

Diversity, Equity, & Inclusion in Open Source

Key Themes & Preliminary Research Findings

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About the Research

METHODOLOGY & SEGMENTATION

Sample

- Survey fielded: July 2021
- Population investigated: Anyone who uses, contributes to, or thinks about open source software and is over 17 years old.
- Scope: Worldwide, with translated versions in Russian, Chinese (simplified), Japanese, Korean, Hindi, Arabic, German, French, Spanish and Portuguese.
- Usable Sample: 2,350. Overall, 3192 participants answered 2 of the 3 initial questions, and an age-related screener. Cases with high levels of non-response were ultimately excluded from the sample.

MoE is +/- 3.1% with 90% confidence and +/- 2.6% with 95% confidence (N=2,350)

Demographics & Segmentations

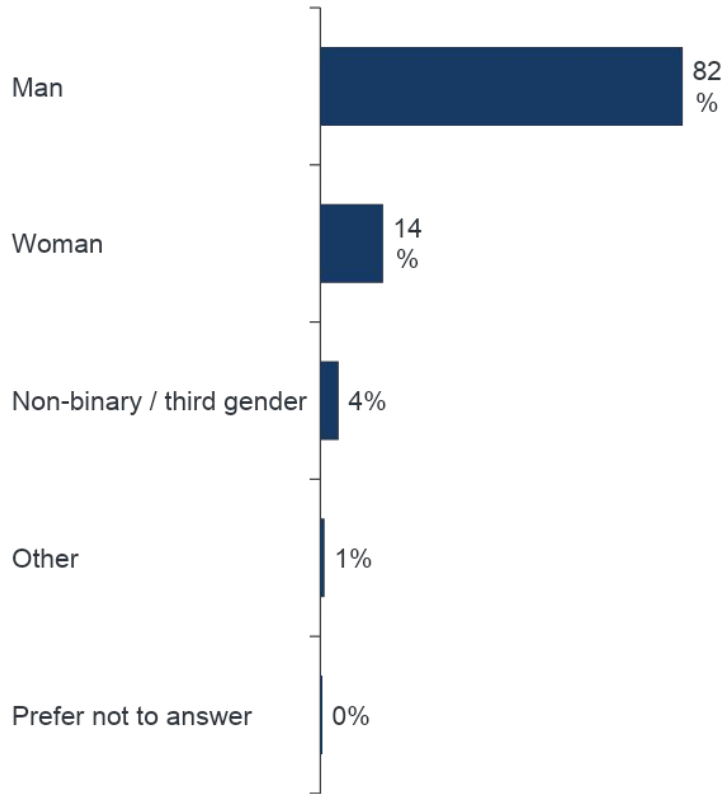
- Diversity within open source communities refers to composition by any number of the following possibilities: gender, race, ethnicity, sexual orientation, age, social class, physical ability or attributes, religious beliefs, value systems, national origin, political affiliation, and so on.
 - Survey asked: Gender, Geography/Location, Sexual Orientation, Race (NA only), Disability, Education, and more

Qualitative Interviews

- Conducted between August and September, 2021
- 16 completed interviews, 18 people
- Ecosystem representation: maintainers, contributors, OSPO leads, DEI leaders, across geographies and demographics

