	Brave New Software requests a grant of $75,000 to support the work of Libraries.io, a project which will help us to better understand the reach and impact of Open Source software in our digital infrastructure. By identifying the Open Source projects that are most critical to the ecosystem, and developing accessible tools that monitor the use of such projects over time, we can play a vital role in ensuring that our digital ecosystem is properly maintained and monitored.
In one or two sentences, **please explain the climate or challenge that this grant is addressing.** If possible, ground this challenge with statistics or citations or examples (But remember, only one or two paragraphs maximum—you'll give more detail in the proposal narrative below).	Open source software — freely available available under a permissive licence for commercial or personal use — underpins much of our shared digital infrastructure. Nadia Eghbal's 'Roads and Bridges' study for the Ford Foundation (July 2016) paints a concerning picture of this ecosystem.. It has become clear that Open Source projects

	need to be nurtured and supported in order to maintain these building blocks. Where Libraries.io can play a major role is in measuring the relationships between projects, and understanding which have the most impact on the software ecosystem.
In one or two paragraphs, please explain how this **grant will directly address the climate or challenge** articulated in the previous paragraphs (in other words: what will be achieved if this grant is funded by Ford and executed by your organization).	This grant will help establish Libraries.io as a key tool to help the community to measure and understand the breadth and importance of projects within the ecosystem. It will improve the depth and access to data gathered by the platform and establish a basis from which the impact of work in this area can be demonstrably proven.
In one or two paragraphs, please explain how **your organization is uniquely positioned to successfully achieve the goals of the grant**. (Here you can cite history of your organization's previous work or explain the unique perspective or technical expertise or social context, etc…)	Libraries.io already holds the worlds largest, public database of software interdependency, an understanding of how projects utilise one another. This understanding is one of the key factors in prioritising projects as 'digital infrastructure'. The platform has been developed over the course of two years and has recently gained the financial support of the Sloan Foundation which provides, for the first time, support for the core team to dedicate 100% of their time on this initiative. In addition both core team members are members of the wider Core Infrastructure working group; the group established by the Linux Foundation, Google and OpenSSL to ensure the world's digital infrastructure is reliable, resilient and sustainable. This provides them with access to most individuals and organisations working in this area.
Summary of accomplishments under current or previous grant (Please refer to benchmarks in previous proposal; if this is a first grant, indicate with N/A)	N/A

Proposed grant activities (summary – five or six bulleted items)	- Establish and formalise a board of advisors and/or appropriate governance structure,
	 - Further development of Libraries.io platform to:
	     - broaden the data on monitored projects, enabling the community to see how dependencies fluctuate over time. This enables both a baseline to be created and later impact assessments to be made across all monitored projects.
	     - add a number of individual and organisational level features within libraries.io as a service, announcing and assisting a user to resolve common poor practices such as licence incompatibilities between components,
	     - expand SourceRank measures to include third party services and 'popularity' metrics.
	 - Continue work within the Core Infrastructure Initiative and community members such as The Linux Foundation, Google, The Open Tech Fund and IILAB)

Benchmarks **(Indicators of successful implementation of activities)** (summary – usually one or two corresponding to	- to elect a board of governance up to five members or advisory board of at least five members - to increase the number of projects monitored by Libraries.io to approximately four million while increasing

each major activity listed above; these should represent products, outputs, or other measurable targets, **not** a re-statement of the activities)	the number of registered users to 20,000, monitoring 8,000 projects while serving 40 million requests per month (on current figures of 2m projects,13,000 users monitoring 3,600 projects while serving 23 million requests per month) - to demonstrate an increase in contributors to the libraries.io codebases validated through an increase in code contributions, bug reports and feature requests, - to formalise at least two working relationships with significant institutions currently working on identifying or supporting our digital infrastructure. - to present our work at a minimum of four events with community, academic, research and industry audiences.
Grant starting date (Use m/d/yy format – we prefer grants to begin on the first of the month)	1/1/2017
Grant term (Specify the number of months or years)	12 months
Target Population for these grant activities (e.g., who is benefiting? Male/Female/Children/Asian Americans/ African Americans/Latinos/…) (more than one population is fine; just add % for each.)	All internet users
Target Geographic Area for these grant activities (e.g., Manhattan/NYC/United States/Alaska/… Worldwide, Asia, Brazil, East Africa, etc) (more than one Target Area is fine; just add % for each.)	Global

