THE NEW ENGLAND SOFTWARE CARPENTRY LIBRARY CONSORTIUM: DEVELOPING A CARPENTRY INSTRUCTOR COMMUNITY OF PRACTICE

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Introduction

Data-driven research has become ubiquitous across scientific disciplines and researchers need to build and expand their data skills. However, most institutions do not have the capacity to sustain teaching researchers the fundamental data science skills that will help them be more productive while producing higher quality science.

The New England Software Carpentry Library Consortium (NESCLiC), an association of academic libraries, joined as a community of practice focused on building data science skills in research computing, and extracting, wrangling, storing, analyzing, and visualizing data. NESCLiC allows member institutions to share in a Gold-level Software Carpentry (SWC) membership.

Membership

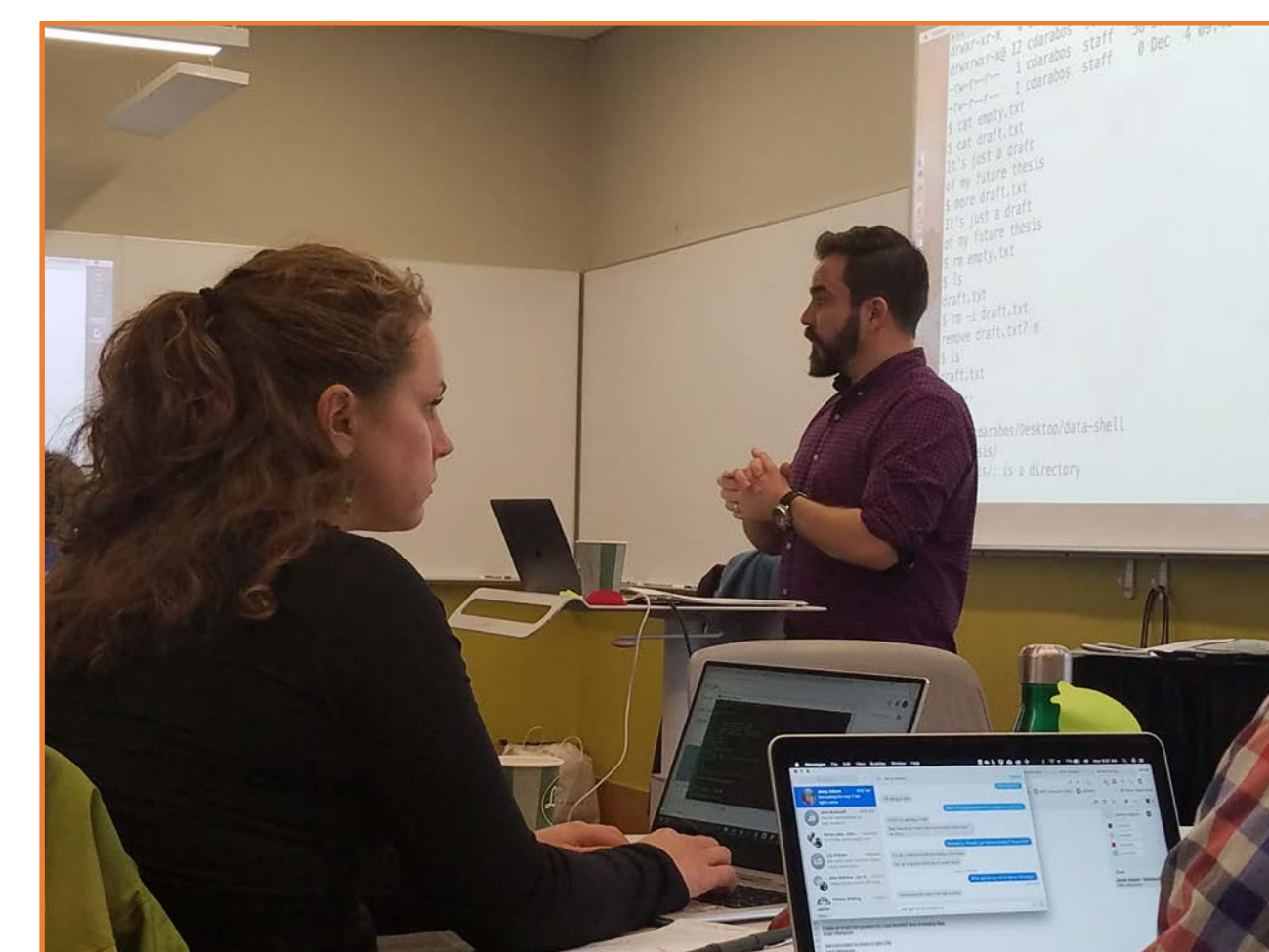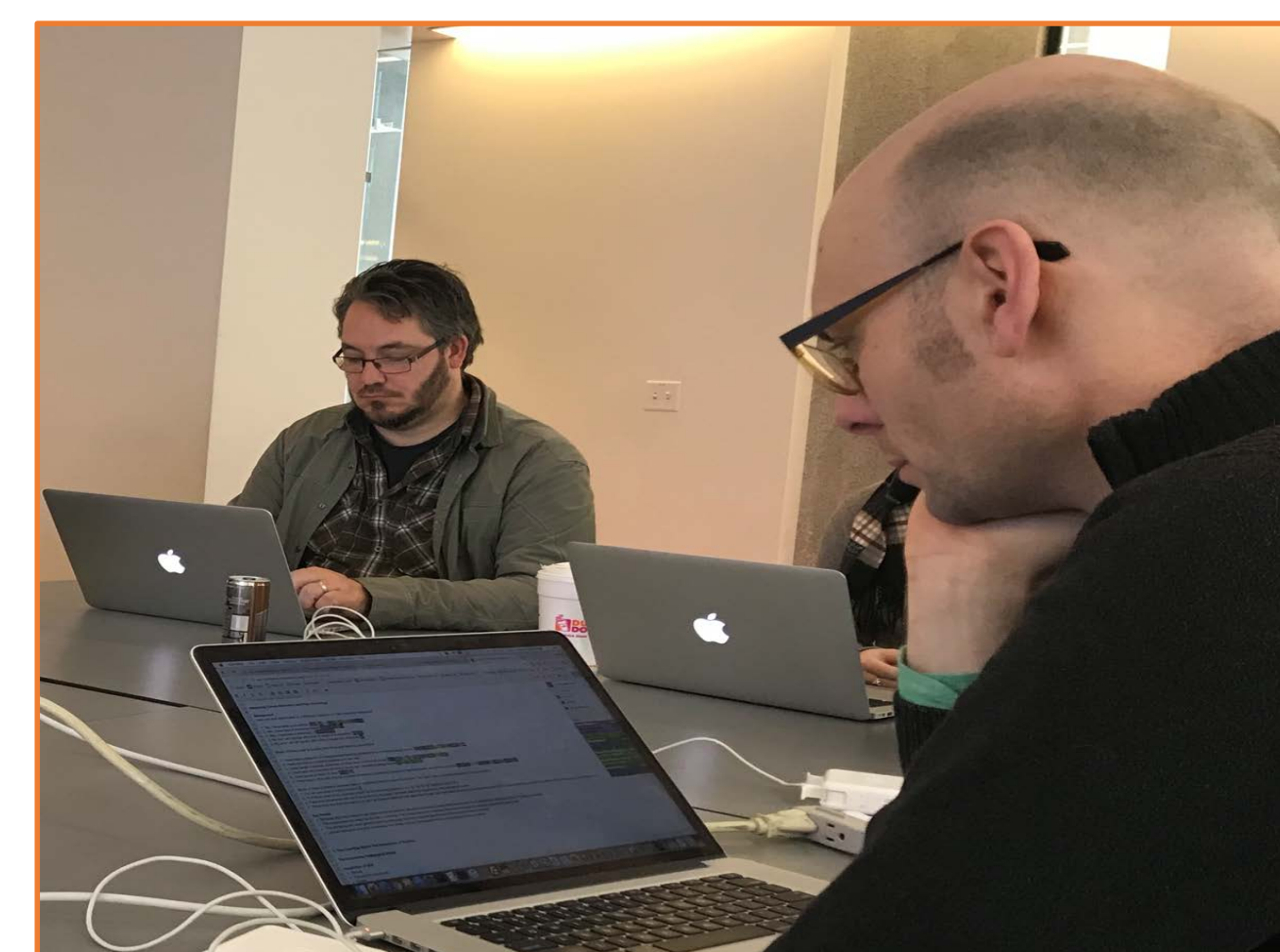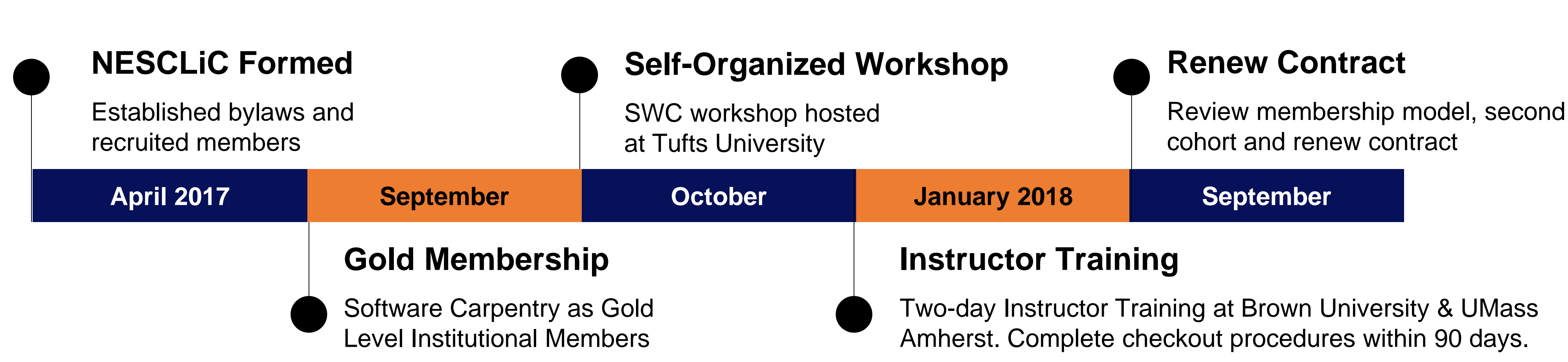|	Bronze	Silver	Gold	Platinum
# of free coordinated workshops	2	4	6	negotiable
Discount for additional coordinated workshops	20%	33%	50%	negotiable
Charge for self-organized workshops	0	0	0	0
# of instructors trained	0	6	15	negotiable
Seat on Advisory Board	No	Yes	Yes	Yes
Annual Membership Dues $	5000	7500	15000	Contact SWC