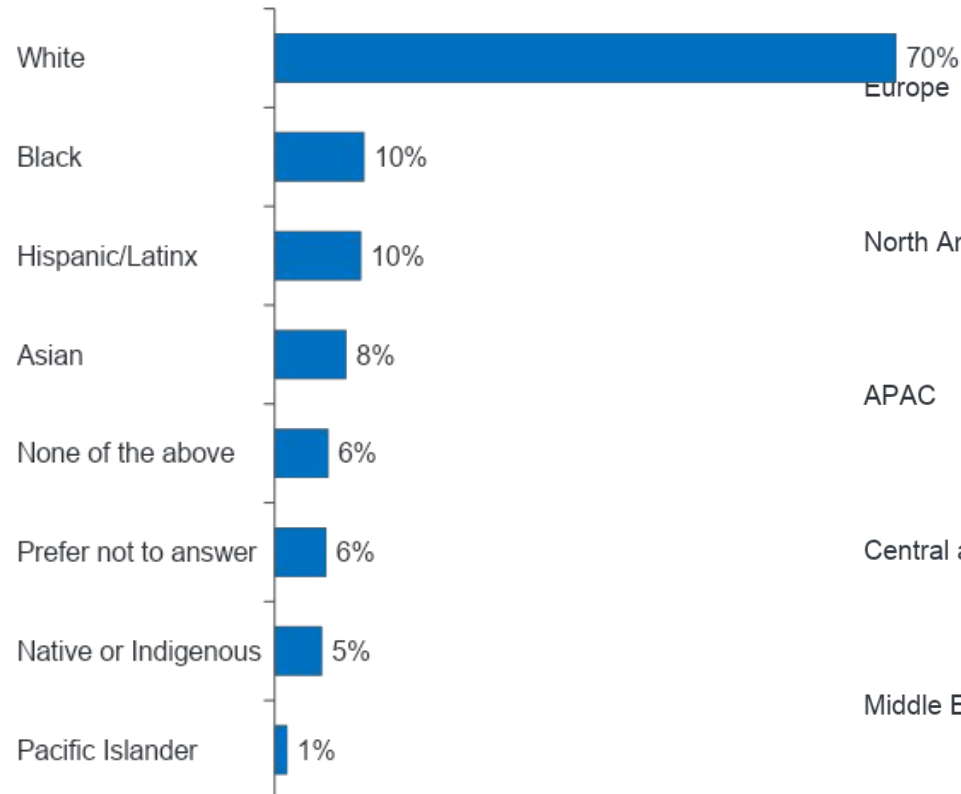
Sample: Representation in Open Source

What is your gender?



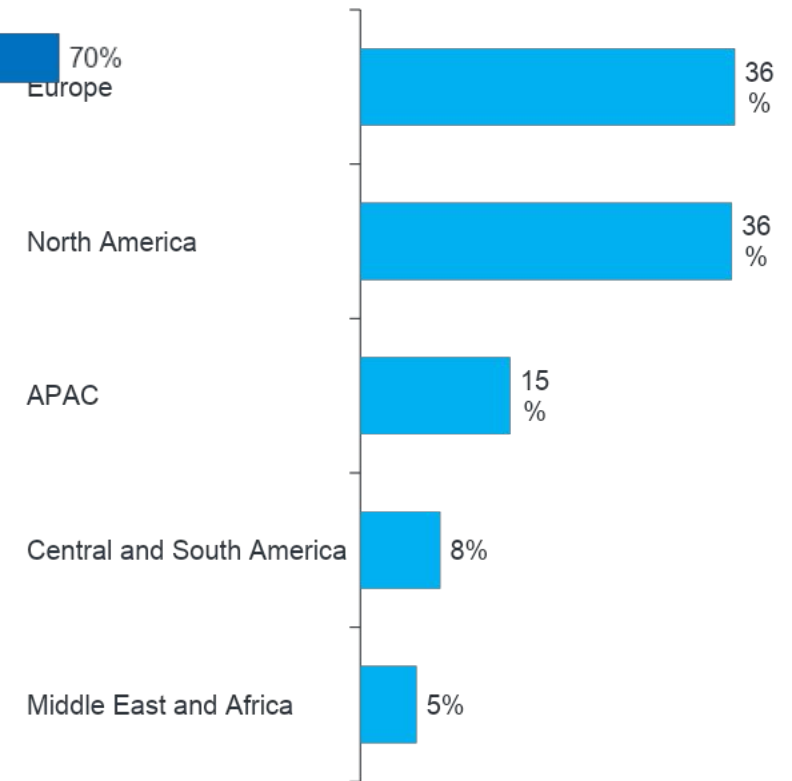
Sample Size = 2,344, Valid Cases = 2,344, Total Mentions = 2,378

With which racial background(s) do you identify? If multiracial, check all that apply.



Sample Size = 844, Valid Cases = 844, Total Mentions = 981

What best describes your location?