Organizational Background

Organizational total annual budget and funding sources (current year)	Libraries.io : ~$125,000 from the Alfred P. Sloan Foundation. Brave New Software: The projects program has budgeted $1,400,000 for 2016. This budget includes $650,000 from the Moore Foundation, $140,000 from the Shuttleworth Foundation, and $523,000 in earned income from the University of California Press.
Current/previous grants from the Ford Foundation (if any)	None

Contact Information

Please list names and contact information below. **Please also indicate who in the organization will be responsible for updating board member and banking information on the Foundation's on-line Grantee Access system. Grantee Access is an online tool that offers Foundation grantees a secure means for providing and updating their officers and board lists, key contact information and electronic payment instructions for receiving grant funds.** Grantee Access also provides grantees with a snapshot of their grant history with the Ford Foundation. Information on Grantee Access will be sent to grantees when the final proposal has been accepted and approved.

	Name	Email	Address and Phone

Project Director	Benjamin Nickolls	<redacted>	<redacted>
Chief Executive Officer	James Vesile	<redacted>	<redacted>
Lead finance staffer or CFO	Rose Regina	<redacted>	<redacted>
Person responsible for submitting grant reports	James Vasile	<redacted>	<redacted>
Person responsible for signing the grant agreement*	James Vasile	<redacted>	<redacted>

* For US-based grantees, the Foundation has implemented an electronic signature system for execution of grant notification letters using DocuSign. As grant letters must be electronically signed by an appropriate officer at the organization, please list the name/title/email/address/phone of the officer who will be the DocuSign Contact to <u>e-receive and e-sign</u> the grant letter. At universities, the Director of Sponsored Research, Director of Foundation Relations, or any university officer may be the designated DocuSign Contact.

Diversity Table

When Foundation staff consider grant applications, they include in that consideration how applicants have provided opportunities for historically disadvantaged or under-represented groups within their organizations. To help us make that assessment, we ask you to submit a Diversity Table. Please use the format as presented below. Please define in the narrative the meaning of under-represented for your social context, identifying particular underrepresented group(s) referred to. If you need guidance on completing the diversity table, please contact your Program Officer.

	Under-represented(*)		Total	
	Female	Male	Female	Male
Board	0	1	1	4
Professional staff	0	0	0	2
Support staff	0	0	1	1
Please ensure the total for Board membership above matches the number of people on the on-line Board list.				

Grant Budget Support Information

Total amount requested:	$75,000

Disbursement Schedule (check one):

☑ Standard grant disbursements annually in proportion to the requested grant term, or in lump sum for grants of one year or less.

☐ Specially requested grant disbursement schedule_____

Sources for any other funds supporting grant activities (For each source, indicate whether these funds are committed or projected)	$125,000 Alfred P. Sloan Foundation Nov 2017 - Jan 2018 (Committed)

Part 2:
Organizational Capacity Self-Assessment
Please complete below (If you are a previous grantee of the Media Rights & Access portfolio you may use the same self-assessment as in the previous grant request but make sure the information is still accurate.)

