The R-Ladies Revolution

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How a community born of a common programming language could help science become more diverse and inclusive

By Jenny Seifert

At the time an office should never be packed, happy hour, the NCEAS lounge was filled with a couple dozen people, mostly women, sitting in slightly haphazard rows, laptops open in their laps. With the intermittent tapping of typing in the background, everyone’s attention was rapt as they learned about the topic of the afternoon: computer file paths.

This group is among the 160+ gatherings of women and allies across the world who call themselves R-Ladies. It is a global movement to promote gender diversity in the coding-language-turned-community of R, and NCEAS hosts the Santa Barbara chapter.

“It’s not only helping female and gender-minority scientists find their community, but it’s also helping them do their science better,” said chapter co-founder Jamie Afflerbach, a marine data scientist at NCEAS.

Amid calls for more diversity and inclusion in science, alongside growing concerns about mental health issues and the loneliness of research, R-Ladies is a beacon that could guide scientific culture further in a positive direction. It is about building communities and a shared culture online and offline – arguably serving as an example of how the Internet got it right.

“In science in general, we find ourselves working alone or with people who are distant,” said Afflerbach. “R-Ladies provides the community locally and globally for people to learn and actually move forward with their science instead of getting stuck. It’s funny that language is the common thing.”

These priorities are perhaps why R-Ladies has grown so quickly, supposes Horst, praising the leadership from R-Ladies global, which she says has done a lot to lower barriers to starting and running a chapter, such as providing a common Code of Conduct for chapter meetings.

Even though scientists are relative newcomers to the general R community, they make up the majority of the Santa Barbara chapter, which is perhaps not surprising given its founders are scientists. But true to the welcoming culture of R-Ladies, Afflerbach, Horst, and Lowndes are striving to include people from
other sectors – for example, a woman from a local foundation attended the meeting about file paths because she’s interested in using R for philanthropic evaluation – and the chapter is turning Santa Barbara into a bit of an R-lady hotbed.

At last count, the chapter boasted over 280 members, and that’s for a city of roughly 92,000 people. For comparison, the R-Ladies chapter of our neighboring metropolis, Los Angeles, has a little over 390 members.

“If we all speak the same language, we can get further,” said Lowndes, who is also the founder of Openscapes, an open data science mentorship program operated by NCEAS. “R-Ladies has a mindset that diversity and inclusion are better for everyone. We all learn more then.”

Lowndes contrasts this vibe to when she first attempted to learn R ten years ago. Back then, the R learning community was a listserv that, let’s just say, suffered from some grumpiness.

“R-Ladies makes it ok to have a positive, supportive culture to learn, and that’s something we don’t by default have in science. It has dislodged the status quo for me. It doesn’t have to be intimidating to ask questions. It doesn’t have to be scary to even show up,” said Lowndes.

As testament, Lowndes was the presenter of the file-path lesson, and much of her narrative was about who she talked to and learned from to be able to share these tips with everyone else.

And just ask any R-Lady to talk about the value of Twitter and Slack as platforms for learning from and connecting to the global community. In fact, it was through a serendipitous encounter on Slack that Afflerbach managed to recruit Jenny Bryan, a leading software engineer at RStudio who is one of THE R-ladies, to speak at a Santa Barbara chapter meeting last year.

To Afflerbach, Bryan’s willingness to pay it forward is not just an example of the build-each-other-up culture of R-Ladies but also a sign of what’s to come for science.

“Amplification is part of the future. Scientists [will] amplify scientists in the same ways R-Ladies amplify R-Ladies,” said Afflerbach.

(Pictured in second photo, left to right: Allison Horst, Julie Lowndes, and Jamie Afflerbach. Photo courtesy Julie Lowndes)