Sample Size = 2,348

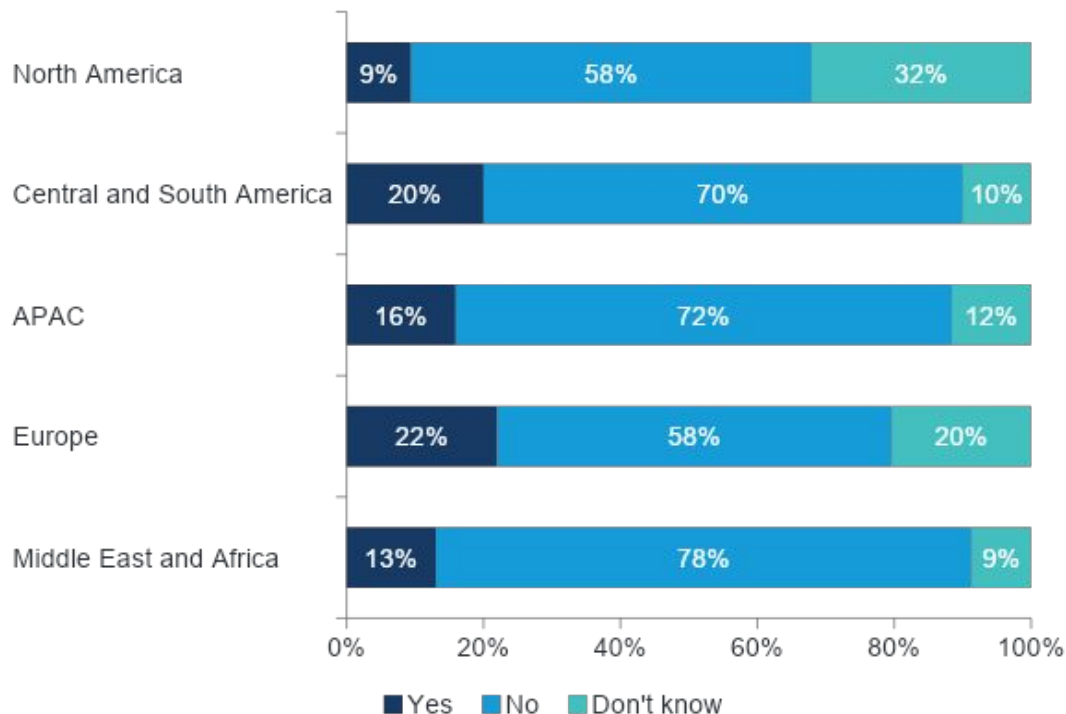
Key Themes & Preliminary Findings

Key Themes

1. **Open Source diversity reflects growing global adoption.** Barriers to inclusion vary widely, far beyond typical notions of underrepresented groups.
2. **A sense of welcomeness and culture of inclusion in open source?** Segmentation shows varied sentiments around welcomeness and participation.
3. **Toxic experiences in open source are generally infrequent,** but exclusionary behaviors can have a wide impact.
4. **“We’ve come a long way...But we still have a ways to go...”** initiatives unheard of a decade ago, have become “tablestakes” for new projects created everyday.

1. Open Source diversity reflects growing adoption. Barriers to inclusion vary widely, far beyond typical notions of underrepresented groups

Q. Is open source taught as part of your school's curriculum?



What best describes your location? North America (n=53), Central and South America (n=30), APAC (n=69), Europe (n=59), Middle East and Africa (n=23), Sample Size = 234

- 1. Racial, gender... and disability, age, education, employment, caregiving, tech access and connectivity**
 - 74% of respondents had at least a Bachelor's degree. That goes up to 86% among women, and among non-heterosexuals, non-binary and persons with disabilities.
 - Overall, 95% have access to reliable internet at home. Only 80% of Middle East and Africa.
- 2. TIME: The #1 determinant for open source participation**
 - Unpaid Time
 - Networking Time
 - Time Zones
 - Professional Development Time
 - Onboarding Time
 - Discretionary Time
 - Pandemic-driven impacts

