

Executive Summary

Tor project team conducted usability tests in Kenya from August 30th to September 5th, 2018. One testing was done at the Swahili Pot in Mombasa on August 30th, followed by Nairobi Garage on the 3rd-4th of September. The purpose of the tests was to assess the usability of onions and circuit display using Tor browser alpha version 8.

As a whole, 9 participants were tested on onions and 18 participants were tested on circuit display. In total, 21 participants were tested. 81% were female and 19% were male.

The onion test identified only a few minor problems including:

Confusion about the difference between the onion icon and the onion with a padlock.
Confusion about the green onion with a yellow warning sign and the grey onion with a red line.
Most users couldn't identify the different level of security denoted by the onion states.
Users see the onion icon as being an icon for Tor project and not necessarily as an indication of an onion website.

The circuit display test identified a few major problems including:

Confusion over the terminologies used. The most apparent problem is the participants perception of Guard//Circuit//Node. In addition, many users relate 'Circuit' with its meaning in electricity.
Most users cannot find information about 'Guards'.
Users couldn't tell if they connected by a bridge.

Methodology

Tor community team organized 4 Internet security and privacy online workshops in Kenya. They connected with participants with the help of volunteers from community networks in Kenya. Emails were sent to attendees informing them of workshop logistics and requesting their availability and participation.

We took advantage of this activity to conduct UX testing one hour before the close of each workshop. Each individual testing session with a participant lasted approximately 5 minutes. Before starting the tests, we explained objectives of the test and why honest feedback was so important. Additionally, the participants were asked if they would consent to being recorded.

Each test began with a set of demographic questions followed by the test questions
Summary of demographics

The demographic data indicates that most participants were using Tor for the 1st time but would describe themselves mostly as day to day technology users. We had a total of 21 participants for these tests. 4 were male participants and 17 were female participants.

Table 1: showing summary of demographic data.

Participants	Gender	Aged 20-50	New user	Day to day tech users	Technologist
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Male	19%	100%	98%	100%	
Female	81%	100%	100%	100%	

Results

The tables below are score boards showing how participants ranked on each test. To summarise the results, I have used a set of 'indicators' that capture test objectives outlined in the Sponsor 9 action plan.

=The green shades indicate that the participant tested positive for the indicator.

=The red shades indicate that they tested negatively for an indicator.

Table 2 :showing results of the Onion states test

Questions	Confidence	Hesitation	Correct answer	Wrong answer	Not sure	No answer
0	5	0	5	0	0	0
1	4	1	√	√	√	0%
2	0	4	√	√	√	0%
3	3	5	√	√	√	0%
4	5	-	-	-	√	0%
5	√	-	4	√	√	-

x(Test questions)

y(Indicators)

Table 3 :showing results of the Circuit Display test

Questions	Confidence	Hesitation	Correct answer	Wrong answer	Not sure	No answer
1	0	5	1	4	5	0
2	4	2	4	1	5	0
3	1	5	2	4	5	0
4	0	5	1	4	5	0
5	0	5	0	5	5	0

Conclusions

General conclusions

The participants tested on both the onion states and circuit display were well rounded group in terms of tech skill, gender and occupation.

Their main occupation is working with NGO and other civil society organisations and a few university students

The participants had limited knowledge and usage of Tor and Tor products although they represent a part of the community which would benefit greatly from using Tor. A communications strategy aimed at this sort of community would create more Tor usage.

Specific conclusions

The outcome of the circuit display test and interaction during interviews shows that the topic is understood. However, the users seem confused by the terminology (i.e. guard,node,circuit) but they generally understand the concepts behind it.

The outcome of the onion test shows that participants have some trouble differentiating onion states as they infer to security levels. Perhaps this is the implication of using icons with a similar shape and color scheme. We found that most users cannot correctly identify what each icon means, why and how they are different other than by color. However, in general, they were able to comment on the different levels of security.