Users of Tor Browser for Desktop and Android were invited to submit their feedback in an online survey in March 2021.

Summary

The Tor Project surveyed users from across the world about their experience using Tor Browser. This study collected both quantitative and qualitative data about users demographics, uses of Tor, what they like about Tor Browser, their frustrations, and suggested improvements.

Our findings show that the typical Tor Browser user is a young male, who has good understanding of technology and uses Tor at least once a day or week. Our users' principal complaint is the speed of the network, and Tor Browser is perceived as slow when compared to other browsers. Secondly, our users would like to see continued improvements to privacy and security.

26% of participants also gave the circumvention of censorship as a reason for using Tor – notable for being a significantly higher number than those who use bridges to access the Tor network.

The feedback collected also demonstrates that there is a misinterpretation about websites blocking Tor, with many issues expressing frustration with Tor Browser for being unable to connect to websites that block Tor.
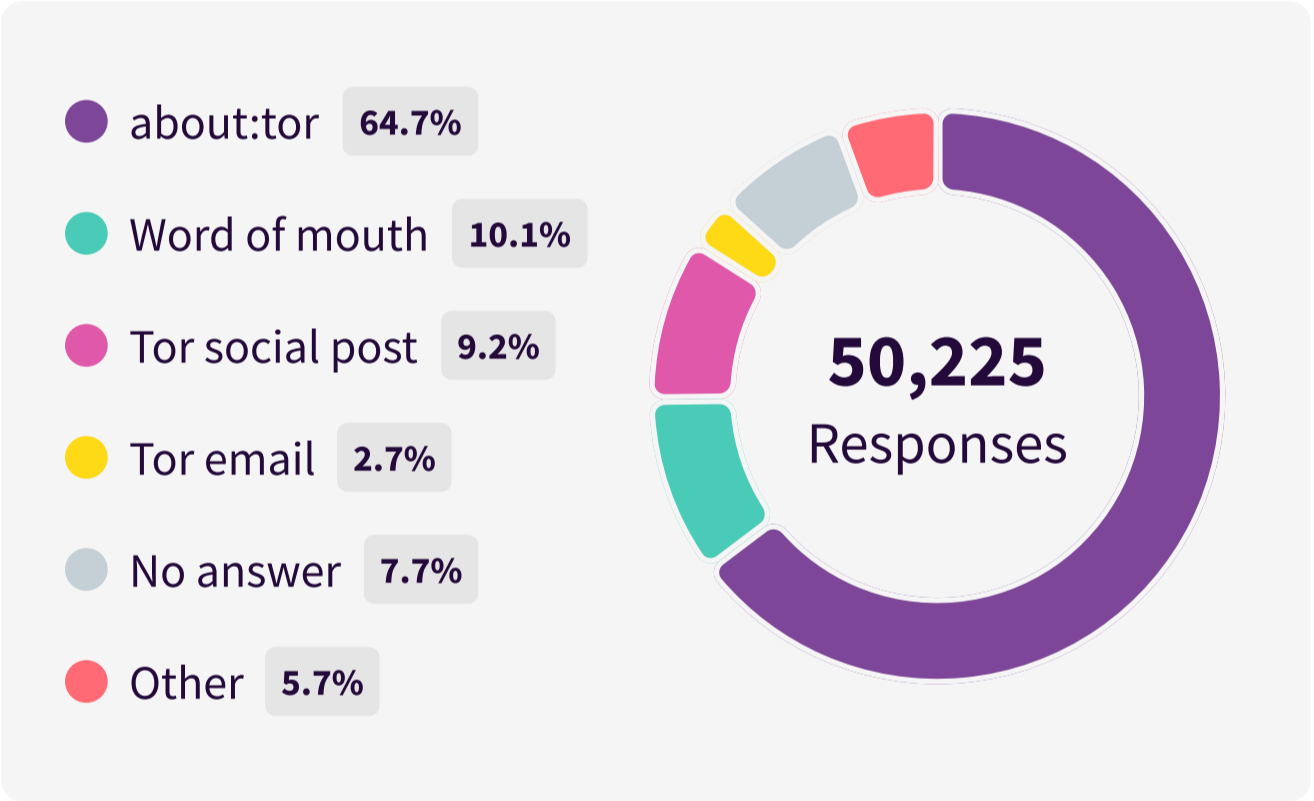
Invalid responses

