Report on Wikipedia Portal Visitors

A Look At Session Lengths

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Executive Summary

This report is a replicate of Mikhail's report on June 2, 2016, based on the event logging data in June and July 2016.

Our main conclusion remains the same. We found that the most common session length is approximately 10 seconds, and that majority of the sessions are shorter than 1 minute. Around 80% of the English-using visitors' sessions are shorter than 1 minute, and same for United States visitors, while only 55% of the Russian-using visitors' sessions are shorter than that.

Data

The event logging (EL) data was extracted from the database using the script data.R and refined into sessions using refine.R.

Throughout the report "session length" is calculated as the arithmetic difference between the last recorded event and the first recorded event from a user, uniquely identified by a combination of: session ID, user agent, and language preferences. These are used in tandem to correct for possible session ID clashes.
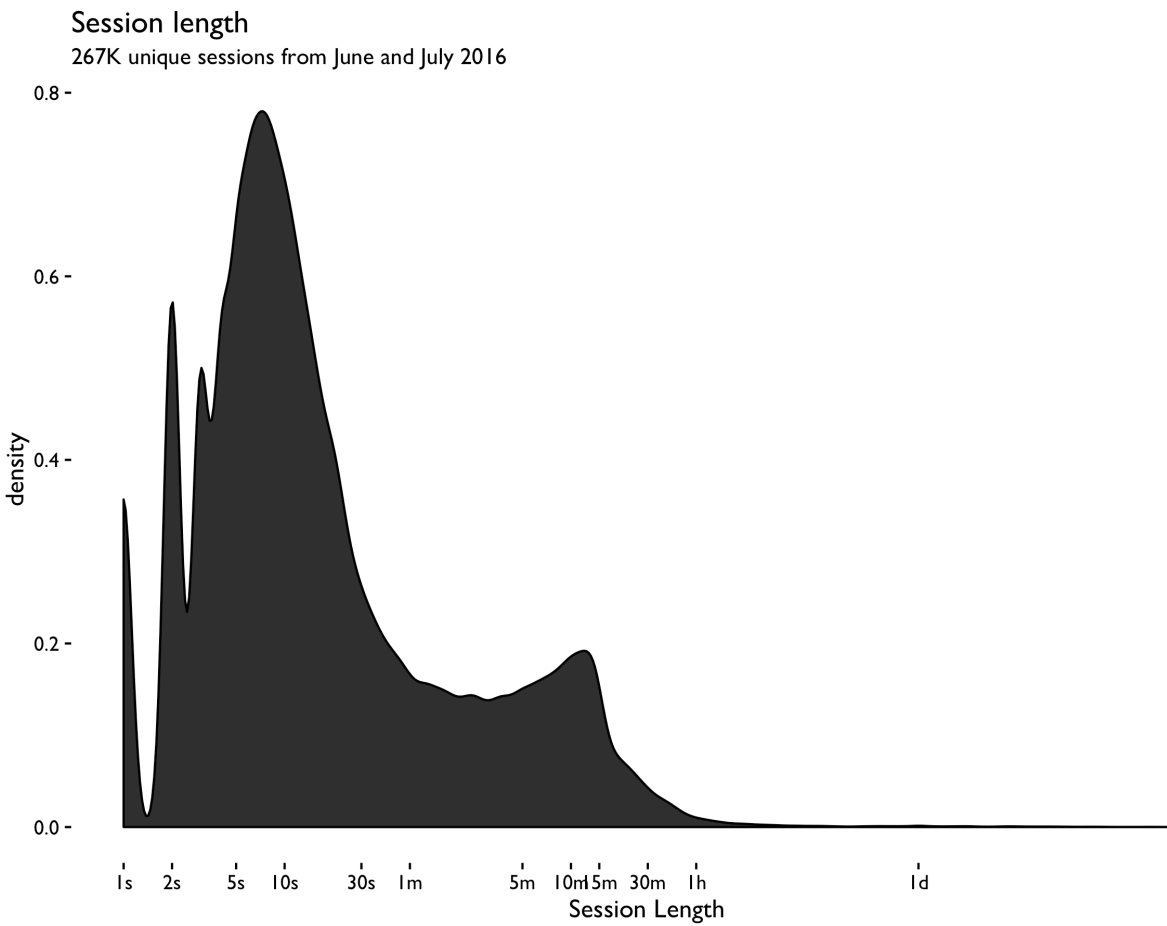
Results

