

Diversity and Inclusion in the R Community

Heather Turner

@HeathrTurnr



Forwards taskforce

@R_Forwards

7 March 2020

heatherturner.net/talks/satRdayJoburg2020

Background

Action from the community initially focused on women

- heR panel at useR! 2014 raised awareness of gender disparity
 - Forwards taskforce set up in December 2015
 - R-Ladies Global set up in August 2016



Forwards (est 2015)

R Foundation taskforce to widen participation of underrepresented groups

- Social media
 - Twitter: @R_Forwards
 - Blog: <https://forwards.github.io/blog/>
- Community
- Conferences
- On-ramps
- Surveys
- Teaching

Other initiatives - Wider Community

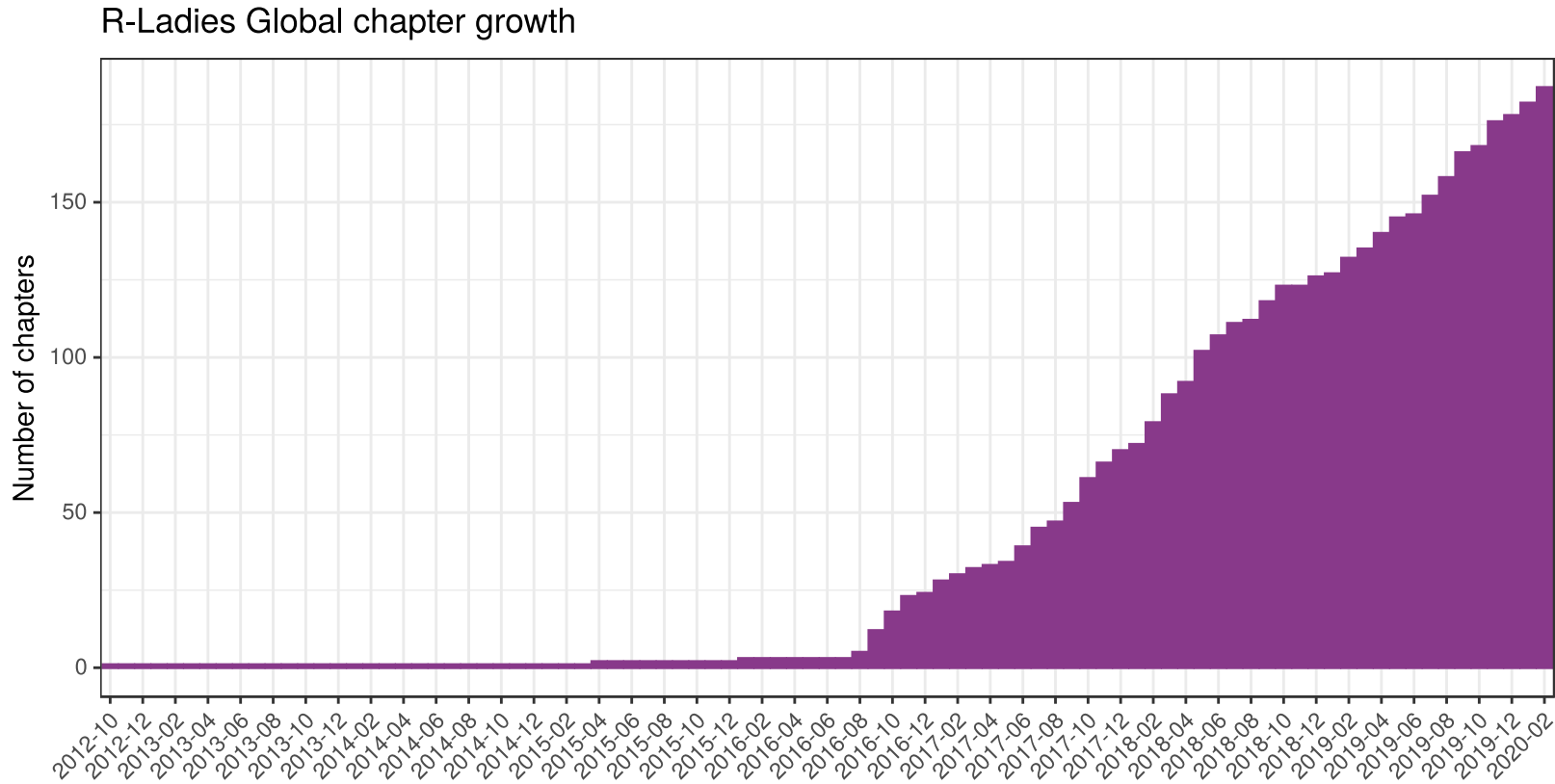
- Conferences/workshops
 - Women in Data Science (est 2015), Black in AI (est 2017)
- Meetups
 - Women in Machine Learning & Data Science (est 2013), Queer in AI (est 2018)
- The Carpentries (est 2018, Equity, Inclusion, and Accessibility Roadmap 2019)
- NUMFocus Diversity & Inclusion in Scientific Computing (DISC) (est 2017)

