Science Lab
Program Review
March 24, 2015

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Agenda

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Why science?

Apply Mozilla's values to make science more like the web: open, collaborative and shareable.

Current state: Scientific research is siloed, difficult to discover and hard to build upon.

How Mozilla Science Lab helps:

- Embedding open source ethos, tech and methodology in science
- Skills training around open data and programming, teaching documentation, efficiency, data-sharing
- Peer-to-peer learning model around open research practice

2015 Goals

Grow the Science Lab into a learning hub that deepens open practice in science through community building, training and code.

- ***Create and test*** infrastructure for collaborative learning in science.
- ***Develop*** training and resources to help researchers work in the open.
- ***Empower*** the next generation of open science leaders.

KPI: More active and engaged participants, higher conversion.
(working on baseline number / numerical target / metrics for this)

2015 Priorities

- ***Refocus*** and ***rebuild*** training and community efforts post-Software Carpentry.
- ***Build trust*** (of Mozilla) within the open science community.
- ***Recruiting and hiring*** - internally, as well as fellows, lead instructors, and mentors.
- ***Better link and articulate*** how our program ties to broader Mozilla goals and values.

2015 Key Initiatives

- ***Online platform:*** Website development; *Collaborate* project ramp-up
- ***Skills Training:*** SWC trainings; build Data and Mentorship Training program; onboard 50 instructors
- ***Fellowship program:*** Launch first cohort of Fellows
- ***Prototyping + Code Sprints***: Contributorship badges prototype; local and global sprint
- ***Community-Building:*** Community calls; MozFest; study groups; external events

Q1 Goals

- Launch new website and online collaboration platform.
- Grow training program to teach researchers open computing skills.
- Increase reach and retention of learners.
- Build participation and learning around prototyping and code sprints.
- Prepare for launch of Fellowship search.

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Q1 Goals

Launch new website and online collaboration platform.

Q1 Target	2015 YTD	Notes
Launch new website March 1	New site launched in February 2015	Showcases community involvement through Collaborate section, the blog and community pages. Added accounts, integrated with Github.
Open call for projects on “Collaborate” platform	Call opened February 2015	Piloted in Fall 2014. Now has 29 projects, 68+ participants.

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Q1 Goals

Grow training program to teach researchers open computing skills.

Q1 Target	2015 YTD	Notes
Co-ordinate 30 SWC training events	22 workshops	Lower demand for trainings in Q1, may be due to the transition. Reached 750+ learners in Q1.
Train 50 new SWC instructors.	64	Helped with training events at UC Davis and at the University of Melbourne for Australian and New Zealand community.

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Q1 Goals

Increase reach and retention of learners.

Q1 Target	*2015 YTD*	*Notes*
Develop “Participation Ladder” and strategy	In review by team	Participation Ladder outlines steps for involvement after a workshop. Will also shape university outreach strategy for 2015.

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Q1 Goals

Build participation and learning around prototyping and code sprints.

Q1 Target	2015 YTD	Notes
Pilot local code sprint.	Ran first local code sprint in Toronto, March 2015.	Smaller sprint, focused on three projects from Collaborate.
Planning for June global sprint.	Planning in progress	Second global sprint (first last July). Projects include hacking on tools and educational resources. 1 per year (+ MozFest).
Contributorship badges prototype	Plan developed; development to start in Q2.	Working with Open Access publishers (BioMed Central, PLOS), ORCID, Wellcome Trust and Center for Open Science. MSL will lead development, appling Open Badges to code and data contributions in scientific research papers.

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Q1 Goals

Prepare for launch of Fellowship search.

Q1 Target	2015 YTD	Notes
Prepare for launch of Open Science Fellowship search	Announced program in January; call to open in April	Have worked with external community members to gather input on structure of the program and promotion. More discussions needed internally, but on target to go live in April.

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Key Initiatives

Initiative	*Status*	*Commentary*
Online platform		*New website launched. Includes revamped "Collaborate" project platform, now open for community projects (launched as a pilot in Autumn 2014).*
Skills training		*Software Carpentry workshops and continued coordination support in progress. Hiring curriculum designer and 2 training leads. Shipped first iteration of "train-the-trainers" curriculum, now in testing.*
Fellowships		*Pre-launch planning. Call for Fellows opens in April.*

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Key Initiatives

Initiative	*Status*	*Commentary*
Prototyping + Code sprints		*Ran successful global sprints in July and Oct 2014. Ran first local coding sprint in Toronto in March, to pilot smaller code sprint events. Worked on technical engagement strategy. Badging prototype strategy in progress.*
Community Building		*Collaborated with University of Melbourne to support Australia and New Zealand. Community calls (monthly), with new Australasia call starting in Q2.*

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Landscape

Research is becoming more computationally and data intensive. But researchers still lack skills for more efficient online research. Interest from funders and universities to weave in open skills training, but curriculum is full.
Data science training gaining in popularity. But they're focused more on computer scientists, less on scientific researchers.
Researchers are not incentivized to work open. Current reward structures for researchers are still individualistic, based around scientific papers -- not code, data or collaboration.
Various groups working in this space. From scientific software, libraries, publishers, funders. Heightened interest, still highly fractured.