Session length
267K unique sessions from June and July 2016

Figure 1: The peak is at 10 seconds, which is a session length that we will see in other figures. Very few sessions last longer than 30 minutes.
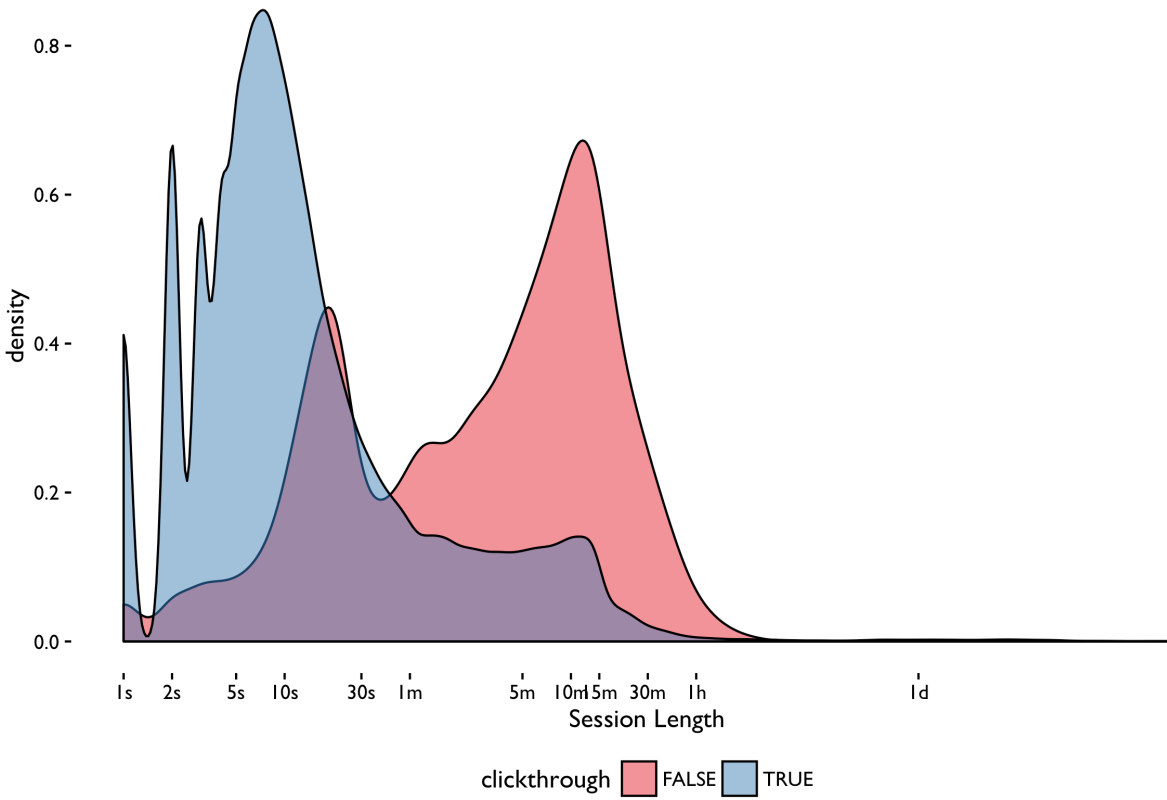
Figure 2: *The second peak around the 15 minute point in the previous figure is mostly explained by the sessions that visited multiple times but never clicked through.*