Other initiatives - R Community

- rOpenSci
 - unconf (est 2014)
 - Community Manager (since 2016)
- Tidyverse developer day (est 2019)
- R Consortium Diversity & Inclusion Working Group (est 2018)

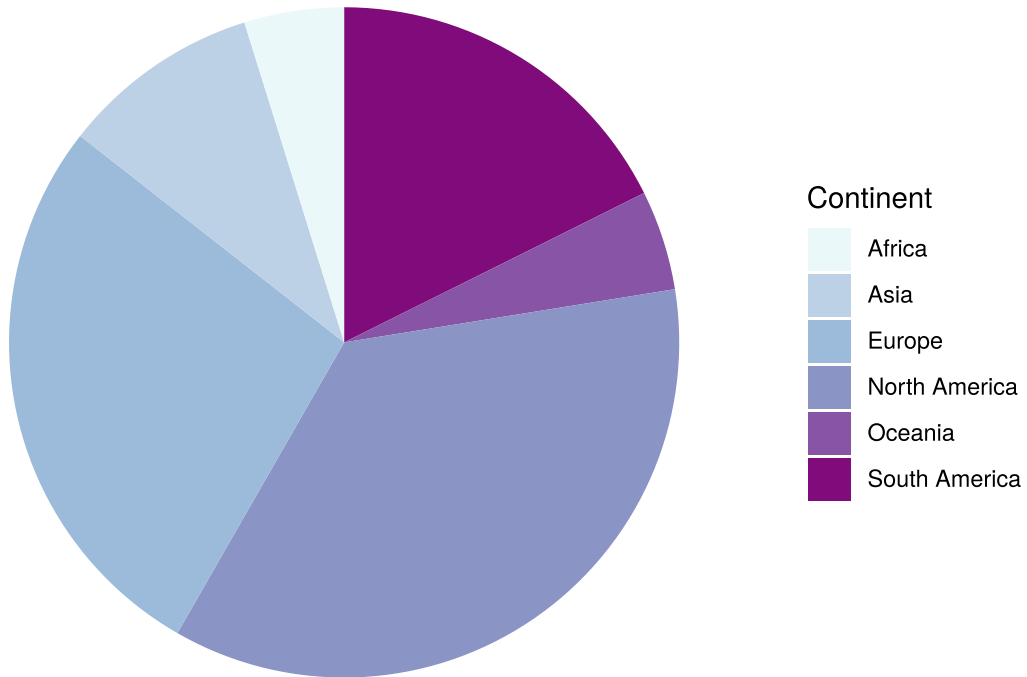
R-Ladies

Currently 188 chapters



R-Ladies

Chapters spread over 52 countries



Current Challenges

User Community

- outreach beyond white women

Developer community

- widening participation from underrepresented groups

User Community

Underserved Regions

useR! Regional Hubs

- Pilot in Munich this year
- Hoping to scale up next year to include hubs in e.g. Africa, Latin America, Asia
 - reduce environmental cost with maximum in-person interaction
 - reduce financial cost
 - reduce travel time
 - potential to allow languages other than English
 - potential to incorporate remote participation
 - avoid visa issues

AfricaR Community (@AfricaRUsers)

- Started in 2019
- Newly expanded leadership team
 - **Shelmith Kariuki - Kenya**
 - **Denis Irorere - Nigeria**
 - Mohammed Ali - Egypt
 - Ahmadou Dicko - Senegal
 - Anicet Ebou - Ivory Coast
 - Nelda Limilimi - Uganda
 - Vebashini Naidoo - South Africa



AfricaR Activities

- 2019: several new RUGs, two satRdays
- Plans for 2020:
 - Write governing documents (mission statement, CoC)
 - Rotating curator Twitter account
 - Tutorials in French
 - Website (events calendar, blog)
 - Package(s) to address African needs, e.g. NLP package that supports Arabic, Swahili, etc.

Get Involved

- Follow [@AfricaRUsers](#)
- Share your contacts
 - Potential speakers/hosts for meetups, workshops
- Reuse your talks/workshops
 - Present at RUGs when travelling
 - Offer to present remotely
- Join in with AfricaR plans for 2020
 - Help with organization of community finances?

