

HEURISTIC EVALUATION PLAN

CS-302 Intro to Human Computer Interaction

Group G-4

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EVALUATION OF THE WEB SITE

<https://www.hec.gov.pk/>

HE Plan of 08 December, 2020

1 Executive Summary

1.1 Product and Goals

In this report, we perform heuristic evaluation of <https://www.hec.gov.pk/>. This is the website of higher education commission. Our main goal during this heuristic evaluation was to check/evaluate the usability of this website with some set of heuristics techniques and provide a set of issues related to this website for the website developers. So we believe that our findings will make the interface better in future when the developers want to update it.

1.2 Methods

During this evaluation, we use “Andrews General Usability Heuristics”. The findings are recorded by each team member independently by performing the tests several times and after this; we rate each issue in range of 1-5 depending upon their severity.

1.3 Findings

In this usability test, we identified more than 65 issues. 5 of them are severe and need to be fixed ASAP. They are described in details below

Sign in option:

The sign in option is at the bottom right corner and not visible to novice user because he will be looking at the top right corner. Nearly all the websites have sign in option there.

Ambiguity in error message OR no error message:

During the sign in process, when the user enters incorrect password or username, the website does not show any error message instead it just reloads the page.

Irreversible pages:

There is no way of moving back to accreditation section. This is a common feature in most websites.

Outdated information in Tenure Track Funding:

Only from 2004 to 2015 data is available. Nearly all the websites update their data every week or every month.

Homepage banners permalinks:

The icons on banners must be clickable and allow a user to redirect to that particular website. But these are not working in this way. When we click on any icon on a banner, it redirects to the HEC website itself.

2 Introduction

Researchers utilized "Andrews Common Ease of use Heuristics", which is based on Nielsen's ten convenience heuristics to assess the site. The ten heuristics can be seen below.

1. Person work: Each team member autonomously performed errands multiple times, recorded convenience issues and which heuristic infringement occurred, they rated each issue in terms of severity.
2. Work in group: Afterward, the analysts talked about their autonomous discoveries. A while later they solidified and prioritized convenience issues agreeing to seriousness.

Table 1: Ten Heuristics

No	Usability Heuristics
1	The system should give appropriate feedback within an appropriate time. (Feedback)
2	The system should speak the users' language. (Speak the Users' Language)
3	The user should be free to explore the system without penalty. (Reversible Actions)
4	The same word, phrase, action, or situation should always mean the same thing. (Consistency)
5	Prevention is better than cure. (Error Prevention)
6	Place knowledge in the world. (Recognition Rather Than Recall)
7	Provide accelerators for frequent users, unseen by novice users. (Flexibility and Efficiency of Use)
8	"Less is more". (Aesthetic and Minimalist Design)
9	A good error message helps users recognize, diagnose, and recover from errors. (Good Error Messages)
10	It may be necessary to provide help and documentation. (Help and Documentation)

2.1 User Profiles

2.1. Covid Guidance:

- 2.1.1. Users that want to know guidance about Covid-19.
- 2.1.2. Users that want to know about HEIs further guidance.
- 2.1.3. Users that want to know about reopening of HEIs.
- 2.1.4. Users that look for O&A level admissions.
- 2.1.5. Users that need information about MPhil, MS, defense & final juries.
- 2.1.6. Users that want to know about assignments and exams.
- 2.1.7. Users that need information about online readiness.
- 2.1.8. Users that want to know about govt directives.
- 2.1.9. Users that need information about approved working paper.
- 2.1.10. Users that need guidelines for faculty.
- 2.1.11. Users that need guidelines for university/DAIs.

2.2. Universities Related Guidance

- 2.2.1. Users that need to know about university accreditation section.
- 2.2.2. Users that want to know about recognized universities.
- 2.2.3. Users that need information about illegal campuses/ universities.
- 2.2.4. Users that need universities ranking.
- 2.2.5. Users that need universities statistics.
- 2.2.6. Users that need universities grievance redressal portal.

2.3. HEC Services

- 2.3.1. Users that want to know about HEC services for students.
- 2.3.2. Users that want to know about HEC services for faculty.
- 2.3.3. Users that want to know about HEC services for universities.
- 2.3.4. Users that need information about degree attestations.
- 2.3.5. Users that need information about degree equivalence.

- 2.3.6. Users that want to know disabilities policy.
- 2.3.7. Users that want to know about sexual harassment policy

2.4. Scholarships

- 2.4.1. Users that need to know about national scholarships.
- 2.4.2. Users that want to know about foreign scholarships.
- 2.4.3. Users that need information about learning opportunities abroad.
- 2.4.5. Users that need information about scholarships for foreigners.
- 2.4.6. Users that want to know about international research support

2.5. Quality Assurance

- 2.5.1. Users that want to know about quality assurance agency.
- 2.5.2. Users that want to know about online education readiness.
- 2.5.3. Users that want to read about tenure track statutes of HEC.
- 2.5.4. Users that want to know about criteria of faculty appointment.
- 2.5.5. Users that want to read no objection certificates for M. Phil and Ph. D.
- 2.5.6. Users that want to know about plagiarism and blacklisted faculty.

2.6. R & D

- 2.6.1. Users that want to read about research grants by HEC.
- 2.6.2. Users that want to read recognized journals by HEC.
- 2.6.3. Users that want to browse digital library by HEC.
- 2.6.4. Users that want to know about research for innovation.
- 2.6.5. Users that want to know about scientific panels of HEC.
- 2.6.6. Users that want to browse capacity building initiatives by HEC.

2.7. News and Media

- 2.7.1. Users that want to get information about latest news of HEC.
- 2.7.2. Users that want to know about press releases by HEC.
- 2.7.3. Users that want to know about publications by HEC.
- 2.7.4. Users that want to see images and videos uploaded by organization.
- 2.7.5. Users that want to get informed about events.
- 2.7.6. Users that are looking for latest tenders.

2.8. About Us

- 2.8.1. Users that want to get informed about HEC ordinance.
- 2.8.2. Users that want to get information about HEC offices.
- 2.8.3. Users that want to see commission members of organization.
- 2.8.4. Users that are looking for jobs and want to join HEC.

2.9. I'm a Student

- 2.9.1 Users that need information about digital library.
- 2.9.2. Users that need information about degree attestation system.
- 2.9.3. Users that need information about equivalence degree issuance.
- 2.9.4. Users that need information about Ehsas Undergraduate Scholarship Program.
- 2.9.5. Users that need information about PM's National Laptop Scheme

- 2.9.6. Users that need information about PhD country directory.
- 2.9.7. Users that need information about sports & extra-curricular activities.
- 2.9.8. Users that need information about access to scientific instruments program.
- 2.9.9. Users that need information about admission of foreign students under self-finance scheme.
- 2.9.10. Users that need information about HEC library.
- 2.9.11. Users that need information about Imagine Academy Program.
- 2.9.12. Users that need information about Education Testing Council.
- 2.9.13. Users that need information about Science Talent Farming Scheme for undergraduate program.
- 2.9.14. Users that need information about declamation contest.
- 2.9.15. Users that need information about Prime Minister's Electric Wheelchair Scheme for university students.
- 2.9.16. Users that need information about grievance redressal portal.

2.10. I'm a Faculty Member

- 2.10.1. Users that need information about plagiarism policy.
- 2.10.2. Users that need information about the national professors.
- 2.10.3. Users that want to know about the Modern University Governance Program for university management.
- 2.10.4. Users that need information about thematic research grants program.
- 2.10.5. Users that need information about Continuous Professional Development Program.
- 2.10.6. Users that want to know about Capacity Building for Doctoral Provision in Pakistan.
- 2.10.7. Users that need information about Master Trainers Faculty Development Program.
- 2.10.8. Users that need information about Civil Award.
- 2.10.9. Users that need information about Textbook & Monograph Writing Scheme.
- 2.10.10. Users that want to know about University Industry Technological Support Program.
- 2.10.11. Users that need information about Innovative & Collaborative Research Grant.
- 2.10.12. Users that need information about Grant Challenge Fund (GCF).
- 2.10.13. Users that need information about English Language Teaching Reforms Project.
- 2.10.14. Users that want to know about Problem Based Applied Interdisciplinary Research Programme.
- 2.10.15. Users that need information about Patent Support Program.
- 2.10.16. Users that need information about HEC Outstanding Research Awards.
- 2.10.17. Users that need information about Pakistan Program for Collaborative Research.
- 2.10.18. Users that need information about Pak-Turk Researchers' Mobility Grant.
- 2.10.19. Users that want to know about Faculty Development Program for Pakistani universities.
- 2.10.20. Users that need information about PERIDOT Research Program.
- 2.10.21. Users that need information about Technology Transfer Support Fund (TTSF).
- 2.10.22. Users that need information about HEC Research Travel Grant.
- 2.10.23. Users that need information about National Academy of Higher Education (NAHE).
- 2.10.24. Users that need information about National Awards for best university teachers.

2.11. I Represent a University

- 2.11.1. Users that need information about quality assurance agency.
- 2.11.2. Users that need information about monitoring and evaluation division.
- 2.11.3. Users that need information about tenure track statutes.
- 2.11.4. Users that need information about grant for repair and maintenance of scientific equipment.
- 2.11.5. Users that need information about Social Integration Outreach Program.
- 2.11.6. Users that need information about Institutional Strengthening Grant for upgrading laboratories and libraries.
- 2.11.7. Users that need information about Library Support Grant.
- 2.11.8. Users that need information about Finance Planning.
- 2.11.9. Users that need information about Knowledge Exchange Initiatives.
- 2.11.10. Users that need information about PhD Review Committee.
- 2.11.11. Users that need information about Grant of No Objection Certificate (NOC) to foreign students.
- 2.11.12. Users that need information about business incubation centers in public sector universities.
- 2.11.13. Users that need information about grant to organize seminar, conference and training workshop.
- 2.11.14. Users that need information about Pakistan – United States Science and Technology Cooperation Program.
- 2.11.15. Users that need information about Offices of Research, Innovation and Commercialization.
- 2.11.16. Users that need information about quality and research-based ranking of Pakistani HEIs.
- 2.11.17. Users that need information about curriculum revision.
- 2.11.18. Users that need information about MS MPhil review committee.
- 2.11.19. Users that need information about Pakistan Qualification Register.
- 2.11.20. Users that need information about Pakistan Qualification Frame Work.
- 2.11.21. Users that need information about National Research Program for universities.
- 2.11.22. Users that need information about faculty appointment criteria.
- 2.11.23. Users that need information about institute level evaluation.
- 2.11.24. Users that need information about program level accreditation.
- 2.11.25. Users that need information about accreditation of universities & degree awarding institutes.
- 2.11.26. Users that need information about standardization of semester System in HEIs.
- 2.11.27. Users that need information about tenure track funding to universities.