Session lengths by number of visits
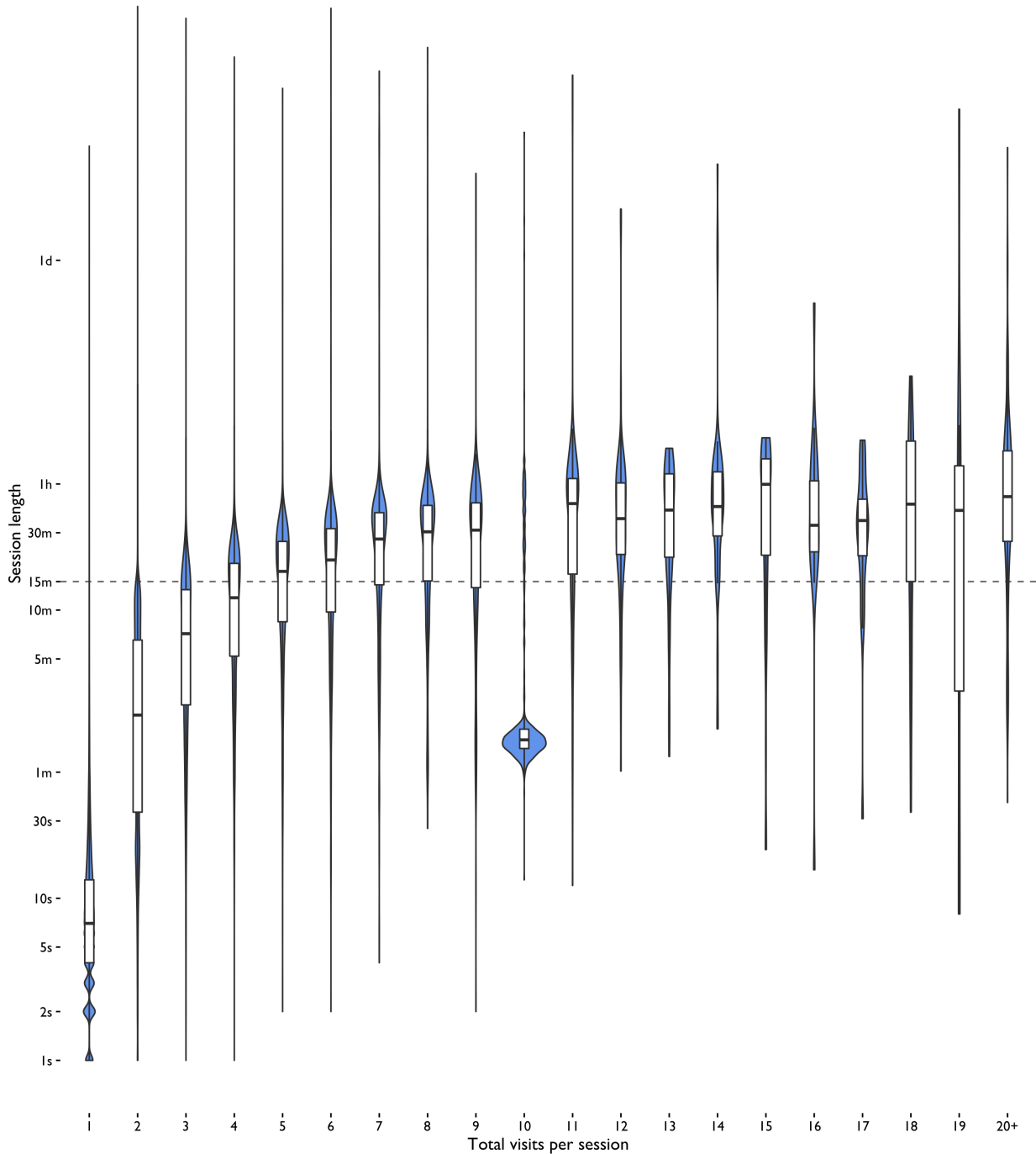267K unique sessions from June and July 2016

Figure 3: A large portion of the 1-visit sessions lasted between 5 and 10 seconds, with most of those sessions lasting between 5 and 30 seconds. Most of the 2-visits sessions lasted between 30 seconds and 10 minutes (or 15 minutes, if we want to be more inclusive). Then, as number of visits per session increases, the session length also increases at a slow rate.

Session "survival" curve by most preferred language
170.1K sessions; top 30 languages by volume of sessions; black curve is smoothed median