Any response with random numbers (such as "1243432", "111", "000", etc); random characters (abc, aaa, bb, c, hhjj, -, .); repeating terms used for all questions ("blank", n/a, "null", "nil", "everything", "nothing", etc); personal data (addresses, phone numbers, names, e-mail addresses); offensive or unrelated remarks; and spam responses were disregarded – with the exception of those who repeatedly indicated that they were first-time users in their response.

Methodology

User feedback was collected throughout March 2021 via a self-hosted instance of LimeSurvey, with recruitment occurring via banners on the Tor Browser for Desktop and Tor Browser for Android homepages; social media and mailing lists.

The survey was split into two main parts: 1. demographic questions, and 2. user feedback questions. The demographic questions were designed to help the Tor Project ascertain if we are meeting our DEI (Diversity, Equity and Inclusion) goals, and were partially optional.

Questions about Tor itself were mandatory and open-ended, giving freedom to our users to describe their experience and any frustrations with Tor Browser in detail.

about:tor	64.7%
Word of mouth	10.1%
Tor social post	9.2%
Tor email	2.7%
No answer	7.7%
Other	5.7%

50,225 Responses

How did you hear about this survey?

The survey received 72,933 complete responses, of which 50,225 were considered valid, and 9,802 were first-time users.

Sample size and limitations

At the conclusion of the survey we discovered that some Tor Browser for Android users mistakenly believed they had to respond to the survey in order to use the browser, due to a bug with the address bar on the Tor Browser for Android homepage. This regrettable error can be seen reflected in the survey data. Participants who entered invalid responses as detailed on page 1 have subsequently been discarded from this analysis. However, as the exact scale of this issue is unknown, any conclusions made in this study should be validated by further research at a later date.

This survey received 72,933 completed responses, of which 50,225 included valid responses. Of the valid responses, 9,802 were first-time users.