Governance	
Describe your board or governing body and the role it plays in the organization	Libraries.io is a project of Brave New Software. We are in the early stages of identifying and formalising our own board of advisors, in the meantime we have the support of Brave New Software's governance and advisory capacity. Brave New Software has a board consisting of 5 people. The board holds one large annual meeting and approximately 10 other meetings over the course of the year. Board members engage in frequent discussion with BNS day-to-day staff.
How are board positions filled?	Libraries.io board positions will be filled by invitation and open application. In the first instance it is likely that the core project team will use their current networks to approach appropriate candidates. Open applicants will be interviewed and accepted based upon published evaluation criteria concerning their particular knowledge, skills and networks. We will seek members active in industrial and academic research within the 'digital infrastructure' community. We will also seek those with experience in start-up process and growth, fundraising, scaling large-scale software applications, US/UK tax and accounting, US/US legal issues and open source licensing issues. Brave New Software chooses board members based on mission alignment, commitment to oversight, and the ability to deliver resources to the organization. With the exception of Alicia Mullen, Brave New Software's board members have been involved with Brave New Software since its inception in 2010. Brave New Software fills board positions by majority vote when vacancies arise, though votes have historically all been unanimous.
How are decisions made and how is information shared?	Recommendations are made to the board of Brave new Software by the core team. The board consults with project teams and stakeholders as needed to render final decisions. Decisions are generally made by consensus. While voting is available to make final decisions, Brave New Software has generally avoids a vote until consensus has been reached. Ratified decisions that have long-term impact on the strategic direction of the libraries.io project will be published openly by creator and founder Andrew Nesbitt's on Medium and

	federated through social media. Brave New Software may also chose to publish a supporting message on their own outlets and/or re-publish content published by Andrew. All of Brave New Software's projects are open source in nature. The substantive work done by the organization is mostly public by default.
Have there been any major changes in the composition of the board or governing body in the past two years?	Libraries.io does not yet have a formalised governance model. With the exception of Alicia Mullen, Brave New Software's board members have been involved with Brave New Software since its inception in 2010.

Diversity

What forms of diversity (e.g. gender, racial, cultural, religious, immigrant/refugee, linguistic, generational, etc.) do you think are important for strengthening the quality of the work proposed and why?	Libraries.io has already committed to foreground issues of diversity and seek demographic representation in the event of any hire and subsequent employment. As a remote-first organisation we will become an equal opportunity employer focussed solely on hiring the best talent to support our goals. Brave New Software's work includes work on technology in communities across the world, most especially in the Middle East and in China. Our ability to partner with allies in those regions has required us to strive for ethnic and geographic diversity. Our best projects are multi-lingual and engage users in their countries with native voices. There is broad movement in the tech sector toward working on issues of gender diversity. We believe strong teams are gender diverse and include women at the highest level of decision-making. Our largest project include women at their inception and in sponsored project leadership.
Does your organization's staff and governance reflect this diversity?	Libraries.io does not yet have a formalised governance model, however we are committed to foregrounding issues of diversity and aspire to include at least two female members on our advisory board and at least two people from under-represented communities. Brave New Software is engages diversity across several axes. Aside from Libraries.io, sponsored projects usually include women in prime leadership positions. Likewise, much of our work is international in nature and our staff and partner organizations have included representation from many countries and ethnic backgrounds. We do not conduct an official audit of diversity, but BNS was 50% women when it was a two-person team, and the initial board included 2 people of

	color (one left to be replaced by Alicia Mullens), the other, James Vasile, runs the projects program. From a governance perspective, each sponsored project designs its own system for making decisions. We encourage but do not require projects to adopt a code-of-conduct that specifically addresses inclusive language. We support projects in taking steps to ensure open communities that treat all participants with respect.
What progress has your organization made to increase its diversity in the last two to three years and what diversity plans do you have during the prospective period of activities?	Libraries.io has, until November 2017, been the product of a interest by Andrew Nesbitt and a select group of friends and volunteers to explore this area. As the organisation formalises, we are now building with a keen focus on diversity. BNS works with a number of technology diversity efforts as it conducts hiring activities. Board member James Vasile is an advisor to Ready Set, a diversity recruiting firm. Likewise, he has been a mentor for Outreachy, a mentorship organization for early-career women technologists. Through those relationships, BNS has expanded its recruiting pool, and it counts many women and people of color among its contractors and collaborators.
Organizational Capacity	
How long has your organization been doing work in the programmatic area?	Libraries.io has been in development since March 2014. Core team member Benjamin Nickolls has been working with the Core Infrastructure Initiative since March 2014. Brave New Software has been developing open source software for the public good since 2010. It's leadership has been advising and managing open source projects in various roles for over a decade.
Financial Management	
Describe your organization's current financial state.	Brave New Software does not maintain an organization-wide budget document. Rather, it performs project-based budgeting for each sponsored project. The projects program has budgeted $1,400,000 for 2016. This budget includes $650,000 from the Moore Foundation, $140,000 from the Shuttleworth Foundation, and $523000 in earned income from the University of California Press. Libraries.io has project $125,000 committed funding from the Alfred P. Sloan Foundation for 2017. This covers