67% of Russian-using
sessions lasted longer than 10s

49% of Eng. sessions
lasted longer than 10s

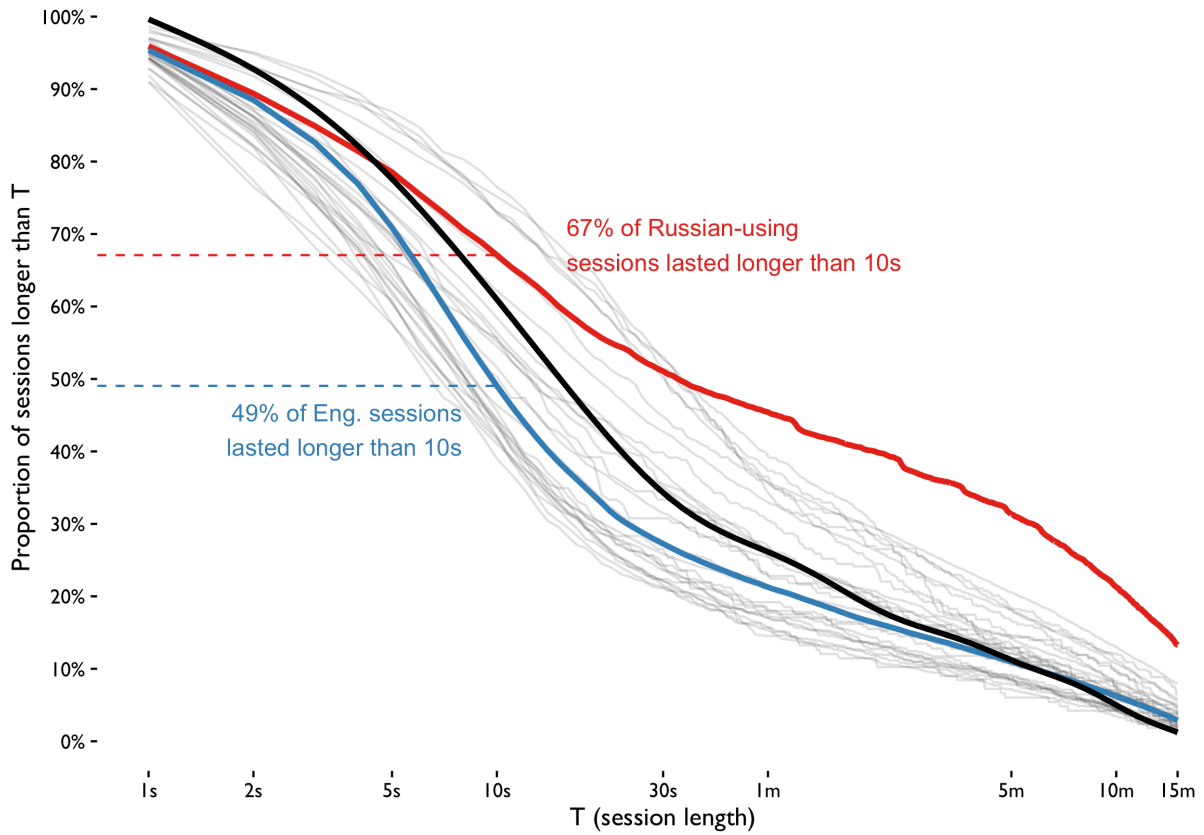Proportion of sessions longer than T

T (session length)

Figure 4: This is a survival curve (broken down by most preferred language) that we can use to get an idea of how users of different languages (such as English and Russian) have sessions of very different lengths. Specifically, English-using visitors have shorter sessions than the average (median) of all languages, while Russian-using visitors have longer sessions.

Proportion of sessions longer than T length of time

170.5K sessions; top 100 countries by volume of sessions; black curve is smoothed median
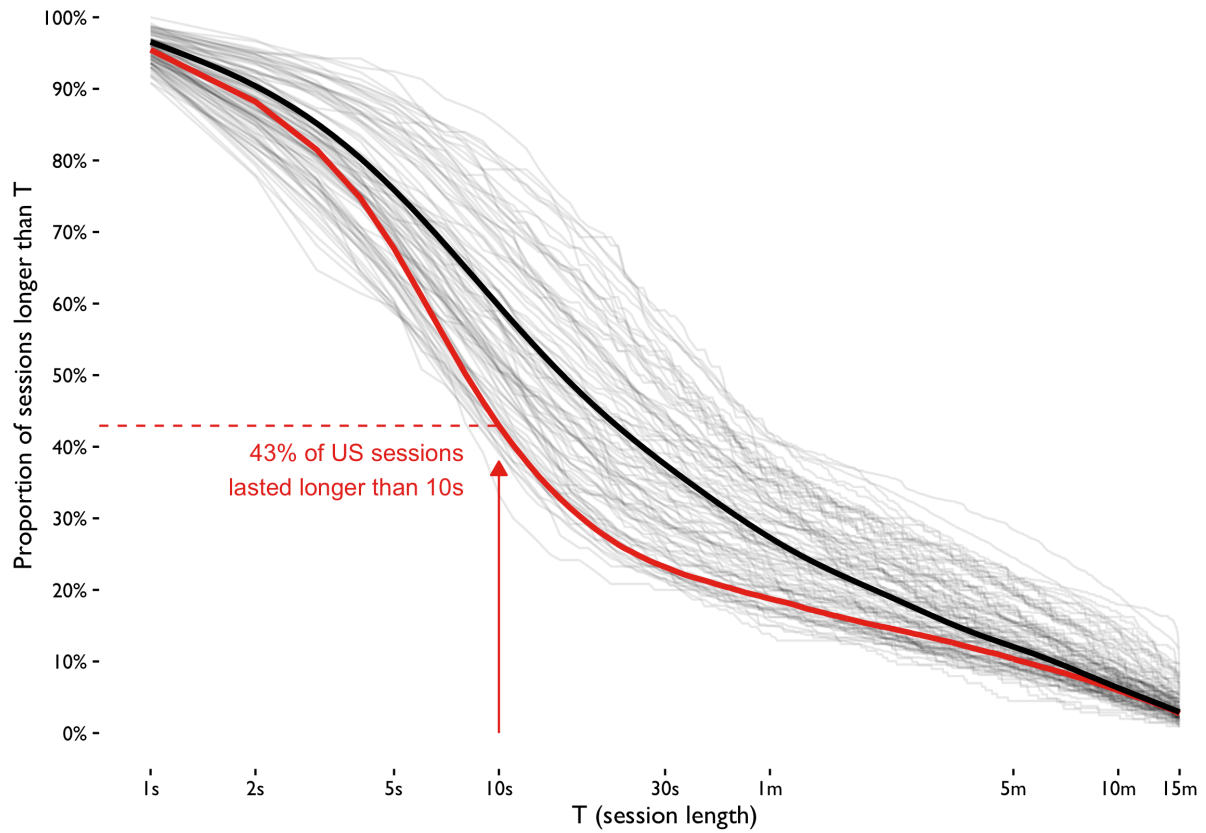