In order to preserve our users' privacy we opted against asking for their location, and therefor user location has not been taken into consideration in this analysis – although some participants chose to volunteer their location in their responses nonetheless. We hope to include user location as an optional question in future studies.
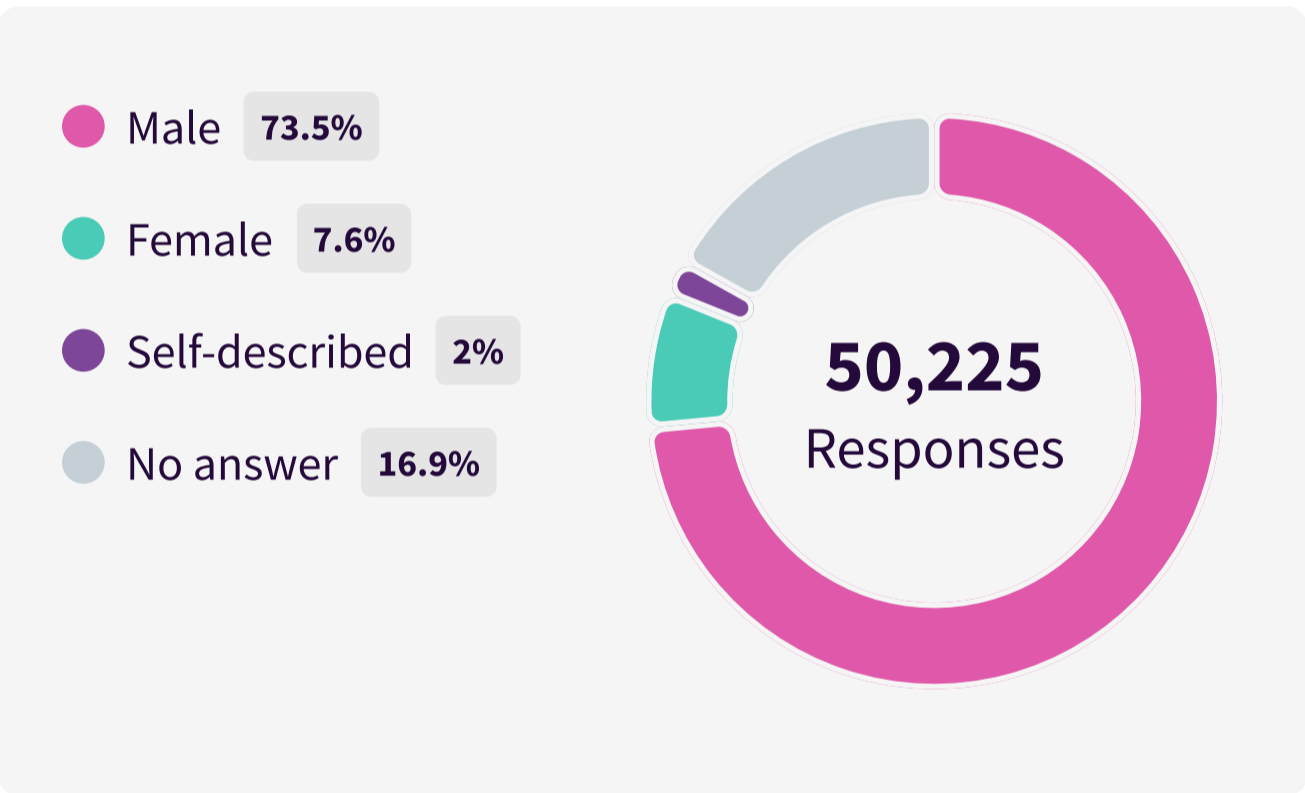