2.12. Latest Announcements

- 2.12.1. Users that want to be informed about latest announcements.

2.13. Social Media

- 2.13.1. Users that want to visit Facebook page of HEC.
- 2.13.2. Users that want to visit Instagram handler of HEC.
- 2.13.3. Users that want to visit Twitter handler of HEC.
- 2.13.4. Users that want to visit YouTube channel of HEC.

2.14. Login

2.14.1 Users that want to login.

2.14.2. Users that want to enter employee email for access.

2.15. other

2.15.1. Users that want to read terms and conditions of HEC.

2.15.2. Users that want to read privacy policy of HEC.

2.15.3. Users that want to read disclaimer from HEC.

2.2 Extent of Evaluation:

The researchers examined the parts of the User Interface which are open for a common guest of the site and which she/her employments amid her/his visit. The researchers did not check for disappointments within the source code or anything of the just. Like the fundamental work out was to recreate all sorts of guests (see 2.1) and how these sorts utilize the site, attempting to detect as numerous failures/problems as conceivable. The goals of this heuristic evaluation were to assess the convenience of the site employing a set of heuristic and unveil a prioritized list of issues to developers' consideration. The discoveries alongside the recommendations will direct future changes within the software 's interface.

3 Evaluators and Evaluation Environments

Tabular overview of the different evaluators and their evaluation environments.

Table 2: Evaluation Environment.

Evaluator	Wajeh UI Hasnain	Wisha Khurshid	Rehan Ali	Ali Raza Khan	Saif Ullah Khan
Age	22	20	20	20	20
Sex	male	female	male	male	male
Web Browser	Internet Explorer	Google chrome	Google Chrome	Firefox 79.0	MS Edge(dev)
Operating System	Windows 10	Windows 10	Windows 10	Ubuntu 20.04	Ubuntu 18.04 LTS
Internet Connection	10 mbps, zong 4G	Zong 4G	Zong 4G	Zong 4G	Zong 4G
Monitor Size	19"	18"	14"	17"	20"
Monitor Colors	32-bits	32-bits	32-bits	32-bits	32-bits

Monitor Resolution	1366x1200	1366x900	1600x900	1366x768	1366x1200
Browser Resolution	1366x1200	1366x660	1366x768	1366x696	1366x1020
Date of Evaluation	2020-12-07	2020-12-07	2020-12-07	2020-12-07	2020-12-07
Time of Evaluation	16:00 – 19:00	18:50-19:00	13:00-18:00	19:00-24:00	18:22-24:00

4 Positive Impressions

4.1 Colored menu tabs

Menu tabs are differentiated very efficiently with different colors. By recognizing color user can easily see which tab he opened. Such an amazing techniques to differentiate tabs as you can see in Figure 1.



Figure 1: Colored Menu Tabs

4.2 Font Size Variation

User can easily change size of fonts. Old age people can increase size of font. Font size have three categories small, medium, large. In figure 2 you can see this variation of fonts.

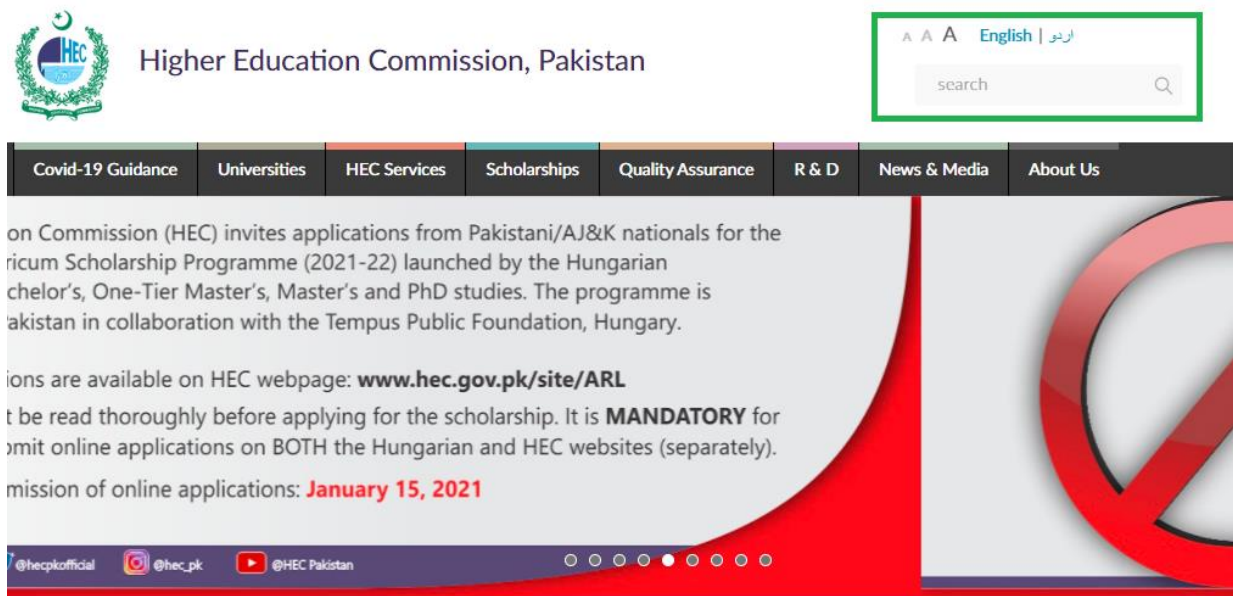


Figure 2: Font Size Variation

4.3 Availability in two different languages

Webpages are made available in two different languages, Urdu and English. User with different language preferences can switch between Urdu and English. User who is comfortable with Urdu language can easily switch to Urdu language and same goes for those users which are comfortable with English. In figure 3 we highlighted this fact.

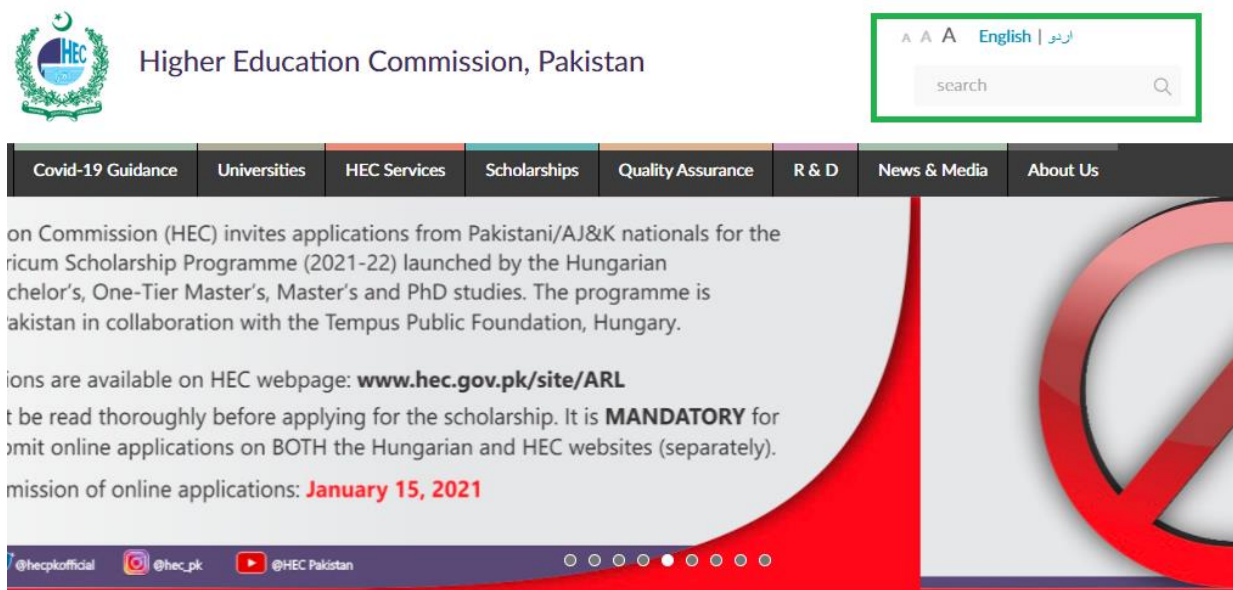


Figure 3: Two languages

4.4 Separation of content

The content of website is divided into 3 categories (Students, Teachers, Representative). This is helpful for novice users as well as for expert users, because a student will not mess up with the content related to teachers and vice versa. This categorizing reduces the time for searching a specific content related to one category. Fact of separation of content is highlighted in figure 4.



Figure 4: Categorical separation

5. Analysis of Main Problems

5.1 Sign in option:

The sign in option is at the bottom right corner and not visible to novice user because he will be looking at the top right corner. Nearly all the websites have sign in option there. This should be on the top right corner as you can see in figure 5.