43% of US sessions
lasted longer than 10s

Figure 5: This is a survival curve (broken down by country) that we can use to get an idea of how users of different countries have sessions of very different lengths. Specifically, US visitors have shorter sessions than the average (median) of all countries.
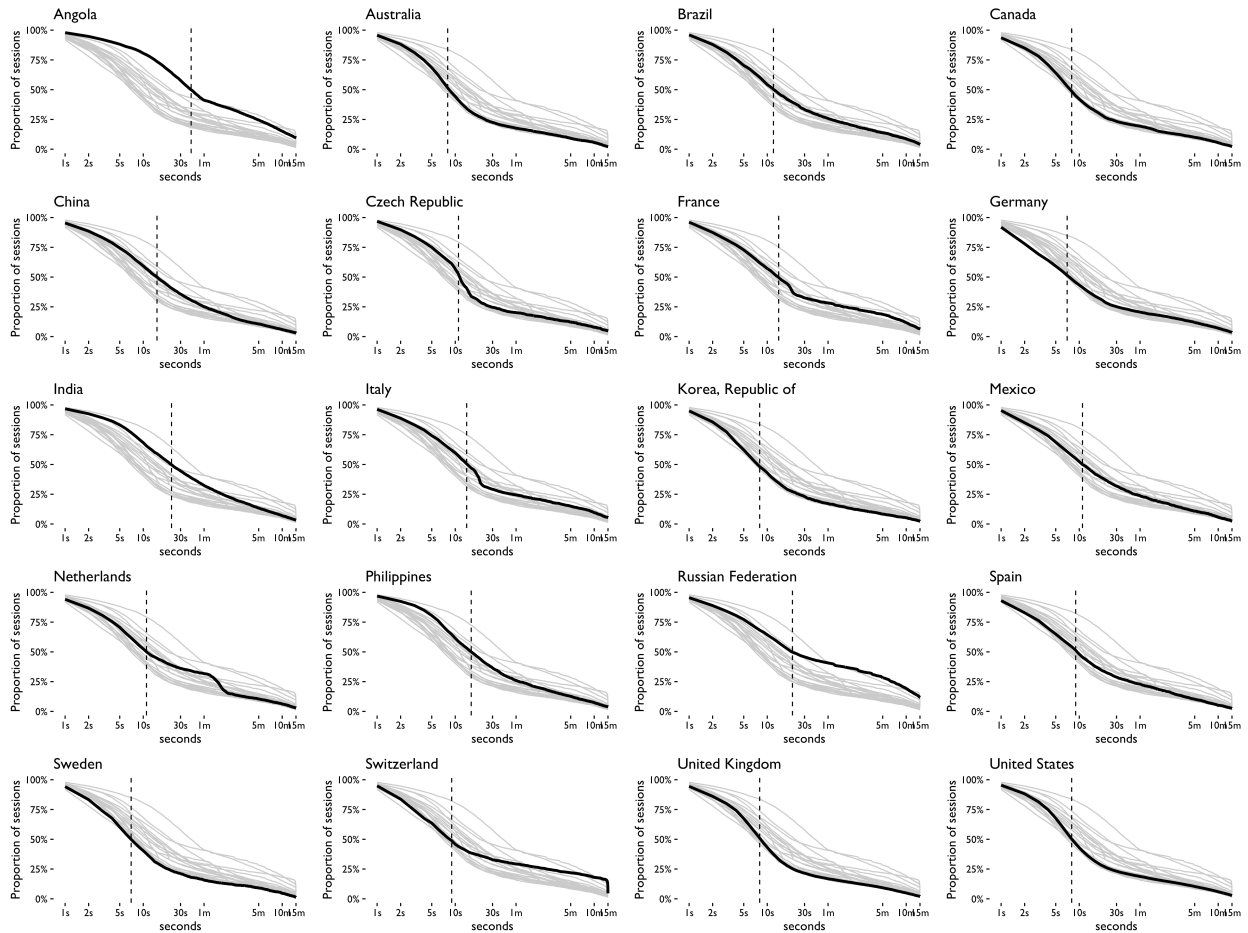
Figure 6: These are the top 20 countries (by volume of sessions) with the dashed vertical line indicating the time point at which approximately half (the median) of the sessions have ceased, a different time point for each country. For example, this point is 8 seconds for United States & United Kingdom, but 20 seconds for Russia.