The survey was only available in English, limiting the ability for non-English speaking users to participate. Some users did answer the survey in languages other than English: due to the difficulty in accurately interpreting these responses, they have been excluded from this analysis.
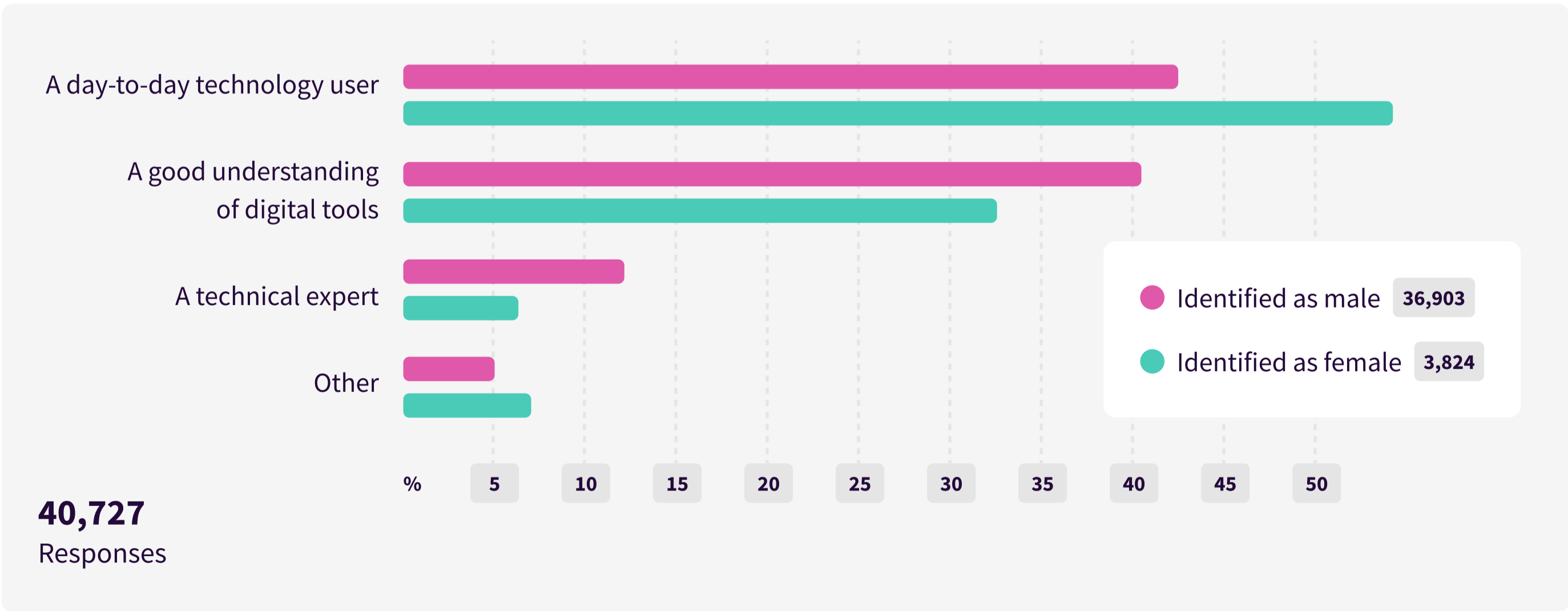
Diversity, Equity, Inclusion