Tweets by [@AfricaRUsers](#)

Africa R Users Retweeted



Luis de Sousa

[@luis_de_sousa](#)

Replying to [@datawookie](#) and 5 others

I'd also like to mention R-Ladies
Cape Town run great meetups too :)
[meetup.com/rladies-cape-t...](#)
[@RLadiesCapeTown](#)

Minority Ethnic/Racial Groups

The Importance of Community



MiR Community

Medium post by Danielle Smalls-Perkins and Dorris Scott: [MiR: A Community for Underrepresented Minority useRs](#)

- Conference support: abstract review
- Mi-useR Slack: network and share opportunities
- Social media and blog posts: highlight Mi-useRs
- Mi-useR directory: members, speakers and Rstudio trainers
- MiR dev days: making contributions to the R open source ecosystem

Get involved

- Let people in your workplace/RUG/etc know about MiR
- Join MiR as a minority useR or ally: bit.ly/2unAM8b
- Follow [@Dorris_Scott](#) and [@smallperks](#)
- Support the MiR initiatives

Disabled and Deaf useRs

R for Blind Users

Jonathan Godfrey has provided many resources

- [Let's Use R Now \(LURN\)](#) e-book for blind users
- [BlindRUG](#) mailing list
- BrailleR package
 - text descriptions of graphics
 - WriteR software to produce R markdown documents
- Tips for writing [accessible markdown documents](#)

Accessibility of R Conferences/Events

Liz Hare has been leading the development of **best practices for events**

Informed call for proposals for useR! 2021, e.g. asking if venue had

- step-free access
- disabled parking close to venue
- gender-neutral bathrooms
- policy allowing children on premises

Aim to integrate recommendations throughout organization for 2021.

What you can do

- Educate yourself/others on accessibility
- Expect disabled people at your events
 - including as speakers, chairs, committee members, etc
 - remove barriers to inclusion, don't wait for people to ask
- Give feedback on/help develop best practices
 - (R-specific) advice for creating accessible/inclusive presentations
 - advice for social media managers

General tips for creating inclusive communities

- Organizers: use best practices in your events
 - Noa Tamir is working on [guide for meetups](#)
- Expand your network
- Support the initiatives of underrepresented groups
- Share opportunities
- Do what you can to lessen/share the burden

Developer Community

Developer Meetings

Developer meetings co-located with useR!

Directions in Statistical Computing (2014-2019)

- Both invited speakers and invited participants
- Mostly R Foundation members, plus special guests
- Prior to useR!

R Implementation Optimization and Tooling

- Open call for speakers, open to useR! participants
- Parallel with useR!

Barriers to Inclusion

Invited workshop

- Special guests can feel out of place
- Community members that would be interested are left out
- Information is not shared

Satellite meetings

- Not same effort to reach out to underrepresented groups
- Very little promotion to general community
- Details hidden away on separate website

Hard for people from underserved regions to get involved

Work in Progress

DSC 2020

- Speakers are invited, but anyone can attend

RIOT 2019

- First time RIOT was advertised on useR! 2019 website

Room for improvement

- Better promotion of events, with a focus on diversity
- Alternative formats (e.g. breakout session) to enable new contributors
- Sharing information, e.g. recorded talks, blog post

Package Development

Package development workshops

Forwards package development [workshop materials](#)

- Full day and 2 hour versions
- Workshop run in Auckland, Budapest, Chicago, York, Johannesburg
- Upcoming Montevideo
- Working on [guide](#) for others to run workshop at RUGs, R-Ladies groups, universities, etc

Reluctance/Nervousness to Submit to CRAN

- Bad experience on CRAN/official mailing list
 - Decide to not to publish/host on GitHub
- Hoops to jump through
 - A lot of information: CRAN Repository Policy, Checklist for New Submissions
 - Feedback can be unpredictable and underspecified
 - Involved process: updating NEWS, DESCRIPTION, running checks and tests
- R-package-devel provides limited support
 - can still be an intimidating experience
 - focus on specific questions

Basic Onboarding?