7

Median session length by country
170K unique sessions from June and July 2016; top 20 countries by # of sessions

median first visit session length

Country	
United States	7s
United Kingdom	7s
Switzerland	7s
Sweden	6s
Spain	7s
Russian Federation	15s
Philippines	12s
Netherlands	6s
Mexico	8s
Korea, Republic of	6s
Italy	11s
India	13s
Germany	6s
France	10s
Czech Republic	10s
China	8s
Canada	7s
Brazil	9s
Australia	8s
Angola	23s

median session length

Country	
United States	9s
United Kingdom	9s
Switzerland	9s
Sweden	7s
Spain	10s
Russian Federation	21s
Philippines	17s
Netherlands	12s
Mexico	11s
Korea, Republic of	8s
Italy	15s
India	23s
Germany	8s
France	14s
Czech Republic	12s
China	16s
Canada	8s
Brazil	13s
Australia	9s
Angola	41s

median time to first click from first visit

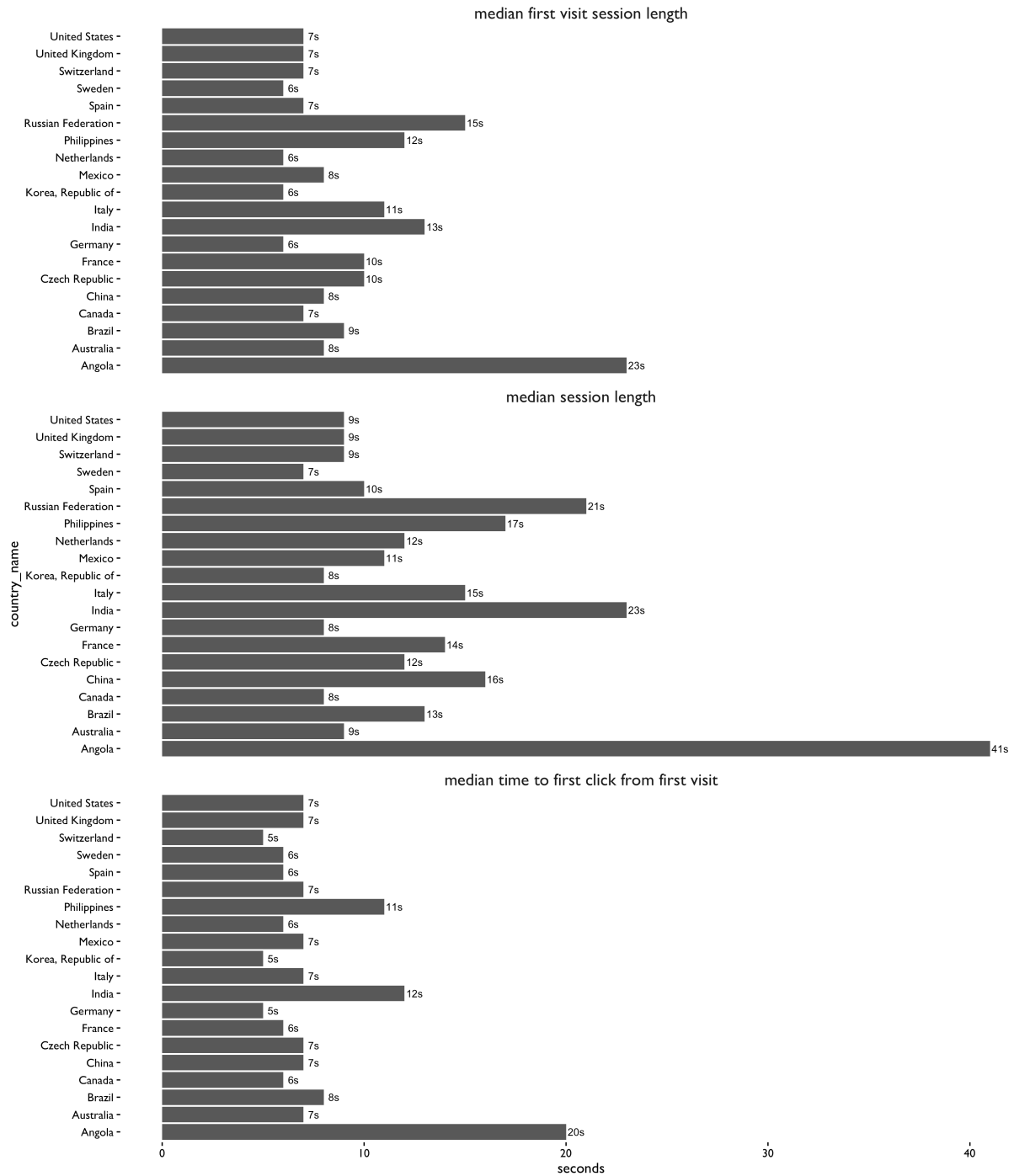| Country	
United States	7s
United Kingdom	7s
Switzerland	5s
Sweden	6s
Spain	6s
Russian Federation	7s
Philippines	11s
Netherlands	6s
Mexico	7s
Korea, Republic of	5s
Italy	7s
India	12s
Germany	5s
France	6s
Czech Republic	7s
China	7s
Canada	6s
Brazil	8s
Australia	7s
Angola	20s