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How we're different

Software Carpentry, data training programs and code sprints help researchers become more successful open practitioners.
Open, participatory approach to data training and project-based work.
Community-building efforts highlight use cases for open in science and focus not only on researchers (including administrators, publishers and funders).
Mozilla's convening power. We're able to get diverse stakeholder groups to work together on prototypes and learning materials in the open.

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User / Community Sentiment

Software Carpentry workshops are great jumpstarts, but learners are lost once the event is done.
Need for community to work better together -- echoed at recent closed meeting of Open Science organizations, funders and developers.
Convening power of Mozilla Science Lab is welcomed by this community.
Tools, programs and resources are still difficult to find. Science Lab is helping, but could do more.

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Partnerships

Sloan/Moore Data Science Environments: modeling MSL projects in university settings with Univ. of Washington, UC Berkeley, and NYU. 5-year investments from Sloan/Moore Foundation (currently year 1).
Software Carpentry: our former science education program, moved out of Mozilla in Oct 2015. Offers short workshops on open computing to researchers worldwide.
University of Melbourne/"ResBaz": Australia / New Zealand skills training and community-building through annual "Research Bazaar" event. Plans to extend globally in 2016.
BioMed Central, Public Library of Science, Center for Open Science, ORCID: using badges to recognize researchers' data and code contributions.

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Funding Pipeline

Sloan Foundation: initial funder of MSL and ongoing supporter. Renewal grant will support core operations through March 2016.
Helmsley Charitable Trust: Two-year grant starting January 1, 2015 to support capacity-building in science. Funds two years of fellowships, a training lead, data program lead, curriculum designer and part of core operations.

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Q2 Goals

- Activate learners and volunteer instructors. Move from retention to engagement. (Target = 2K engaged mentors)
- Launch and onboard Open Science Training Fellow (3).
- Begin design phase of open data training and mentor program.

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Next Quarter: Key Initiatives

Initiative / Deliverable	*Brief Description*	*Dependencies*	*Date*
Online Platform	*Increase engagement through website, collaboration platform and new blog*	- *Development and design support for QA, interface design and deployment.*	*June 1*
Skills Training	*Start design of data and mentorship program. Re-think SWC support.*	- *Engagement support to drive promotion of workshops, increase demand coming through MSL channels. Also, link to Mozilla Learning.*	*June 15*
Fellowships	*Launch, onboard*	- *Operational support (Alex, Angela) around Fellows logistics; input from News and Policy teams. Tie in with Fellows strategy (An-Me)*	*July 1*

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Next Quarter: Key Initiatives

Initiative / Deliverable	*Brief Description*	*Dependencies*	*Date*
Prototyping + Code Sprints	*Move prototyping project into development w/ partners; run global sprint*	- *Engineering support (especially around badges and design input)* - *Link with other MoFo/MoCo communities (Hives, Webmaker) to drive engagement, add project ideas*	*Ship first prototype by May 15; sprint to run June 4-5*
Community-Building	Driving participation and conversion for learners	- *Feedback on "Participation Ladder" proposal.* - *Link with Mozilla Learning, MDN, ReMos*	*Ongoing*

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Needs & Asks

Challenge: Assessing conversion, contribution, and learning progress **Request:** Need ways to better capture reach, retention, and skills assessment.
Challenge: Getting Science Lab story and value clearly articulated internally across Mozilla. **Request:** Involve Engagement and Senior Management team to increase communication.
Challenge: cross-pollinating and plugging in other Mozilla communities **Request:** Help with activating groups like Hives, Mozilla Web Clubs, MDN and ReMos.

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Key questions for discussion

1) Are these goals and activities aligned with Mozilla values?

2) How can your team help us achieve what you've just heard?

3) How do we make this resonate with the rest of Mozilla? What opportunities are we neglecting?

4) Are we operating efficiently? How can we go faster with the same or higher quality?

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