Most of our participants self-identified as male (73%) and young (43%), describing themselves either as a day-to-day technology user or someone with a good understanding of technology, for whom protecting their privacy is a chief concern.

Participants who self-identified as female (7%) were similarly young (52%), and were more likely to describe themselves as a day to day technology user (54%) for whom privacy was also a chief concern.

A breakdown of how our users describe their proficiency with technology by gender can be found below.

- Male **73.5%**
- Female **7.6%**
- Self-described **2%**
- No answer **16.9%**

50,225 Responses

Participants by gender

- A day-to-day technology user
- A good understanding of digital tools
- A technical expert
- Other

| % | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |

- Identified as male **36,903**
- Identified as female **3,824**

40,727 Responses

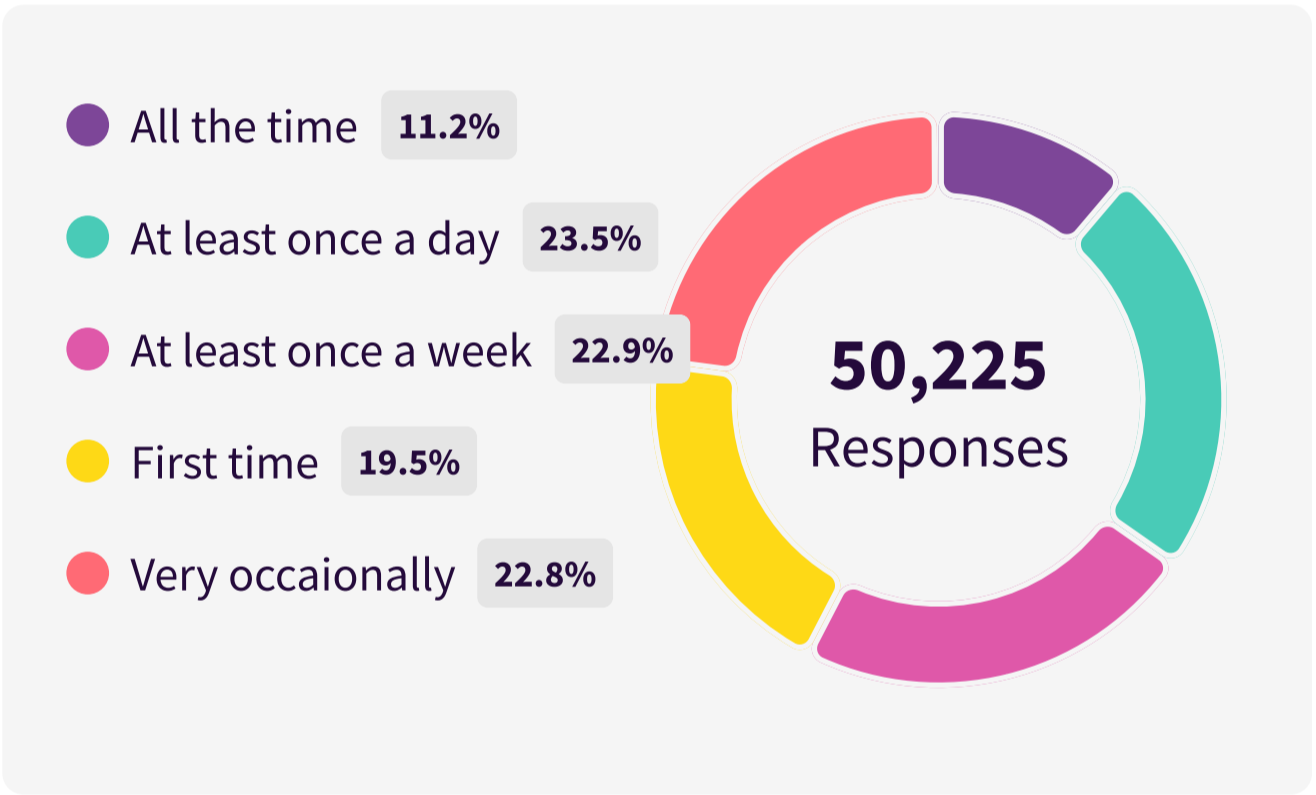*How male and female users describe their use of technology*