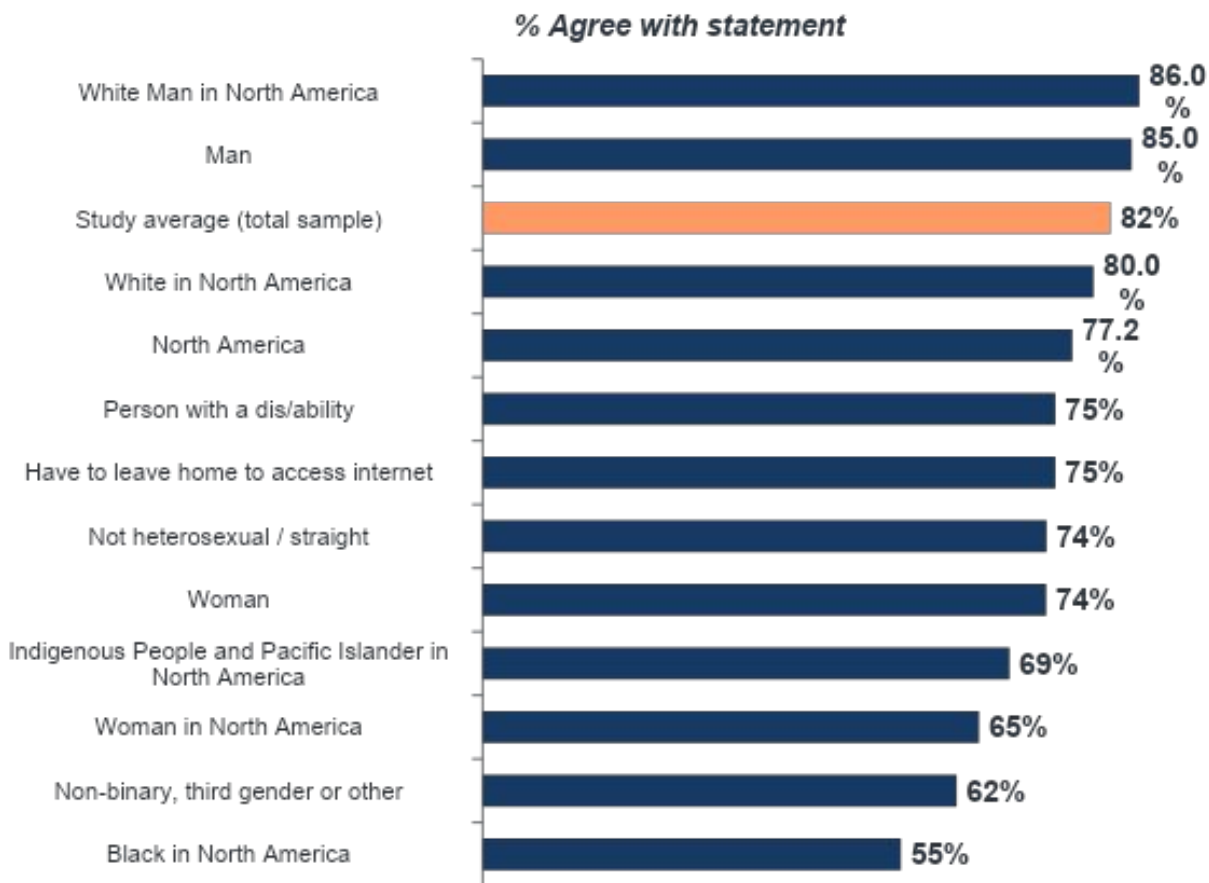
82%

feel welcome
in open source



2. 82% of all respondents feel welcome in open source, but demographic segmentations show varied sentiments

Q. To what extent do you agree or disagree with the following statement: "I feel welcome in open source"



18% disagree with this statement...