seconds

Figure 7: Median first visit session length, median session length, and median time to first click from initial landing by country.

8

Time to first clickthrough from initial landing

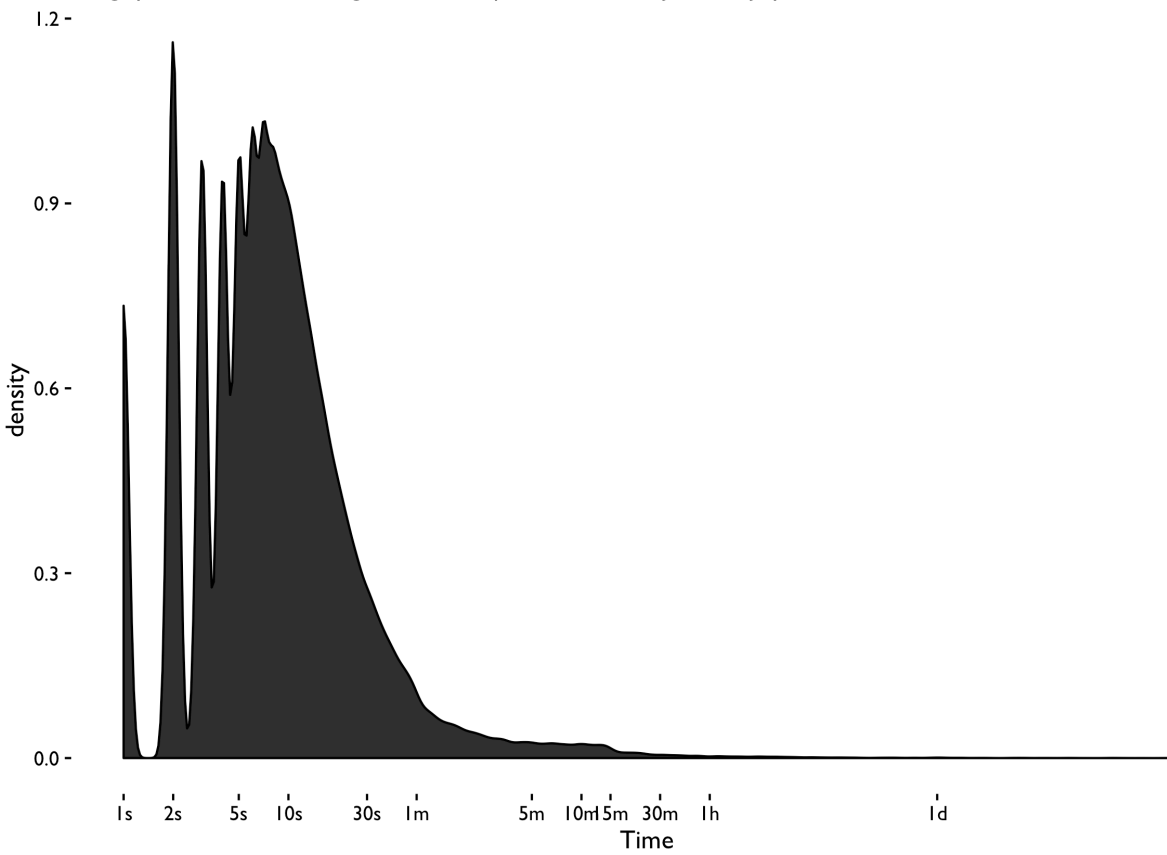Roughly "first visit session length"; 242K unique sessions from June and July 2016