78.4% of participants have used Tor Browser for Android, and 54.1% of participants have used Tor Browser for Desktop at least once.

Patterns of use

The vast majority of our participants have used either Tor Browser for Desktop or Android at least once, with Tor Browser for Android by far the most popular platform. Due to each participant being given the freedom to select multiple options, there is likely a reasonable degree of overlap between Tor Browser for Desktop and Android users who selected and use both platforms.

Further, the ratio of Android to Desktop users may have been skewed due to the address bar bug described on page 2 of this study, potentially over inflating the number of participants from the former platform.
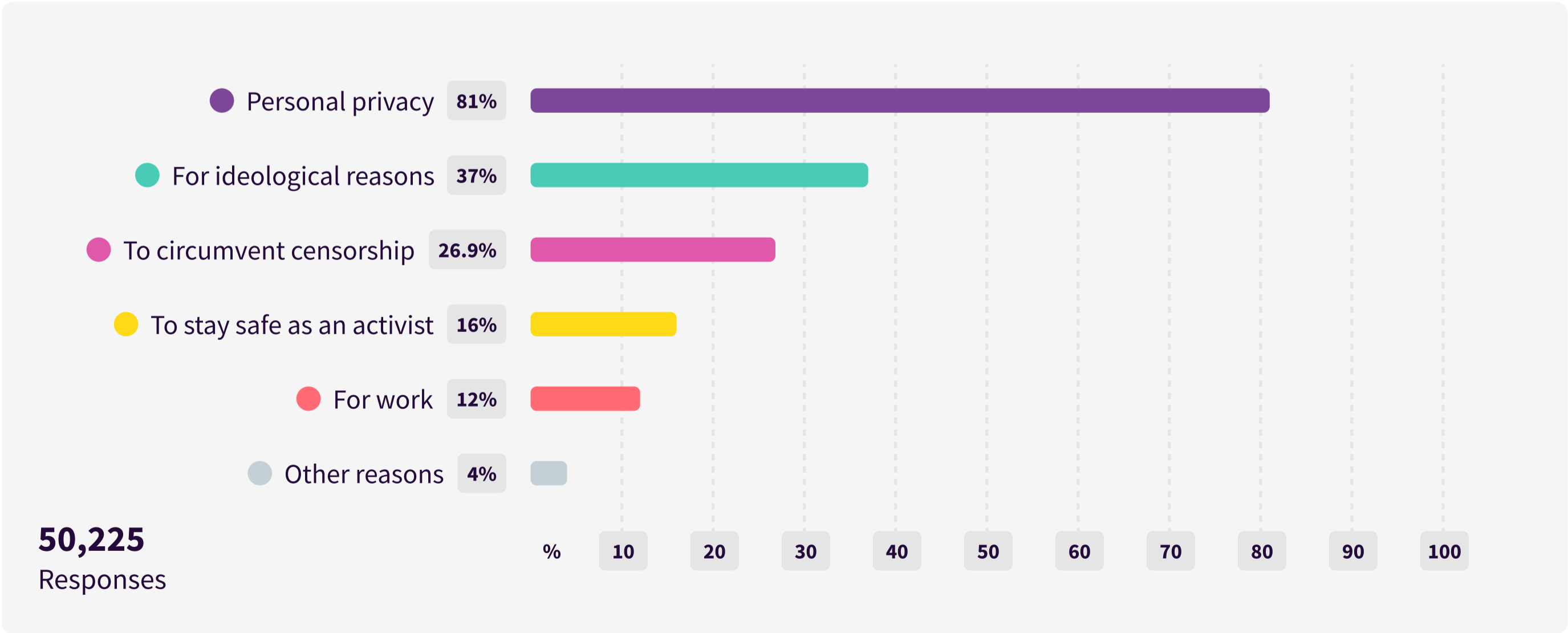
A minority of users selected Orbot or Orfox, Onion Services, Onion Browser and OnionShare when asked what Tor-related products they have used.