Results

NESCLiC Pilot Year:

- Established bylaws outlining roles and expectations of participation
- 15 members certified as Software Carpentry instructors
- Participation in an initial SWC workshop, held at Tufts University
- SWC Instructor training, co-hosted at Brown University and UMass Amherst
- Active collaboration (Google Drive, GitHub) and communication (Google Groups, Slack)

NESCLiC Member Opportunities:

- Develop instructional materials
- Build a network of data fluent researchers and instructors
- Provide a service to the consortium and the community by participating in one of several roles, including: Carpentries liaison; Membership/Recruiting; Assessment; Outreach; and Workshop coordination
- Refine skills by participating as instructors at other member institutions

THE CARPENTRIES

The Carpentry workshops are hands-on two-day events that cover the core skills needed to be productive in a small team. Instruction sessions are integrated with practical exercises, and all instruction is done via live coding (carpentries.org).

Software Carpentry workshops focus on automating tasks, how to track and share work using version control, and how to write software that is readable, reusable, and reliable.

Data Carpentry workshops are domain-specific, and follow a narrative structure, working with one dataset through the whole data lifecycle from project organization to visualization.

Library Carpentry workshops are designed to help library professionals. Lessons include SQL, web scraping, data cleaning and tidying. It is not formally associated with the Carpentries.

Conclusions

By joining together, institutions can leverage their resources to join SWC at premium levels and quickly scale up their data science and computing skills outreach and instruction. The consortium created a cohort of instructors in a small geographic area that can support each other and the mission of The Carpentries by co-organizing workshops.

At the end of the pilot year, NESCLiC will assess its membership model and either recruit for the second member cohort or continue as a group without a formal SWC membership.

Check out nesclic.github.io/home/

Interested in joining NESCLiC?

Email: nesclic@googlegroups.com
Financial commitment: Cost of shared Carpentry membership ($1000 per person) plus training expenses (travel or hosting)
Time commitment: (2) – two-day training workshops plus committee work

Timeline

NESCLiC Formed — Established bylaws and recruited members
April 2017

Gold Membership — Software Carpentry as Gold Level Institutional Members
September

Self-Organized Workshop — SWC workshop hosted at Tufts University
October

Instructor Training — Two-day Instructor Training at Brown University & UMass Amherst. Complete checkout procedures within 90 days.
January 2018

Renew Contract — Review membership model, second cohort and renew contract
September