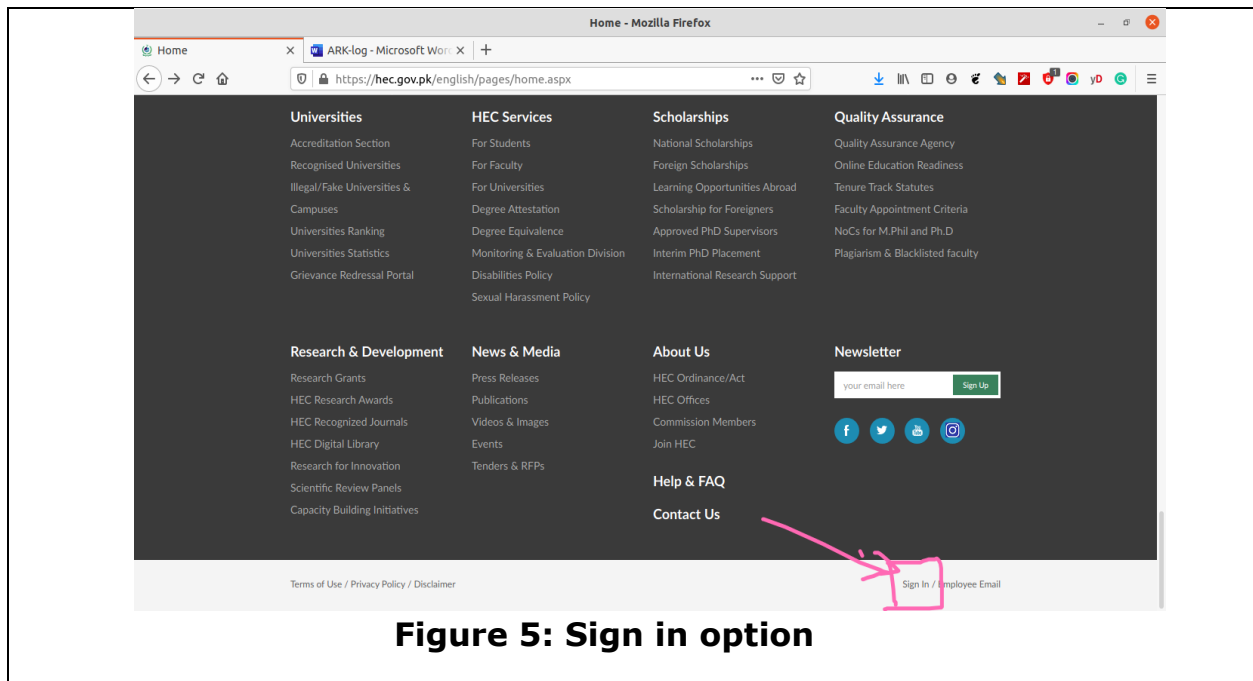


Figure 5: Sign in option

5.2 Ambiguity in error message OR no error message:

During the sign in process, when the user enters incorrect password or username, the website does not show any error message instead it just reloads the page.

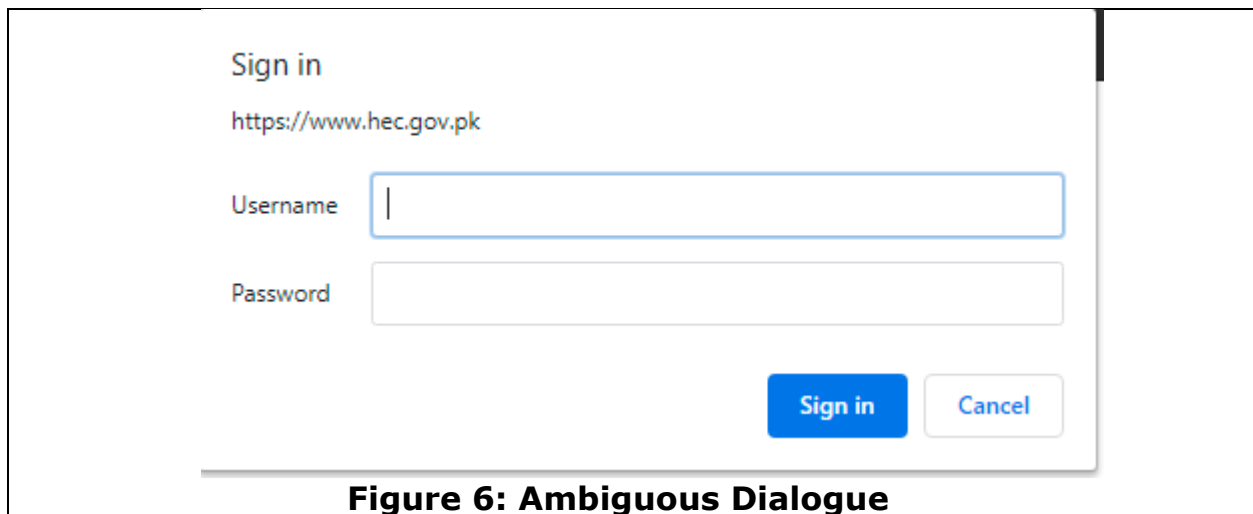


Figure 6: Ambiguous Dialogue

5.3 Irreversible pages:

There is no way of moving back to accreditation section. This is a common feature in most websites. As you can see in figure 7.

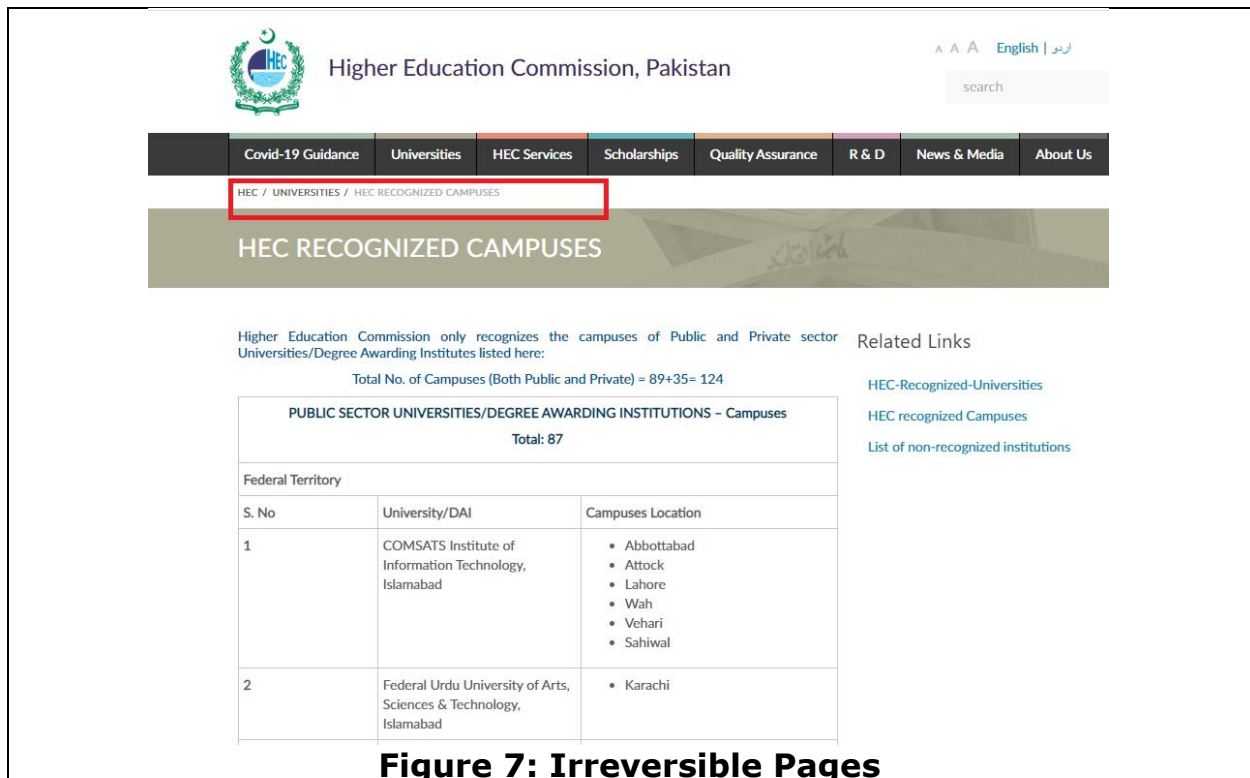


Figure 7: Irreversible Pages

5.4 Outdated information in Tenure Track Funding:

Only from 2004 to 2015 data is available. Nearly all the websites update their data every week or every month. While opening highlighted link in figure 8 outdated information displays.