The survey also received a diverse range of responses to questions on technical proficiency, frequency of use, and the motivations behind using Tor – illustrated on pages 2 and 3 of this report.

- ● All the time **11.2%**
- ● At least once a day **23.5%**
- ● At least once a week **22.9%**
- ● First time **19.5%**
- ● Very occaionally **22.8%**

50,225 Responses

How often do you use Tor Browser?

Product	Freq.	%
Tor Browser for Android	39,387	78.4
Tor Browser for Desktop	27,170	54.1
Orbot or Orfox	6,160	12.3
Onion Services	5,123	10.2
Onion Browser (iOS)	2,790	5.6
OnionShare	2,320	4.6

Tor products and services by number of users

- ● Personal privacy **81%**
- ● For ideological reasons **37%**
- ● To circumvent censorship **26.9%**
- ● To stay safe as an activist **16%**
- ● For work **12%**
- ● Other reasons **4%**

50,225 Responses

% 10 20 30 40 50 60 70 80 90 100

Why do you use Tor?

Slow speeds and the blocking of Tor by websites remain some of the most significant frustrations experienced by Tor users.
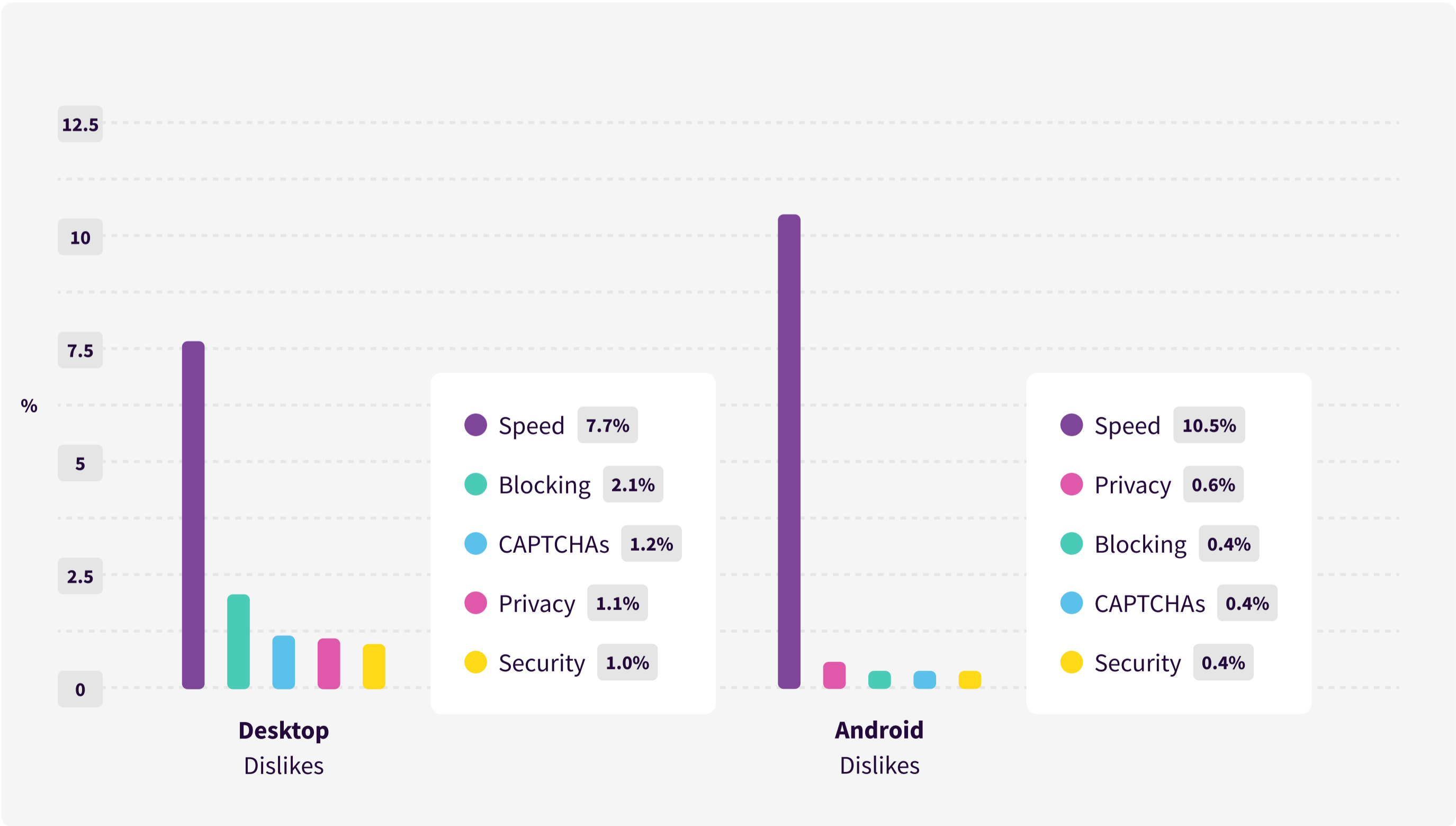
Pain points