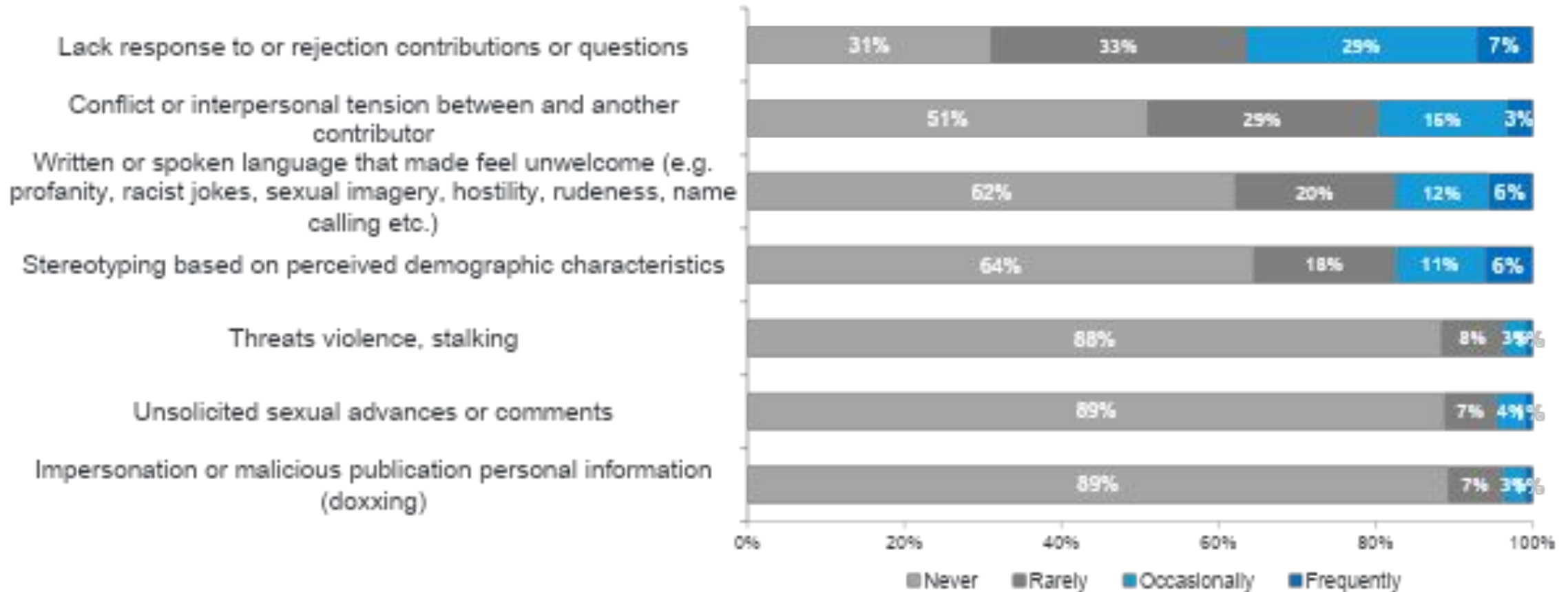
- 38% of those that disagreed also identified as being a person with a disability vs. 15% of those that feel welcome.
- 16% of those that disagreed identified as transgender vs. 3% of those that feel welcome.
- 25% of those that disagree identified as Black (North American only) vs. 7% of those that feel welcome.
- Overall, North Americans comprised 53% of all the people that felt unwelcome even though they only represented 36% of the study sample.

Disabled persons, gender, and racial groups were also less likely to agree that...

- people from different backgrounds have equal opportunities to **participate** in open source projects.
- people from different backgrounds have equal opportunities to **be part of decision-making** in open source projects

3. Toxic experiences in open source are generally infrequent, but exclusionary behaviors can have a wide impact

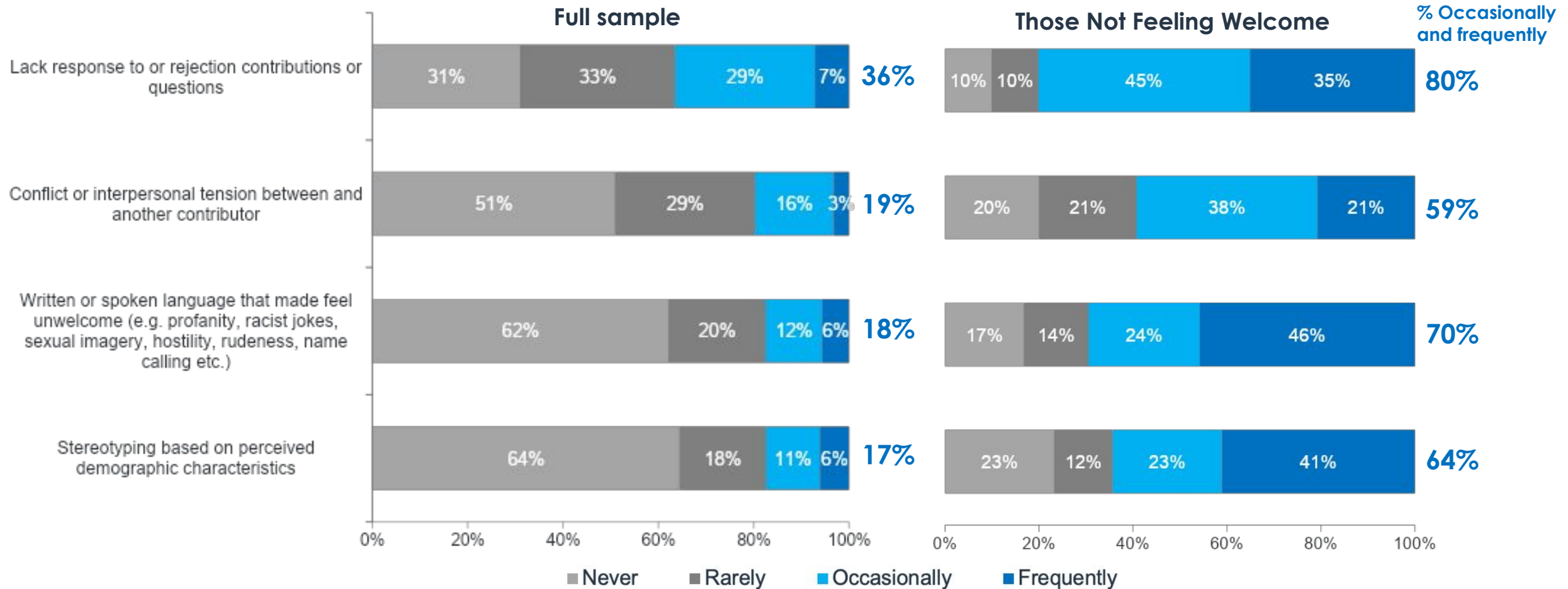
Q. Have you ever EXPERIENCED any of the following behaviors directed at you in the context of an open source project?