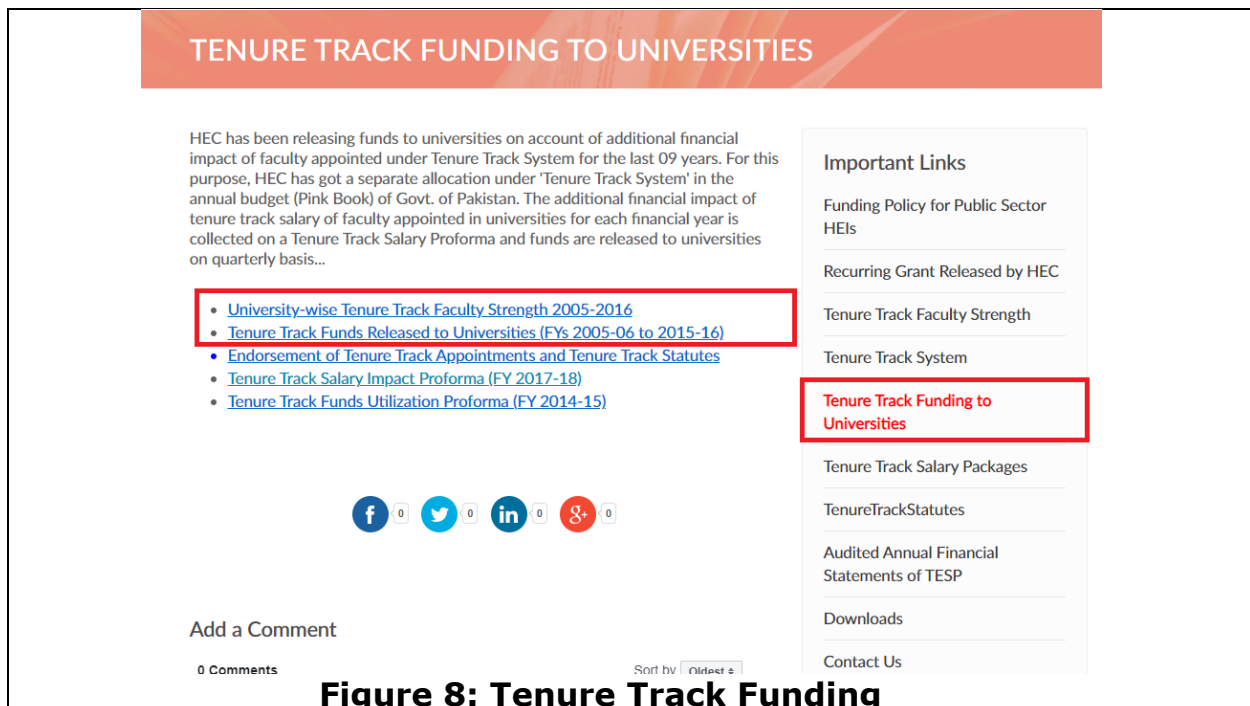


Figure 8: Tenure Track Funding

5.5 Homepage banners permalinks:

The icons on banners must be clickable and allow a user to redirect to that particular website. But these are not working in this way. When we click on any icon on a banner, it redirects to the HEC website itself. Relieved that fact in figure 9.



Figure 9: Banners Permalinks

6. Catalogue of all located problems:

Due to different formats file is not uploaded as expected you can see this sheet [here](#)

No.	Short Title	Description	Screens hot	Heuristics	How Reproducible	Found By					Severity					Avg	Critical
						E 1	E 2	E 3	E 4	E 5	E 1	E 2	E 3	E 4	E 5		
1	Login/ Sign in option	Login or sign in button is usually placed at top the webpages, as it is considered as a standard place to fit login button/option. But in this website login button is at the bottom	Speak the Users' Language	ARK-loginButton.png	Drag to the bottom of homepage- Bottom right corner	-		y	y	y		3	4	4	5	4	*

		right corner, which is confusing for user, as almost all the websites place the login button at the top right corner.																	
2	Irreversible Page	there is no way for moving back to accreditation section.	rehan_prob5_1.png, rehan_prob5_2.png	Reversible Actions	Universities-->Accreditation section-->recognized campuses	-	-	y	-	y		4	3		3	3	3	3	3
3	Home page Banners Permalinks	The icons on banners must be clickable and allow a user to redirect to that particular website. But these are not working in this way. When we click on any icon on a banner, it redirects to the hec website itself.	wisha_posts2.png	Consistency	Homepage ---> Banner ---> Icons	-	y	y	-	y		4	3	3	2	3		*	
4	Outdated information in Tenure Track Funding	Only from 2004 to 2015 funding data is available	rehan_prob25_1.png, rehan_prob25_2.png	Aesthetic and Minimalist Design	HEC services-->for universities -->university wise tenure track funding to universities	-	-	y	-	y		3	3	3	2	2	7	5	*
5	Ambiguity in error	During the sign in operation, when the user	sk_singError.png	Good error	Home--->sign in--->Enter	-			-	y		3	2	3	3	2		*	

	messages	enters incorrect username or password, it doesn't show any error, instead it just reload the TAB and again demands for username and password. This will create problem for users during logging in and he/she will not be able to know if the username is wrong or the password is wrong.		message													75
6	Outdated information in AFS	Only up to academic year 2015 AFS for financial year available.	rehan_prob33.png	Speaks User's Language	HEC services-->for universities-->finance planning-->Imp links-->audited annual financial statement of TESP	-	-	y	-	y			3	1	4		266666667
7	Irreversible grant links	there is no way to revert back to research grants.	rehan_prob37.png	Reversible Actions	R&D-->Research Grants--> open any grant link	-	-	y	y	y			3	3	2		266666667
8	Page Not Found	In Tenure Track Statutes section response of every link is Page Not Found.	rehan_prob32.png	Good Error Messages	HEC services-->for universities-->finance	-	y	y	-				2	3			25

					planning-->Imp links-->tenure track statutes														
9	Obsolete information on Universities statistics page	Universities statistics page show statistical information up to year 2017-18	rehan_prob7.png	Speak User's Language	universities--> universities statistics --> all links	-	-	y	-				3		2			2.5	
10	Outdated HES Performance	Recently updated Performance is for year 2017.	rehan_prob14.png	Speaks User's Language	HEC services-->universities--> universities statistics --> related links --> HES performance 2016-17	-	-	y	-				3		2			2.5	
11	Tenure Track Faculty Strength 2005-18	Record of tenure track faculty strength is available from year 2005 to year 2018.	rehan_prob29_1.png, rehan_prob29_2.png	Aesthetic and Minimalist Design	HEC services--> for universities--> finance planning -->Imp links-->tenure track faculty strength	-	-	y	-				3		2			2.5	
12	Search bar not working	In universities statistics section, search bar is working unexpectedly	rehan_prob11_1.png, rehan_prob11_2.png	Speak User's Language	universities--> universities statistics --> search	-	-	y	y				4		1			2.5	

					bar (enter any universit y name)														
1 3	Turniti n Videos	Unable to play videos although links of Turnitin training videos are available.	rehan_pr ob19_1.p ng, rehan_pr ob19_2.p ng	Good Error Messag es	HEC services-- -> for faculty-- >plagiari sm policy-- >Turniti n training videos	-	y	y	-			1	4					2 . 5	
1 4	Old infor matio n in ranki ng of HEI's	t gives us information up to academic year 2015, it means five years old data.	rehan_pr ob23.png	Aestheti c and Minimal ist Design	HEC services-- ->for universiti es -- >quality and research based ranking of HEI's	-	-	y	y				3	2				2 . 5	
1 5	Code error on QEC in HEI's	When check for further information about QEC error may occurred.	rehan_pr ob31_1.p ng, rehan _prob31_ 2.png	Good Error Messag es	HEC services-- ->for universiti es-- >program level accredita tion-- >quality enhance ment cell in HEI's-- > for further informati on-->all links	-	y	y	-			2	3					2 . 5	
1 6	sign in for contac t us	In National Centers, For contact user must first sign	rehan_pr ob40.png	Feedbac k	R&D-- >Researc h for Innovatio	-	-	y	y				3	2				2 . 5	

21	Out dated information about universities	Very old information is given about recognized universities.	rehan_prob4.png	Aesthetic and Minimalist Design	Universities-->Accreditation section-->recognized campuses	-	y	y	y		3	2	2		3333333333	
22	Unders tandable error	Search Pakistan Research Repository link gives error message in code	rehan_prob12_1.png, rehan_prob12_2.png	Good Error Messages	universities-->universities statistics --> related links -->Pakistan Research Repository	-	-	y	y			3	3	1	2333333333	
23	No term of use	Terms of use of website are not available only one message shown here "Coming Soon".	rehan_prob47.png	Error prevention	footer-->terms of use	-	-	y	y			3	3	1	2333333333	
24	No privacy policy	There is nothing any policy in this website for privacy which may cause user in trouble.	rehan_prob48.png	Speaks User's Language	footer-->privacy policy	-		y	y			3	3	1	2333333333	
25	Blog	It should be removed from the homepage because they	wisha_pos5.png	Feedback	Homepage ---> Blog	-	y		-	y		3	4	1	1	225

[illegible]

					->library collection														
30	Update Research Reports	There is document which contains complete record of research reports published up to year 2011.	rehan_prob17_1.png, rehan_prob17_2.png	Speaks User's Language	HEC services-> for students --> HEC library --> Imp links --> library collection --> Research reports	-	y	y	-			1	3					2	
31	Update Monograph	Monograph updated list document is showing information of Monograph up to year 2011.	rehan_prob18.png	Speaks User's Language	HEC services-> for students --> HEC library --> Imp links --> library collection --> Monograph	-	y	y	y			2	3	1				2	
32	Back to services for student	Here no button or link is available for going back to 2nd page of services.	rehan_prob20.png	Reversible Actions	HEC services-> for student->page 2 -->open any service	-	-	y	-	y			2		2			2	
33	Back to services for faculty	Here no button or link is available for going back to 2nd 3rd page of services.	rehan_prob22.png	Reversible Actions	HEC services--> for faculty-->page 2 or 3 -->open any service	-	y	y	-	y		2	2		2			2	
34	Unders tandable	Code like error occurs when	rehan_prob26_1.png, rehan	Good Error	HEC services-->for	-	-	y	y	y			3	2	1			2	

	error on Tenure Track Funding	click on Tenure Track Funds Utilization Performa (FY 2014-15)	_prob26_2.png	Messag es	universiti es -->universit y wise tenure track funding to universiti es												
35	Recurri ng grant up to 2017-18	Recurring grants are released to universities are recorded up to academic year 2017-18.	rehan_pr ob27_1.png, rehan_pr ob27_2.png	Speaks User's Language	HEC services-->for universiti es --> Imp Links --> recurring grants released by HEC	-	y	y	-			1	3				2
36	Move back to national/foreign schola rship	no way to back national/ foreign scholarships list directly.	rehan_pr ob30_1.png, rehan _prob30_2.png	Reversib le Actions	scholars hips-->nationa l/foreign scholars hips-->open any scholars hip program	-	-	y	y	y			3	1	2		2
37	Useles s information	Applications for Split PhD and Post Doctoral Programme are invited till June,2015	rehan_pr ob34.png	Aestheti c and Minimal ist Design	scholars hips-->foreign scholars hips-->split PhD and post doctoral fellowshi p programme in France--> How to apply	-	-	y	y				2				2
38	How to	When apply for approval by HEC	rehan_pr ob35_1.p	Good Error	scholarshi ps--	-	-	y	y	y			2	2			2

	apply for HEC approved supervisor	as supervisor an error occurred 404 Not Found	ng,rehan_prob35_2.png	Messag es	>approve d PhD supervisor (and how to apply)												
39	R&D stands for	New user can't understand what is meaning of R & D	rehan_prob36.png	Speaks User's Language	Homepage-->R&D tab	-	-	y	-	y			3		1	2	
40	Links of BICS	some links of All Business Incubation Centers section are not available.	rehan_prob38.png	Speaks User's Language	R&D-->Research for Innovation-->Establishment of BICS-->Imp Links-->Quick links to BICS	-	-	y		y			2		2	2	
41	HEC annual reports	HEC annual reports are available till year 2014-15 but now its end of 2020.	rehan_prob43.png	Speaks User's Language	News & Media-->Publications-->HEC Annual Reports	-	-	y	-				3	1		2	
42	Pictures Control	Pictures are shown in slides form changing one by one but user can't see gallery of images. User can't see image by his own choice.	rehan_prob44.png	Speaks User's Language	News & Media-->Videos and Images-->Pictures	-	-	y	-				2			2	
43	No disclaimer	Disclaimer of website is also not available which is also most important part of website.	rehan_prob49.png	Speaks User's Language	footer-->disclaimer	-		y	-				3	1		2	

