

# BITS F364: Human Computer Interaction

## Assignment 2

### Part A

The assignment's objective was to test the usability of a website based on 2 criteria, namely-

1. Average Link Load Time (A)
2. Fraction of Dead Links (B)

We were provided with 5 websites for testing on the above grounds. The results, as an average of the above, are as follows –

Website	A	B	Website Score
<a href="https://nrega.nic.in/netnrega/home.aspx">https://nrega.nic.in/netnrega/home.aspx</a>	0	0.02919708	0.01459854
<a href="https://www.usa.gov/">https://www.usa.gov/</a>	0.06978899	0	0.0348945
<a href="https://www.bits-pilani.ac.in/">https://www.bits-pilani.ac.in/</a>	0.0498523	0.04483431	0.04734331
<a href="https://www.isro.gov.in/">https://www.isro.gov.in/</a>	0.54800753	0.08035714	0.31418234
<a href="https://medium.com/">https://medium.com/</a>	1	0	0.5

Since the parameters were arranged such that the website with the least score will be the best among the sample data, the ranking of the websites would be as follows –

<https://nrega.nic.in/netnrega/home.aspx> < <https://www.usa.gov/> < <https://www.bits-pilani.ac.in/> < <https://www.isro.gov.in/> < <https://medium.com/>

Thus, ordering them in a list with best being the first, we have the rankings as –

1. <https://nrega.nic.in/netnrega/home.aspx>
2. <https://www.usa.gov/>
3. <https://www.bits-pilani.ac.in/>
4. <https://www.isro.gov.in/>
5. <https://medium.com/>

Now we examine these results parameter-wise.

- **Parameter A:**

Here we first obtained the average link load time for all the links present on the homepage of a website. Then, we normalized these values for our data and obtained the 'Normalized Average Link Load Time' for all. The lower the value, the lesser the average of time taken to load links on the website. Hence, a lower score here indicates a better website.

It was observed that while <https://medium.com/> performed the worst, the website that topped the list with the least score was surprisingly <https://nrega.nic.in/netnrega/home.aspx>, a government website. Usually, the image

associated with the Indian government websites is often poor, since many are found to be malfunctioning and poorly-built and designed. The observed results hence challenged these notions.

- **Parameter B:**

Here we obtained the fraction of dead links present on a website's homepage. Again, a lower score indicates lesser dead links and therefore, a better website.

2 websites, namely - <https://www.usa.gov/> and <https://medium.com/> excelled here perfectly by scoring a 0. While 2 of the rest 3 figures were quite small, the fraction of dead links on <https://www.isro.gov.in/> was the most, nearing around 8% of the total links.

- **Overall Observation:**

Gathering these results together, the score declared <https://nrega.nic.in/netnrega/home.aspx> as the winner. While it did contain some dead links, what made this website win was the least average load time among the rest.

However, the <https://www.usa.gov/> can also be considered as a very well-built website since out of a total of 561 links, there were 0 dead links, which is a commendable job on the part of the designers. If we ignore the slightly higher average link load time, <https://www.usa.gov/> would certainly beat <https://nrega.nic.in/netnrega/home.aspx> since the Indian govt website has lesser total number of links compared to the US one, a mere 137.

Although <https://www.bits-pilani.ac.in/> couldn't win, it certainly did a good job that secured it the 3<sup>rd</sup> position. With total number of links being 513, the fraction of dead links was quite low and the average link load time was also, if not too much, at least considerably low.

<https://www.isro.gov.in/> performed quite below expectations, with the highest fraction of dead links. While the loading time wasn't that bad, so many dead links on the website of a body of national importance can't be overlooked.

The last spot was held by <https://medium.com/>. Although the UI and design were amazing, what brought it down was the surprisingly high amount of average link load time. In spite of having 0 dead links, the highest loading time among the 5 was what dragged it to the bottom.