Base: Impersonation or malicious publication personal information (doxing) (n=2,281), Unsolicited sexual advances or comments (n=2,278), Threats violence, stalking (n=2,277), Stereotyping based on perceived demographic characteristics (n=2,276), Written or spoken language that made feel unwelcome (e.g. profanity, racist jokes, sexual imagery, hostility, rudeness, name calling etc.) (n=2,286), Conflict or interpersonal tension between and another contributor (n=2,277), Lack response to or rejection contributions or questions (n=2,282), Sample Size = 2,291

People that don't feel welcome have good reasons, they have had a lot of bad experiences.

Q. Have you ever EXPERIENCED any of the following behaviors directed at you in the context of an open source project?



Base: same as previous slide

Sample Size = 129-131, depending on the experience asked about. Respondents Included = 18%, Filter Applied, (To what extent do you agree or disagree with the following statement: "I feel welcome in open source = Disagree)

Exclusionary behaviors can have a wide impact... 34% disagree that people from different backgrounds have equal opportunities to participate

Those already marginalized... and:

Newcomers
Class
Education
Language
Digital Divide
Geographic
(Geo)-political
Professional

"The meritocracy model typically used assumes that people have a ton of time to invest to prove their 'worth', but people who need to work two jobs to make ends meet don't have this time. Likewise a certain amount of education is assumed."

"There's a strong culture of sneering in open source spaces that makes it difficult to feel safe making contributions; if I have to wonder if the work I put in offering feedback is going to get an immediate dismissal, it makes me way less likely to contribute."

"As a black nonbinary, I absolutely do not feel safe being out in most open source spaces. There are constant racist microaggressions in these spaces."

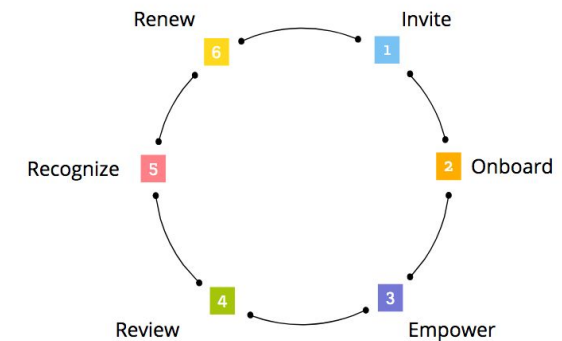
4. “We’ve come a long way” initiatives unheard of a decade ago have become “tablestakes” for new projects created everyday.



Contributor Covenant



Inclusive Leadership Cycle



Governance



Publication Dec 2021: Download the final report to read about efficacy of current initiatives and recommendations for ecosystem adoption.

Big Picture

1. The increasingly global nature of Open Source expands the barriers (and opportunities!) for inclusion.
2. Cultures vary by communities, but several groups are disproportionately impacted by exclusionary behaviors
3. We are amidst a slow shift from passive exclusion to proactive inclusion... but structural change takes a village...

Discussion

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Thank you!

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