44	Home page Banners Design	The banners on the homepage have a lot of text on them. There must be some graphics that could make it user-friendly.	wisha_pos1.png	Aesthetic and Minimalist Design	Homepage ---> Banner	-	y		-			1	3			2
45	Contact Us Location	Contact Us option must be in the header menu of the website but on this website, this page's link is in the footer.	wisha_pos6.png	Flexibility and Efficiency of Use	Homepage ---> Footer ---> Contact Us	-	y		y			2	2	2		2
46	Contact Us Page UI	There must be a contact form along with contact information. And the contact us page must have only contact information like contact number, email, social media pages links, etc. But on the contact page of this website, there is a lot more information. So, the user can get confused about it.	wisha_pos7.png	Aesthetic and Minimalist Design	Contact Us	-	y	y	y			1	3	2		2
47	Commission members images	There is a picture of only one commission member. They should either add images of all members or remove the image option for all members. The dummy image in place of member's	wisha_pos9.png	Feedback	Homepage ---> About ---> Commission Members	-	y		-			2	2			2

		images is not looking good.																	
48	Publications	The publications are not updated after September 2020. They must be up to date.	wisha_posts10.png	Help and Documentation	Homepage ---> News and Media ---> Publications	y	y		y			1	3					2	
49	Duplicate Information	Different tabs and information is placed twice. For instance, Services for students are available twice, once in the HEC tab in navigation bar and then again on the homepage. This leads to redundant and duplicate information.	ARK-duplicate INFO.png	Aesthetic and Minimalist Design	Hover over HEC Services in navigation bar and drag the homepage a little below	-	y		y	y		2	3	1	2			2	
50	Same Navigation Bar and Body	Navigation bar and a section in the body of the main page contains same webpages redirection. Same data and information are made redundant and duplicate more than once with no little change. The only difference between the duplicates is that one is in the form of navigation bar and the other is placed as bullets in a section of body of	ARK-sameRef.png	Aesthetic and Minimalist Design	Hover over any tab in navigation bar and drag the homepage-next to HEC blog	-	y	y	y			1	3	2				2	

		main/homepage .																	
51	About Us tab is made available as PDF file	If users want to read about us of HEC, he is asked to select among few options and then it is displayed as a PDF document. But mostly about us page is in the form HTML page or say webpage.	ARK-aboutUsPDF.png	Speak the Users' Language	Hover over About Us in navbar-click on any option from the dropdown	-			y					1	3			2	
52	Empty Image Placeholders	Some image placeholders are left empty. Some of the webpages containing some images to be displayed are left empty which is less informative for the user. If those pictures were available it would be more informative.	ARK-noPicture.png	Consistency	Universities-Universities Statistics	-		y	y	y				2			2	2	
53	Obsolete information on main page	on the main page there is heading name blog but there is no content for blog in the site and its not being updted for many days	wajehn3.jpg	Feedback	Bottom of main page	y								2	2			2	
54	Old statistics about enrollment at universities	In enrollment at universities, statistics are shown from year 2001-02 to 2014-15.	rehan_prob8.png	Speak User's Language	universities--> universities statistics --> enrollment at Pakistani universities	-	-	y	y	y				2	1			166666667	

55	Un update d PhD produc ed by Pakista ni univers ities	In PhD produced by Pakistani universities; statistics are shown up to year 2014-15.	rehan_pr ob10.png	Speak User's Languag e	universiti es--> universiti es statistics --> PhD produced by Pakistani	-	y	y	-			2	2	1		1 .66666667
56	Tenur e Track salary packa ge	Only up to 2015 tenure salary package data is available.	rehan_pr ob28.png	Speaks User's Languag e	HEC services- -> for universit ies--> finance planning -->Imp links-- >tenure track salary package s	-	-	y	y	y			3	1	1	1 .66666667
57	About Us tab in naviga tion bar	About us nav in navigation bar contains different section like HEC offices and HEC ordinance can be put in the same webpage and displayed as a single webpage in navigation bar. User than just have to go to about us webpage and read 'About Us' on a single click	ARK- aboutUs. png	Aestheti c and Minimal ist Design	Hover over About Us in navigati on bar	-			y	y			2	2	1	1 .66666667
58	Retund ancy in	The tabs/links in navigation bar are exactly	sk_retun dancy.pn g	Aestheti c and Minimal	Home page	-	y		y	y		1	2		2	1 .66

	tabs/li nks	repeated in the footer section.		ist Design														6 6 6 6 6 6 7 7
5 9	Gener al Behavi our	It is too hard to find the stuff you are looking for on the site. The website somehow looks messy and complicated for a general user.	wajehn1. jpg	The interfac e must be user freindly	Main page	y	y		y			1	2	2				1 . 6 6 6 6 6 6 6 7
6 0	Old statist ics about facult y of Pakist ani univer sities	In full time faculty of Pakistani universities, statistics are shown up to year 2014-15.	rehan_pr ob9.png	Speak User's Languag e	universiti es--> universiti es statistics --> full time faculty of Pakistani	-	y	y	y	y		2	2	1	1			1 . 5
6 1	Upcom ing Events	There must be a slider in the upcoming events portion rather than the 'see all' button. It could allow the user to do just one click and move to another event. In the case of the 'see all' button, it takes a lot of load time to move to another page.	wisha_po s4.png	Aestheti c and Minimal ist Design	Homepag e ---> Upcomin g Events - --> see all button	-	y	y	-			1	2					1 . 5
6 2	No proper Sign Page of popup	There is no specified or proper webpage for login. A popup which uses browser popups is used	ARK- popup.pn g	Speak the Users' Languag e/ Aestheti c and	Drag the homepag e below- Bottom right corner- click on	-			y				2	1				1 . 5

		to take login inputs. Mostly almost all the websites contain a proper signin/login webpage to login for user.		Minimalist Design	login button														
63	Bad design	In the sholarship page, the useful link must be about some scholarships but these are links to the main page.	sk_links.png	Aesthetic and Minimalist Design	Home --> Scholarships	-		y	-	y			2		1			1.5	
64	Current status :	Obsolete information in current status section it needs to be updated.	rehan_prob21.png	Speaks User's Language	HEC services--> for faculty--> capacity building for doctoral provision in Pakistan --> current status	-	-	y	y	y			2	1	1			1.33333333333333	
65	Small heading on header	The header have a name written of the site but its not looking proper and upto the mark.	wajehn2.jpg	Text must be written in some bold font	Header of main page	y							2	1	1			1.33333333333333	
66	Confusion about campus and sub campuses	Heading of sub campuses locations is campus location which doesn't match user mental model.	rehan_prob3.png	Speak User's Language	Universities-->Accreditation section-->recognized universit	-	y	y	y				1	1	1			1	

Table 3: Evaluator's log files

Name	Log File
Wajeh-ul-Hasnain	log-wajeh.txt
Wisha Khurshid	log-wisha.txt
Muhammad Rehan Ali	log-rehan.txt
Ali Raza Khan	log-ARK.txt
Saifullah Khan	log-SK.txt

Appendix C: Spreadsheet

Raw skeleton spreadsheet for the evaluation manager to merge the individual lists [HE List.xlsx](#)

Appendix A: Heuristics

A01 Feedback

The system should give appropriate feedback within an appropriate time.

For example, for a delay of up to about 10 seconds display a busy cursor, for a delay of more than 10 seconds display a progress bar.

A02 Speak the Users' Language

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system oriented terms.

Follow real-world conventions. Make information appear in a natural and logical order. Match the users' mental model. Beware of misleading metaphors.

A03 Reversible Actions

The user should be free to explore the system without penalty. Users sometimes choose functions by mistake and need a clear way to back up. Support undo and redo.

A04 Consistency

The same word, phrase, action, or situation should always mean the same thing. Follow platform conventions and standards. If there is a standard way of doing something, do it that way unless there is a very good reason to do it differently.

A05 Error Prevention

Prevention is better than cure. Careful design can prevent a problem from occurring in the first place.

For example: selecting a file from a menu rather than typing in a file name, asking for confirmation before dangerous actions, avoiding modes (or making it extremely clear which mode the user is in), avoiding commands with similar names.

A06 Recognition Rather Than Recall

Place knowledge in the world. Make objects, actions, and options visible.

For example, provide examples, default values, and easily retrievable instructions. The user should not have to remember information from one part of the dialogue to another.

A07 Flexibility and Efficiency of Use

Provide accelerators for frequent users, unseen by novice users. Allow users to tailor frequent actions.

