In order to gather, aggregate and analyze the responses to our three surveys, we have implemented an application. This application is supposed to aid in the collection of the information as well as in the process of drawing conclusions from the data. In the future, it will also be able to export the information in an excel sheet.

Upon agreeing to participate in the experiment, the participant is given a number (from 1 to 3) which represents the survey he/she will take part in and a second number (from 4 to 6) representing the group (4 - control, 5 - experiment group, 6- experiment group disabled). After interacting with the sites given by the researcher, the participant will log into the app using these two numbers and will be presented with the questions from the respective survey and will afterwards log out.
At any point, the researcher will be able to log in and ask for analysis of the data so far gathered.

The code is written to be able to draw simple conclusions that support or contradict our hypothesis. (e.g. if the site most liked by the experiment groups is responsive, but the site most liked by the control group is not => responsive sites are preferred. The opposite result would show that responsive sites are disliked. If the most liked site of the experiment group is responsive and so is the one from the control group or both of them are not responsive, then no conclusion can be drawn and the hypothesis is neither confirmed nor contradicted)
Using such an application ensures that the likelihood of human error is extremely slim, as no person comes in between the answers and the conclusions.

+the application can also give statistics, how many people

Initial Results

After gathering responses from the 450 participants (50 for each group, for each phase of the experiment) using the aforementioned application, we have reached the following:

Experiment 1:

- 64% of the control group preferred to use a mobile device over a computer, while 87% of the participants in the experimental groups preferred mobile devices. This shows that having responsive sites can improve the overall experience with a certain

device. However, since this was not the purpose of our experiment, such a conclusion cannot be clearly drawn or generalized.

- In the control group, the most liked site (~43%) was SITE3 (not responsive), while in both of the experimental groups (~32% and ~40%) it was SITE5(responsive).
- When asked what they liked about the site they rated most, over 60% of the participants named reasons such as colors and overall design, in control and experimental groups.
- In more than 90% of the cases, the most liked site coincided with the site named as "most easy to use", both in the control and experimental groups.
- In the control group, 23 participants (AICI STATISTICA) said they know what responsive web design means. In the experimental groups, the results were 31 (AICI STATISTICA) and 20 (AICI STATISTICA)respectively.
- In the control group, only ~15% of respondents named one or more sites as being responsive. In the experimental groups, this percentage grew up to 62% and 57% respectively. Over 80% of the sites named in this question were, in fact, responsive (in the experimental groups).

Experiment2:

- In the control group, the most liked site was SITE2, while in the first experimental group it was SITE3 and in the second experimental group it was SITE5.
- In the control and first experimental group the most liked site and the easiest to use site were the same in less than half of times. In the second experimental group, this percentage was over 80.
- In the control group, 43% of respondents said they know what an accessible site is. In the first experimental group, 57% of the respondents knew. In the second experimental group, 96% of the group knew.
- The control and first experimental group had trouble identifying the accessible sites. The second experimental group identified correctly in more than 78% of times.

Experiment3:

- The most liked site by the control group was SITE2. The most liked site by the first experimental group was SITE7. The most liked site by the second experimental group

was SITE12. SITE7 is designed as responsive and SITE12 is both responsive and accessible.

- In the control group, the most liked site was rarely (~23) the saame as the easiest one to use. In the experimental groups, this corelation was frequent (~68% and 83%).
- In the control group, only 38% of participants could tell what responsive web design means, and ~42% could say what accessible web design means.
  In the first experimental group, 49% knew about responsiveness and 62% about accessibility.
  In the second experimental group, 41% knew about responsive web design and 94% knew about accessibility.

Demographics:

- Out of the 450 respondents, 328 are employed, with 196 of them in the IT sector.
- When it comes to gender, the participants were mostly men (59%). This is most certainly due to the fact that participants were chosen by convenience, in general from universities where there are significantly more men than women.
- 412 (STATISTICA) participants were from Romania, while the rest of them were from inside the EU.
- All of the participants have completed highschool and most of them are currently attending undergraduate studies.

Conclusions:

Following the above mentioned data, we were able to draw a few conclusion related to the nature of out hypothesis.

H1: Users prefer responsive sites over unresponsive ones when using both a computer and a mobile device

Judging by the results of the first experiment, responsiveness does seem to affect the way a user perceived the interaction with a site when using both a computer and a mobile device. Preference for mobile devices was significantly larger in the groups that also interacted with responsive websites. Moreover, the most liked site was a responsive one in the experimental groups and did not coincide with the one chosen by the control group.

Moreover, since over 90% of the participants named the best site as the site most easy to use, it is clear that ease of use influences drastically the way a user perceives a site.

Therefore, H1 is confirmed.

H2: Users prefer accessible sites over inaccessible ones when browsing both kinds

In the case of this hypothesis, things are a more difficult. The results show that the disabled group significantly preferred to browse an accessible site over an accessible one. Hoever, the abled-bodied group showed no preference in this regard. This is probably due to the fact that most people give little to no importance to the accessibility part of a site because it does not affect their interaction with said site.

Even so, taken into account that the majority of the disabled group preferred these types of sites, we can affirm that it is important for web developers to go the extra mile and include accessibility on their agenda.

H2 is only partly confirmed - Disabled users prefer accessible sites over inaccessible ones

H3: Able-bodied users are more likely to notice and prefer responsive sites, while disabled users will prefer accessibility over responsiveness.

Although it appears that disabled users did notice accessibility more than they did responsiveness, and shown a great interest in the former, this hypothesis can neither be confirmed nor denied as it turned out to be outside of the scope of our research. More data is needed to be able to draw an accurate image, including having the same group of participants interact with accessible and responsive sites. Although we did do that in experiment3, the information gathered is not conclusive in any way.

H4: Sites having a combination of responsiveness and accessibility will be preferred by users.

This hypothesis is confirmed, as the sites ranked top by the majority of the experimental groups were sites that included both accessibility and responsiveness. This can be due to the fact the accessible sites tend to have more contrast between the colors and are easier to use, even for abled-bodies people.