	approximately six months salaries for two core team members in addition to twelve months infrastructure, office and subsidiary costs.
What financial reports does your organization generate; who prepares them and who reviews them?	Brave New Software will be responsible for financial diligence, accounting and reporting throughout the term of this grant. Brave New Software has an accountant and bookkeeper who manage monthly receipts and enforce reporting policy. Brave New Software staff generate a register of accounts that is reconciled with external accounting staff, who enforces policy around reporting and documentation. We produce monthlies and also annual reports as needed. Mary Tiller, Brave New Software's accountant, reviews all documentation and accounts. These accounts are also regularly audited by an independent auditing firm.
When was your most recent financial audit?	Brave New Software last completed an audit on 19th June 2015. Libraries.io has not had an audit, as it operates under the auspices of Brave New Software.
Is there a financial management team, accounting group or qualified individual who will monitor the grant funds and what is their relationship to the project director?	Finances are approved by and accounted by BNS staff James Vasile and Rose Regina Lawrence. Accounts are prepared by contracted, professional accountant Mary Tiller and audited by Melissa Gilroy CPA

Resumes

Andrew Nesbitt

Community

24 Pull Requests, http://24pullrequests.com/
Annual 'give back to open source' campaign inspiring 2,691 users to make 15,055 contributions to 6,245 projects in 2015.

London Node User Group, http://lnug.org/
Founding member of this free, monthly meetup featuring talks and networking for those using Node.js

Industry

Founder and Director, Dependency CI, 2016-Current
Continuous integration service using Libraries.io data, providing sustainable income to Libraries.io

Founder and Head of Technology, Libraries.io, 2014-Current
Open source discovery platform. Self-supported until November 2016.

Software Engineer, Independent Contractor, 2015 - 2016

Software Engineer, GitHub, 2013 - 2014
Working on Discovery tools, New User Experience and web performance

Software Engineer, Independent Contractor 2012 - 2013

Software Engineer, Forward Internet Group, 2010 - 2012
Working on Ecommerce, Internal tools, Monitoring and Web Development

Web Developer, Rawnet , 2009 - 2010

Web Development for a variety of clients

Web Developer, Econsultancy, 2008

Redeveloping and upgrading a large, classic ASP website in Ruby on Rails

Web Developer, Greenvoice, 2007

Developing a new social networking platform in Ruby

Web Designer, Ziymoo, 2006

Designing web interfaces for a video auction startup

Academia

BEng Robotics & Automated Systems, University of Plymouth, 2003 - 2006

Benjamin Nickolls

Community

Contributor, Core Infrastructure Initiative, 2015-Current
Focussing on the intersection of security and user-driven design, dissemination and fundraising.

Industry

Head of Product, Libraries.io, 2016-Current
Joined Andrew Nesbitt under the support of Brave New Software and the Alfred P. Sloan Foundation.

Founder and Director, Con Gas Games, 2015-Current
Physical game design, development and distribution.

Head of Services, mySociety, 2013-2016
Building sustainable income for parent charity from digital products based upon our open source platforms.

Founder and Director, The Dot Consulting, 2011-2013
Digital product agency focussing on mobile applications using web technologies.

Solutions Consultant, Ribbit Corp, 2009-2011
Working between engineering and business development to design propositions for programmable voice applications.

Information Technology and Research Graduate Programme, BT, 2007-2009
Various roles in network security, applied research and corporate risk and continuity.

Academia

MSc Computer Security, University of Birmingham, 2006-2007

BSc Computer Science, University of Liverpool, 2002-2005