For example: abbreviations, command keys, type-ahead, the ability to edit and reissue previous commands, a menu of most recently used files, macros.

A08 Aesthetic and Minimalist Design

"Less is more".

Dialogues should not contain information which is irrelevant or rarely needed. Every piece of unnecessary decoration in a dialogue competes with the relevant units of information for the attention of the user.

A09 Good Error Messages

A good error message helps users recognize, diagnose, and recover from errors.

Good error messages should be: in plain language (no codes), precise (precisely indicate the problem), defensive (never blame the user), constructive (suggest a solution), and multi-level (include a link to further information or the help system).

A10 Help and Documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation.

Good help and documentation should be: easy to navigate (table of contents, index, and search facility), task-oriented (focused on the user's tasks), recipe-like (list sequences of concrete steps), and example rich (make liberal use of examples).

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Appendix B: Evaluator' s Log Files

1. Log File by Rehan Ali

Evaluator: M. Rehan Ali

Age: 20

Sex: male

Web Browser: Google chrome

Operating System and Version: Windows 10

Internet Connection Type: Zong 4G

Internet Connection Download Speed: 6 mbps

Monitor Size: 14"

Monitor Colors: 32-Bit

Monitor Resolution: 1600 x 900

Browser Resolution: 1366 x 768

Date of Evaluation: 07 December 2020

Time of Evaluation: 13:00 - 18:00

Positive Impressions

Colored menu tabs

Menu tabs are differentiated very efficiently with different colors. By recognizing color user can easily see which tab he opened.

Screenshot: rehan_pos1.png

Font Size Variation

User can easily change size of fonts. Old age people can increase size of font. Font size have three categories small, medium, large.

Screenshot: rehan_pos2.png

Loading Time

Whole website is loaded in reasonable amount of time. Loading time cause not any issue.

Problems

HEIs Means?

In Covid-19 guidance new user/student couldn't understand what HEI's stands for. First Time it may irritate new user.

Heuristic: Speak User's Language

How reproducible: Covid-19 Guidance-->options

Screenshot: rehan_prob1.png

Unable to going back to universities list

From universities list clicked on specific university to see further information but unable to going back to university list after getting information of that university.

Heuristic: Reversible Actions

How reproducible: Universities-->Accreditation section-->recognized universities --> any university

Screenshot: rehan_prob2.png

Confusion about campus and sub campuses

Heading of sub campuses locations is campus location which doesn't match user mental model. It causes confusion.

Heuristic: Speak User's Language

How reproducible: Universities-->Accreditation section-->recognized universities --> campus location

Screenshot: rehan_prob3.png

Out dated information about universities

Very old information is given about recognized universities. Some new universities are recognized by HEC but not updated here. E.g. University of Mianwali, Namal institute.

Heuristic: Aesthetic and Minimalist Design, Speak User's Language

How reproducible: Universities-->Accreditation section-->recognized campuses

Screenshot: rehan_prob4.png

Irreversible Page

From accreditation section of universities when move to recognized campuses there is no way for moving back to accreditation section.

How reproducible: Universities-->Accreditation section-->recognized campuses

Screenshots: rehan_prob5_1.png, rehan_prob5_2.png

Universities ranking coming soon

When user wanted to see universities ranking by clicking on Tab, page showed coming soon.

Although this page can show old ranking till new updates.

Heuristic: Speak User's Language

How reproducible: Universities-->Universities Ranking

Screenshot: rehan_prob6.png

Obsolete information on Universities statistics page

Universities statistics page show statistical information up to year 2017-18 but now academic year 2019-20 ended.

Heuristic: Speak User's Language

How reproducible: universities--> universities statistics --> all links

Screenshot: rehan_prob7.png

Old statistics about enrollment at universities

In enrollment at universities, statistics are shown from year 2001-02 to 2014-15. It doesn't match user requirements.

Heuristic: Speak User's Language

How reproducible: universities--> universities statistics --> enrollment at Pakistani universities

Screenshot: rehan_prob8.png

Old statistics about faculty of Pakistani universities

In full time faculty of Pakistani universities, statistics are shown up to year 2014-15. It doesn't match user requirements.

Heuristic: Speak User's Language

How reproducible: universities--> universities statistics --> full time faculty of Pakistani universities

Screenshot: rehan_prob9.png

Un updated PhD produced by Pakistani universities

In PhD produced by Pakistani universities; statistics are shown up to year 2014-15. It doesn't match user requirements.

Heuristic: Speak User's Language

How reproducible: universities--> universities statistics --> PhD produced by Pakistani universities

Screenshot: rehan_prob10.png

Search bar not working

In universities statistics section, search bar is working unexpectedly it doesn't match user mental model.

Heuristic: Speak User's Language, Good Error Messages

How reproducible: universities--> universities statistics --> search bar (enter any university name)

Screenshots: rehan_prob11_1.png, rehan_prob11_2.png

Understandable error

Search Pakistan Research Repository link gives error message in code which is in tolerable.

Heuristic: Good Error Messages

How reproducible: universities--> universities statistics --> related links --> Pakistan Research Repository

Screenshots: rehan_prob12_1.png, rehan_prob12_2.png

HEI's Ranking

Ranking of HEIs are available up to academic year 2015. But know its 2021 so given information is useless for user who want to see ranking of universities.

Heuristic: Aesthetic and Minimalist Design

How reproducible: HEC services-->universities--> universities statistics --> related links --> Ranking of Pakistan HEIs.

Screenshot: rehan_prob13.png

Outdated HES Performa

Recently updated Performa is for year 2017. This information does not fulfill needs of users.

Heuristic: Speaks User's Language

How reproducible: HEC services-->universities--> universities statistics --> related links --> HES performa 2016-17

Screenshot: rehan_prob14.png

Links of HEC library not working

In HEC library section, first two links are not working.

Heuristic: Aesthetic and Minimalist Design

How reproducible: HEC services --> for students --> HEC library

Screenshot: rehan_prob15.png

Can't open PhD theses link

In library collection section of HEC library link for PhD theses could not open.

Heuristic: Aesthetic and Minimalist Design

How reproducible: HEC services --> for students --> HEC library--> Imp links-->library collection

Screenshot: rehan_prob16.png

Need to update research reports record

There is document which contains complete record of research reports published up to year 2011. This file is very outdated it needs to be updated.

Heuristic: Speaks User's Language

How reproducible: HEC services--> for students--> HEC library --> Imp links --> library collection --> Research reports

Screenshot: rehan_prob17_1.png, rehan_prob17_2.png

Old information about Monograph

Monograph updated list document is showing information of Monograph up to year 2011. It should be updated.

Heuristic: Speaks User's Language

How reproducible: HEC services--> for students--> HEC library --> Imp links --> library collection --> Monograph

Screenshot: rehan_prob18.png

Turnitin Videos

Unable to play videos although links of Turnitin training videos are available.

Heuristic: Good Error Messages

How reproducible: HEC services--> for faculty--> plagiarism policy--> Turnitin training videos

Screenshots: rehan_prob19_1.png, rehan_prob19_2.png

Back to services for student

From 2nd page of services for student explore any service. Here no button or link is available for going back to 2nd page of services.

Heuristic: Reversible Actions

How reproducible: HEC services--> for student--> page 2 --> open any service

Screenshot: rehan_prob20.png

Current status:

Obsolete information in current status section it needs to be updated.

Heuristic: Speak User's Language, Aesthetic and Minimalist Design

How reproducible: HEC services--> for faculty--> capacity building for doctoral provision in Pakistan--> current status

Screenshot: rehan_prob21.png

Back to services for faculty

From 2nd page/ 3rd page of services for faculty explore any service. Here no button or link is available for going back to 2nd 3rd page of services.

Heuristic: Reversible Actions

How reproducible: HEC services--> for faculty--> page 2 or 3 --> open any service

Screenshot: rehan_prob22.png

Old information in ranking of HEI's

Very old information in quality and research based ranking of HEI's. It gives us information up to academic year 2015, it means five years old data.

Heuristic: Aesthetic and Minimalist Design

How reproducible: HEC services-->for universities -->quality and research based ranking of HEI's

Screenshot: rehan_prob23.png

Back to services for universities

From 2nd page/ 3rd page of services for universities explore any service. Here no button or link is available for going back to 2nd 3rd page of services.

Heuristic: Reversible Actions

How reproducible: HEC services--> for universities-->page 2 or 3 -->open any service

Screenshot: rehan_prob24.png

Outdated information in Tenure Track Funding

Outdated information in tenure track funding to universities. Here tenure track faculty strength of academic year 2016 is available. Only from 2004 to 2015 funding data is available.

Heuristic: Aesthetic and Minimalist Design, Speak User's language

How reproducible: HEC services-->for universities -->university wise tenure track funding to universities

--> tenure track faculty strength and (tenure track funds released to universities)

Screenshots: rehan_prob25_1.png, rehan_prob25_2.png, rehan_prob25_3.png

Understandable error on Tenure Track Funding page

Code like error occurs when click on Tenure Track Funds Utilization Performa (FY 2014-15)

Heuristic: Good Error Messages

How reproducible: HEC services-->for universities -->tenure track funding to universities-->tenure track funds utilization Performa (FY 2014-15) and (tenure track salary impact Performa (FY 2017-18)

Screenshots: rehan_prob26_1.png, rehan_prob26_2.png

Recurring grant up to 2017-18

Recurring grants are released to universities are recorded up to academic year 2017-18.

Heuristic: Speaks User's Language

How reproducible: HEC services-->for universities --> Imp Links --> recurring grants released by HEC

Screenshots: rehan_prob27_1.png, rehan_prob27_2.png

Tenure Track salary package

Only up to 2015 tenure salary package data is available. One more issue here is vice chancellor salary is unclickable.

Heuristic: Speak User's Language

How reproducible: HEC services--> for universities--> finance planning-->Imp links-->tenure track salary packages

Screenshot: rehan_prob28.png

Tenure Track Faculty Strength 2005-18

Record of tenure track faculty strength is available from year 2005 to year 2018. It needs to be updated.