Figure 8: A vast majority of sessions take between 1 and 60 seconds to click from their initial landing on the Portal page, with a peak around the 10 second point.
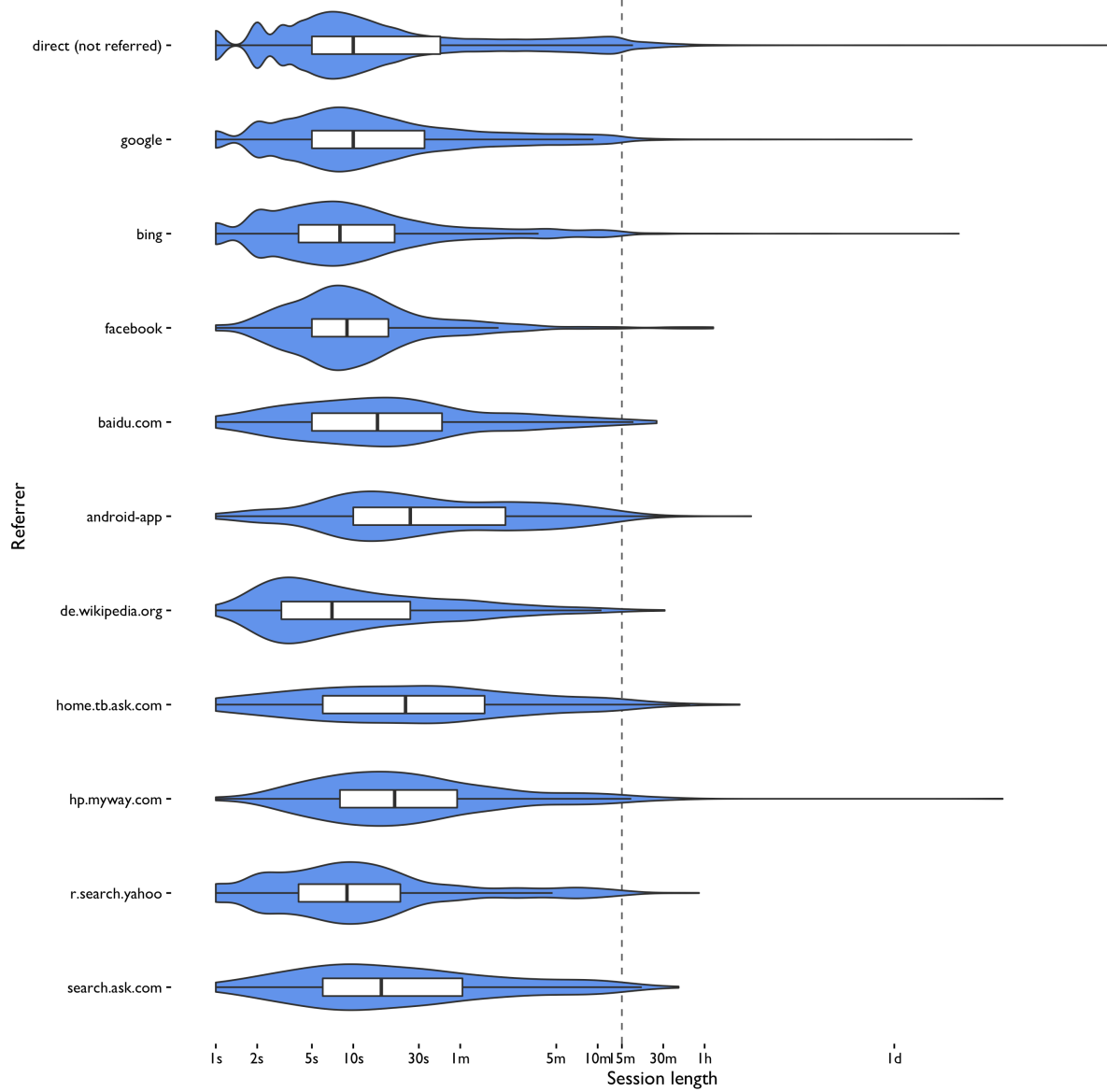
9

Figure 9: Distribution of session lengths by referrer.