When asked about frustrations with Tor Browser, desktop users are most likely to respond "nothing", followed by complaints about speed, being blocked from websites and CAPTCHAs. Similar to desktop users, "nothing" was the most popular response by Android users when asked about their frustrations with Tor Browser, followed by speed, privacy and websites blocking Tor.

Other – although less common – issues reported by Desktop users include:

- Difficulty locating onion services.

- Being unable to make calls via messaging apps over Tor.

- Duckduckgo not working in Safest mode.

- Conflicts between NoScript and the browser's security slider.

- Unexpected crashes and the subsequent loss of browsing history.

And less common issues reported by Android users include:

- Inability to export bookmarks.

- Inability to view bookmarks without connecting first.

- Search results "resetting" after following a link and returning.

- Difficulty using Google.

- Difficulty navigating the web.

- Bootstrapping taking too long.

Top 5 most frequently mentioned dislikes by platform

In addition to faster speeds and alleviating the blocking of Tor, participants suggested a range of useful improvements to Tor Browser.

Suggested improvements

Users were invited to list three improvements they wanted to see in Tor services. Although the majority of participants appeared content, improvements to speed, privacy, security and overcoming Tor blocking were some of the most popular suggestions – with a minority of users also mentioning the user interface and/or ease of use of the apps in general.
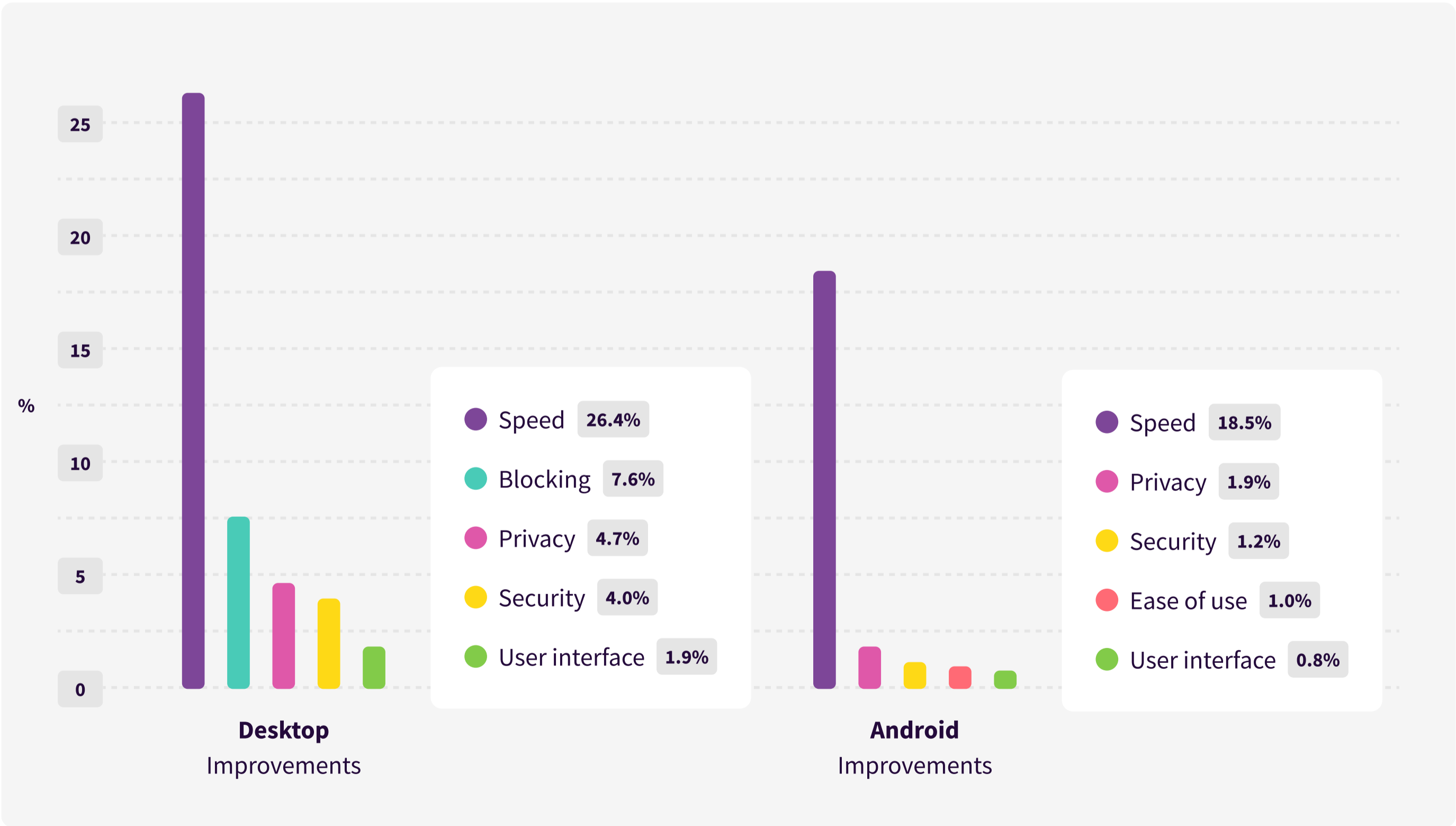
Other, less commonly suggested improvements made by desktop users include:

- Updated documentation.
- A moderated forum.
- Improved and/or more informative letterboxing.
- Improvements to the new identity button and functionality.
- The ability to password protect Tor Browser.
- Faster bootstrapping.

And less commonly suggested improvements by Android users include:

- The ability to clear identities per tab.
- The ability to restore tabs.
- A forum for advanced users.
- The ability to choose a circuit.
- Dark mode.
- An adblocker included by default.
- A newsletter for novice users.

Survey participant also left a significant volume of positive feedback, recognizing the progress made in improving Tor Browser's user experience, its features and functionality, and the Tor Project's mission in general.

Desktop Improvements		Android Improvements	
Speed	26.4%	Speed	18.5%
Blocking	7.6%	Privacy	1.9%
Privacy	4.7%	Security	1.2%
Security	4.0%	Ease of use	1.0%
User interface	1.9%	User interface	0.8%

Top 5 most frequently suggested improvements by platform