Heuristic: Aesthetic and Minimalist Design

How reproducible: HEC services--> for universities--> finance planning-->Imp links-->tenure track faculty strength

Screenshot: rehan_prob29_1.png, rehan_prob29_2.png

Move back to national/foreign scholarship

From scholarships list either national or foreign scholarships explore any scholarship program but no way to back national/ foreign scholarships list directly.

Heuristic: Reversible Actions

How reproducible: scholarships-->national/foreign scholarships-->open any scholarship program

Screenshots: rehan_prob30_1.png, rehan_prob30_2.png, rehan_prob30_3.png

Code error on QEC in HEI's

When check for further information about QEC error may occurred. It shows unreadable message.

Heuristic: Good Error Messages

How reproducible: HEC services-->for universities-->program level accreditation-->quality enhancement cell in HEI's--> for further information-->all links

Screenshots: rehan_prob31_1.png, rehan_prob31_2.png

Page Not Found

In Tenure Track Statutes section response of every link is Page Not Found.

Heuristic: Good Error Messages

How reproducible: HEC services-->for universities-->finance planning-->Imp links-->tenure track statutes

Screenshot: rehan_prob32.png

Outdated information in AFS

Only up to academic year 2015 AFS for financial year available.

Heuristic: Speak User's language

How reproducible: HEC services-->for universities-->finance planning-->Imp links-->audited annual financial statement of TESP

Screenshot: rehan_prob33.png

Useless information

Applications for Split PhD and Post Doctoral Programme are invited till June,2015 but now it's 2020.

Heuristic: Aesthetic and Minimalist Design

How reproducible: scholarships-->foreign scholarships-->split PhD and post doctoral fellowship programme in France--> How to apply

Screenshot: rehan_prob34.png

How to apply for HEC approved supervisor

When apply for approval by HEC as supervisor an error occurred 404 Not Found.

Heuristic: Good Error Messages

How reproducible: scholarships-->approved PhD supervisor (and how to apply)

Screenshots: rehan_prob35_1.png, rehan_prob35_2.png

R & D stands for?

New user can't understand what is meaning of R & D. For first time it should be shown in full form.

Heuristic: Speak User's Language

How reproducible: Homepage-->R&D tab

Screenshot: rehan_prob36.png

Irreversible grant links

In R & D page after opening any research grants link there is no way to revert back to research grants.

Heuristic: Reversible Actions

How reproducible: R&D-->Research Grants --> open any grant link

Screenshot: rehan_prob37.png

Links of BICS

In quick links to BICS, some links of All Business Incubation Centers section are not available.

Heuristic: Speak User's Language

How reproducible: R&D-->Research for Innovation-->Establishment of BICS-->Imp Links-->Quick links to BICS

Screenshot: rehan_prob38.png

BIC at NUST

In Quick links to BICS, when open BIC at NUST, Islamabad it causes 404 Not Found error.

Heuristic: Good Error Messages

How reproducible: R&D-->Research for Innovation-->Establishment of BICS-->Imp Links-->Quick links to BICS-->BIC at NUST, Islamabad

Screenshots: rehan_prob39_1.png, rehan_prob39_2.png

National center link not available

Link of National Center of GIS and Space Application is not here. It doesn't match with user's expectation.

Heuristic: Speak User's Language

How reproducible: R&D-->Research for Innovation-->National centers-->centers established through PSDP-->National Center of GIS and Space Applications

Screenshots: rehan_prob40_1.png, rehan_prob40_2.png

Sign in for Contact Us

In National Centers, For contact user must first sign in which is totally irrelevant and against convention.

Heuristic: Aesthetic and Minimalist Design

How reproducible: R&D-->Research for Innovation-->National centers-->centers established through Act of Federal Parliament-->any link below-->Imp Links-->Contact Us

Screenshots: rehan_prob41_1.png, rehan_prob41_2.png, rehan_prob41_3.png

401 unauthorized error

If click on cancel in sign in dialogue box it gives code error which is 401 unauthorized error.

Heuristic: Good Error Messages

How reproducible: R&D-->Research for Innovation-->National centers-->centers established through Act of Federal Parliament-->any link below-->Imp Links-->Contact Us-->cancel sign in box

Screenshots: rehan_prob42_1.png, rehan_prob42_2.png

HEC Annual Reports

HEC annual reports are available till year 2014-15 but now its end of 2020. It needs to be updated.

Heuristic: Speak User's Language

How reproducible: News & Media-->Publications-->HEC Annual Reports

Screenshot: rehan_prob43.png

Pictures control

Pictures are shown in slides form changing one by one but user can't see gallery of images. User can't see image by his own choice.

Heuristic: Speak User's Language

How reproducible: News & Media-->Videos and Images-->Pictures

Screenshot: rehan_prob44.png

HEC Blog

When go to blog link for latest updates only one message shown here "coming soon".

Heuristic: Aesthetic and Minimalist Design

How reproducible: on most pages where social media bar is present in last there is reference to Blog.

Screenshots: rehan_prob45_1.png, rehan_prob45_2.png, rehan_prob45_3.png

Invisible color

Light grey color is user for entering email in sign up box which only can be visible with full eyesight.

Heuristic: Speak User's Language

How reproducible: Bottom of pages -->Newsletter-->signup box

Screenshot: rehan_prob46.png

No terms of use

Terms of use of website are not available only one message shown here "Coming Soon".

Heuristic: Error Prevention

How reproducible: footer-->terms of use

Screenshot: rehan_prob47.png

No privacy policy

There is nothing any policy in this website for privacy which may cause user in trouble. But privacy policy is one of most important documents for any website.

Heuristic: Speak user's Language

How reproducible: footer-->privacy policy

Screenshot: rehan_prob48.png

No Disclaimer

Disclaimer of website is also not available which is also most important part of website.

Heuristic: Speak User's Language

How reproducible: footer-->disclaimer

Screenshot: rehan_prob49.png

Location of sign in button/link

User face difficulty to find sign in button which is in footer. It may be place in correct place so that user can use it easily.

Heuristic: Speak User's Language

How reproducible: footer-->sign in

Screenshot: rehan_prob50.png

2 Log File by Wajeh ul Hasnain

Evaluator: Syed Wajeh ul hasnain

Age: 21

Sex: male

Web Browser and Version: Google chrome

Operating System and Version: Windows 10

Internet Connection Type: Cello, Jazz 4g

Internet Connection Download Speed: 8 mbps

Monitor Size: 16,3"

Monitor Colors: 64-Bit

Monitor Resolution: 1280 x 800

Browser Resolution: 1280 x 800

Date of Evaluation: 30 Jan 202

Time of Evaluation: 19:00 - 22:00

Positive Impressions

o Loading Time

The Loading Time of website is not a problem. All Pages are loaded in a reasonable amount of time.

Screen shot: Wajehp1.jpg

o Covid 19 sop details

Its good to see covid 19 sop details on main page as a slider.

Screen shot: Wajehp2.jpg

o Language options

Its very good to see language option on website as it will be helpfull for many users whose native language is urdu and are unable to speak english well

Screen shot: Wajehp3.jpg

oAnnouncement section

The announcement section on main screen is very useful as itwill help general users to see all the details from the first page.

Screen shot: Wajehp4.jpg

Problems

o General Behaviour

Description:

It is too hard to find the stuff you are looking for on the site. The website somehow looks messy and complicated for a general user.

Heuristic:

The interface must be user freindly

Location:

Main page (Home page)

screenshot: Wajehn1.jpg

Small heading on header

The header have a name written of the site but its not looking proper and upto the mark.
The font and font size is not visually appealing

Heuristic: Text must be written in some bold font.

Screenshot: Wajehn2.jpg

Location: Header of main page

o Obsolete information on main page

on the main page there is heading name blog but there is no content for blog in the site and its not being updted for many days.

Location: Bottom of main page

Heuristic: Feedback

Screenshot: wajehn3.jpg

o Join Hec page not loading

The join hec page is unable to load properly and the apge have no content to display

Location: Home page-> About -> Join Hec

Heuristic: Error meassage m ust be visible

Screenshot: wajehn4.jpg

o Publications not updating continuesly

There publication section hjas not been updated since september 2020

Location: Home page -> News and media -> Publications

Heuristic: Help and documentation

Screenshot: wajehn5.jpg

3 Log File by Wisha Khurshid

Evaluator: Wisha Khurshid

Age: 21

Sex: female

Web Browser and Version: Google Chrome Version 88.0.4324.104

Operating System and Version: Windows 10 Pro

Internet Connection Type: Zong 4g

Internet Connection Download Speed: 1 Mbps

Monitor Size: 14 inches

Monitor Colours: 64-Bit

Monitor Resolution: 1,600 x 900

Browser Resolution: 1280 x 720

Date of Evaluation: 31 Jan 2021

Time of Evaluation: 2:00PM - 4:00PM

Positive Impressions

o Search bar

It was very good to see the search bar on the top of the homepage. As this website covers different educational aspects so a user can easily search required information through the search bar.

Screenshot: wisha_pos1.png

o Language Options

As most people are not good at English, so this website also allows users to use it in Urdu.

Screenshot: wisha_pos2.png

o Header buttons and subsection:

All the required details were present in the header section and all subsections are properly listed.

Screenshot: wisha_pos3.png

o News and Media:

There is a separate option for news and media in the header. It would be easy for the user to go through the latest updates.

Screenshot: wisha_pos4.png

o Separate Categories:

There are separate categories for students, faculty members, and university. This option makes it user friendly. A particular user can get help through the site easily.

Screenshot: wisha_pos5.png

Problems

o Homepage Banners Design

Description

The banners on the homepage have a lot of text on them. There must be some graphics that could make it user-friendly.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible?: Homepage ---> Banner

Screenshot: wisha_prob1.png

o Homepage Banners Permalinks

Description

The icons on banners must be clickable and allow a user to redirect to that particular website. But these are not working in this way. When we click on any icon on a banner, it redirects to the hec website itself.