- Potential for basic onboarding service for first-time (underrepresented) submitters
 - guidance through checklist
 - help with errors/issues that come up in checks/tests
 - help solve issues identified by CRAN
 - give guidance on resubmission as they "graduate"
- Work with CRAN support team to keep Checklist for New Submissions up-to-date
 - c.f. [collaborative list of things to check](#)

R Core

Python Core Dev: Adding Women to the Team

I want at least two female core Python Devs in the next year

— *PyCon 2015, Guido van Rossum*

From **Victor Stinner's PyCon 2019 talk**:

2016: 0 women core devs

2017: 2 women core devs

2018: 4 women core devs

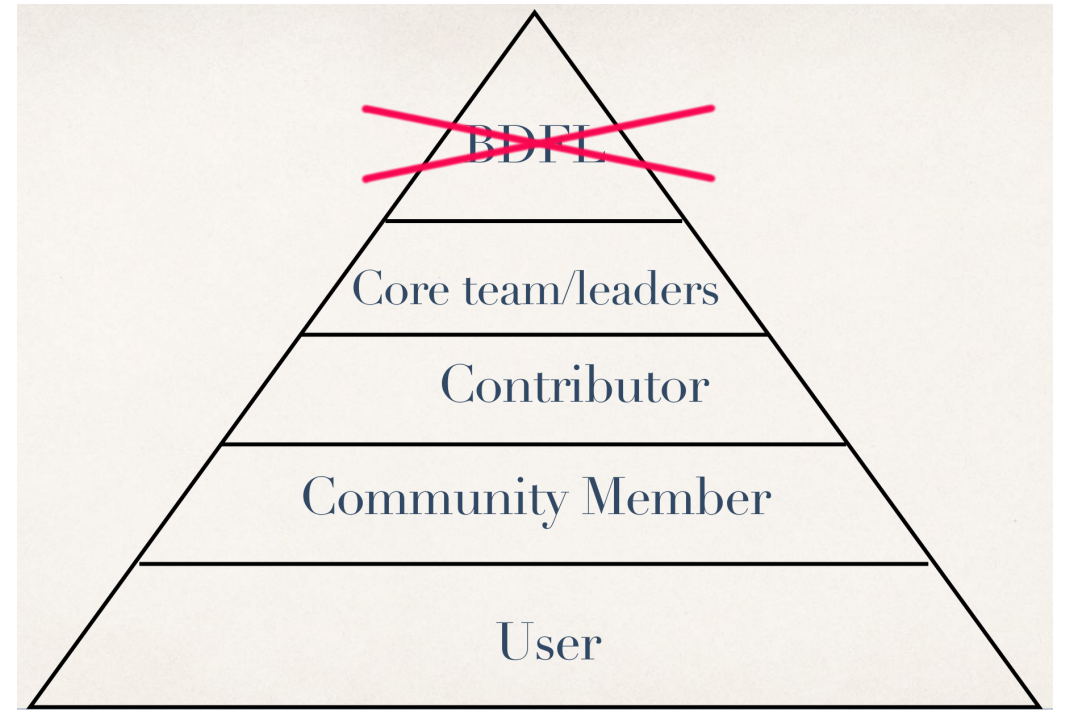
~ 30 active core devs

Process of Becoming a Python Core Developer

Mariatta Wijaya described process in her [PyCon 2018 talk](#)

- Read the Dev Guide devguide.python.org
- Join core-mentorship and python-dev
- Find issue in bugs.python.org
- Propose pull request

All these steps can be done by non-core members



@mariatta

Getting to be Invited to Be a Python Core Developer

Promotion to core dev depends on trust

Trust earned by core devs getting to know people via

- Pull requests (PRs)
- PR review
- Interacting on mailing lists, IRC, Zulip
- Becoming a Developer on issue tracker (able to triage issues)

Mentoring

Victor Stinner in his [PyCon 2019](#) proposes mentoring as a scalable solution to both *core dev burnout* and *lack of diversity*

Recent/current work by Python Core devs ([Ref1](#), [Ref2](#))

- Move to GitHub (2017)
- Document promotions process (dev guide)
- Mentoring guide
- Contributor tutorial
- Core dev office hours (public and private)
- Adding enforcement procedure to code of conduct

More Ideas from Other Communities

Rust: **mentored projects** (diversity scholarships)

- mentees invest 2-5 hours per week over 3 months
- expenses paid scholarship to Rust conference following year

Various: **outreachy projects** for underrepresented groups

- paid internship, 40 hours per week over 3 months
- require mentor(s) to invest 5 hours per week

Outreach from R Core

- Call for help [Reviewing Bug Reports](#) (R Developer Blog, October 2019)
 - At useR! 2020
 - outreach slot adjoining keynote talk
 - parallel session dedicated to R Core speakers
 - tutorial by Tomas Kalibera on contributing to base R
 - Considering "Requests For Proposals" on perceived deficiencies in R
 - community teams propose solutions

Summary

We can all support community-driven efforts for better inclusion of under-represented groups

- Forwards is playing its part here

A lot of ideas from outside and inside R community of how to get more contributors from under-represented groups

- Currently don't have enough active members on Forward on-ramps team
- Needs active participation of R Core and other contributors