Heuristic: Consistency

Location - How reproducible?:Homepage ---> Banner ---> Icons

Screenshot: wisha_prob2

o Homepage Banners Content

Description

The banners must have the latest scholarship ads but these are also not up-to-date.

Heuristic: Help and Documentation

Location - How reproducible?: Homepage ---> Banner

Screenshot: wisha_prob3

o Upcoming Events

Description

There must be a slider in the upcoming events portion rather than the 'see all' button. It could allow the user to do just one click and move to another event. In the case of the 'see all' button, it takes a lot of load time to move to another page.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible? Homepage ---> Upcoming Events ---> see all button

Screenshot: wisha_prob4

o Blog

Description

It should be removed from the homepage because they don't have any content for the blog. They are showing coming soon in the blog and it looks strange.

Heuristic: Feedback

Location - How reproducible? Homepage ---> Blog

Screenshot: wisha_prob5

o Contact Us Location

Description

Contact Us option must be in the header menu of the website but on this website, this page's link is in the footer.

Heuristic: Flexibility and Efficiency of Use

Location - How reproducible? Homepage ---> Footer ---> Contact Us

Screenshot: wisha_prob6

o Contact Us Page UI

Description

There must be a contact form along with contact information. And the contact us page must have only contact information like contact number, email, social media pages links, etc. But on the contact page of this website, there is a lot more information. So, the user can get confused about it.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible? Contact Us

Screenshot: wisha_prob7

o Join Hec

Description

This page is not loading. There is some error on this page and it does not show any message.

Heuristic: Good Error Messages

Location - How reproducible? Homepage ---> About ---> Join HEC

Screenshot: wisha_prob8

o Commission members images

Description

There is a picture of only one commission member. They should either add images of all members or remove the image option for all members. The dummy image in place of member's images is not looking good.

Heuristic: Feedback

Location - How reproducible? Homepage ---> About ---> Commission Members

Screenshot: wisha_prob9

o Publications

Description

The publications are not updated after September 2020. They must be up to date.

Heuristic: Help and Documentation

Location - How reproducible? Homepage ---> News and Media ---> Publications

Screenshot: wisha_prob10

4 Log File by Ali Raza Khan

Evaluator: Ali Raza Khan

Age: 18 Years

Sex: Male

Web Browser and Version: Firefox 79.0

Operating System and Version: Ubuntu 20.04

Internet Connection Type: 4G (Zong CMPak)

Internet Connection Download Speed: 7 Mbps

Monitor Size: 17"

Monitor Colours: RGB

Monitor Resolution: 1366x768

Browser Resolution: 1349x768

Date of Evaluation: Jan 31, 2021

Time of Evaluation: 12:39

Positive Impressions

o

Short Title: Resize Font

Description:

User can resize font on web. Font size is divided into 3 different defined sizes. Three buttons are provided to resize font at the top right corner of the webpage. Three A's are placed as buttons representing size of text on the webpage.

Screenshot: uuu-fontSize.png

o

Short Title: Availability in two different languages

Description:

Webpages are made available in two different languages, Urdu and English. User with different language preferences can switch between Urdu and English. User who is comfortable with Urdu language can easily switch to Urdu language and same goes for those users which are comfortable with English.

Screenshot: uuu-language.png

o

Short Title: Important Announcements are shown in slider

Description:

Important announcements which have to be displayed to the user are displayed on the slider on homepage of the website. Announcements related to scholarships policies are displayed here in slider. It contains more than one announcement posters. Mostly it(slider) displays HEC' policies regarding higher education and higher education institutes.

Screenshot: uuu-announcements.png

o

Short Title: Search for anything on the Website

Description:

User can search for anything he wants to search for. For instance, user can search for any kind of scholarships. We have done an example of search as you can see in the screenshot. Users can search for a keyword and results will be displayed to the user even if he enters a wrong keyword than also search engine of the page will show results close the searched keyword.

Screenshot: uuu-search.png

O

Problems

o Short Title: Login/Sign in option

Description:

Login or sign in button is usually placed at top the webpages, as it is considered as a standard place to fit login button/option. But in this website login button is at the bottom right corner,

which is confusing for user, as almost all the websites place the login button at the top right corner.

Heuristic: Speak the Users' Language

Location - How reproducible?: Drag to the bottom of homepage-Bottom right corner

Screenshot: uuu-loginButton.png

o

o Short Title: About Us tab in navigation bar

Description:

About us nav in navigation bar contains different section like HEC offices and HEC ordinance can be put in the same webpage and displayed as a single webpage in navigation bar. User than just have to go to about us webpage and read 'About Us' on a single click.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible?: Hover over About Us in navigation bar

Screenshot: uuu-aboutUs.png

O

o Short Title: Duplicate Information

Description:

Different tabs and information is placed twice. For instance, Services for students are available twice, once in the HEC tab in navigation bar and than again on the homepage. This leads to redundant and duplicate information.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible? Hover over HEC Services in navigation bar and drag the homepage a little below

Screenshot: uuu-duplicateINFO.png

O

o Short Title: Same Navigation Bar and Body

Description:

Navigation bar and a section in the body of the main page contains same webpages redirection. Same data and information are made redundant and duplicate more than once with no little change. The only difference between the duplicates is that one is in the form of navigation bar and the other is placed as bullets in a section of body of main/homepage.

Heuristic: Aesthetic and Minimalist Design

Location - How reproducible? Hover over any tab in navigation bar and drag the homepage-next to HEC blog

Screenshot: uuu-sameRef.png

O

o Short Title: About Us tab is made available as PDF file

Description:

If users want to read about us of HEC, he is asked to select among few options and then it is displayed as a PDF document. But mostly about us page is in the form HTML page or say webpage.

Heuristic: Speak the Users' Language

Location - How reproducible? Hover over About Us in navbar-click on any option from the dropdown

Screenshot: uuu-aboutUsPDF.png

O

o Short Title: No proper Sign Page of popup

Description:

There is no specified or proper webpage for login. A popup which uses browser popups is used to take login inputs. Mostly almost all the websites contain a proper signin/login webpage to login for user.

Heuristic: Speak the Users' Language/ Aesthetic and Minimalist Design

Location - How reproducible? Drag the homepage below-Bottom right corner-click on login button

Screenshot: uuu-aboutUsPDF.png

O

o Short Title: Empty Image Placeholders

Description:

Some image placeholders are left empty. Some of the webpages containing some images to be displayed are left empty which is less informative for the user. If those pictures were available it would be more informative.

Heuristic: Consistency

Location - How reproducible? Universities- Universities Statistics

Screenshot: uuu-aboutUsPDF.png

O

5 Log File by Saifullah Khan

Evaluator: Saif Ullah Khan

Age: 20

Sex: male

Web Browser and Version: Google Chrome ---- Version 87.0.4280.141 (Official Build) (64-bit)

Operating System and Version: Windows 10 Pro 64-bit (10.0, Build 19041)

(19041.vb_release.191206-1406)

Internet Connection Type: Telenor 3G

Internet Connection Download Speed: 500-800 Kbps

Monitor Size: 16.5"

Monitor Colours: RGB color scheme

Monitor Resolution: 1366x900

Browser Resolution: 1280x860

Date of Evaluation: 31-1-2021

Time of Evaluation: 11:20 AM

Positive Impressions

Title : Accessibility of content

Description

The navigation bar contains the link of all pages, so from the navbar you can access all the content available on the website.

This is very helpful for new users because they didn't have complete knowledge about the website and if we don't show what our website contains, he will not be able to explore it in a better way. So the navbar provides easiness for novice users.

Screenshot : sk_navbar.png

Title : Separation of content

Description

The content of the website is divided into 3 categories (Students, Teachers, Representative). This is helpful for novice users as well

as for expert users, because a student will not mess up with the content related to teachers and vice versa. This categorization reduces the time for searching a specific content related to one category.

Screenshot : sk_category.png

Title : Language duality support

Description

The website supports language duality, user can switch website language between urdu and english. This is helpfull in a scenario like, an urdu mediuem student looking for some information, so changing the language to urdu will be helpfull for him/her. Also if some people which are not familiar with english can use it.

Screenshot : sk_language

Title : Color scheme

Description

The color of this wensite is simple which make it very attractive. Normally users prefer simple colors scheme in websites related to studies because they are concerned with the content not with the colors that much.

Screenshot : sk_color

Title : Free from annoying adds

Description

This website is free from annoying and unnessesary adds which tend the user to spend more time on website as compared to the website which contains adds. In common practise, a user after facing unnecessary adds 3 to 4 time leave the website and search it required information on some other websites or use some other sources.

Problems

Title : Sign in option

Description

The sign in option is located at the bottom right corner and is nearly hidden, because in common practise this button/option is available at the top right place (inside the navbar) so when a user visit the website, he can see it easily. But in HEC website this button is at the end, this is very difficult for novice users to find it.

Heuristic: Recognition Rather Than Recall

Location - Home-->sign in

Screenshot: sk_sign-in

Title : Aimbiguity in error messages

Description

During the sign in operation, when the user enters incorrect username or password, it doesn't show any error, instead it just reload the TAB and again demands for username and password. This will create problem for users during logging in and he/she will not be able to know if the username is wrong or the password is wrong.

Heuristic: Good error message

Location - Home--->sign in--->Enter

Screenshot: sk_signError

Title : Retundancy in tabs/links

Description

The tabs/links in navigation bar are exactly repeated in the footer section.

Location - Home page

Heuristic: Aesthetic and Minimalist Design

Title : Bad design

Description

In the sholarship page, the useful link must be about some scholarships but these are links to the main page.

Location : Home --> Scholarships

Heuristic : Aesthetic and Minimalist Design

Screenshot : sk_links

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