

A Survey Analysis of National and International University Websites Contents

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ABSTRACT

The design of information architecture has a significant impact on people's ability to find information on a website. Many prospective students simply did not know where to look for information if it was not linked from or co-located with the page where they ended their previous task. The present paper studies how university websites could have several practical benefits. A potential method to accomplish this would be to consider for what purposes other universities use their website. Moreover website designers can follow general design guidelines implemented by other members of the genre in order to design their own websites. This study examines a comparative study of national and international universities websites, its features and information available to users. Results shows that the contents in Indian and foreign web sites of universities is not much significant differences.

Key Words:

Internet, Web, Protocol, Web page, Internal users, External users

1. INTRODUCTION

The terms Internet and World Wide Web are often used in every-day speech without much distinction. However, the Internet and the World Wide Web are not one and the same. The Internet is a global data communications system. It is a hardware and software infrastructure that provides connectivity between computers. In contrast, the Web is one of the services communicated via the Internet. It is a collection of interconnected documents and other resources, linked by hyperlinks and URLs. In short, the Web is an application running on the Internet. Internet connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Today internet has brought a globe in a single room. Right from news across the corner of the world, wealth of knowledge to shopping, purchasing the tickets of your favorite movie-everything is at your finger tips. Information that travels over Internet does so via a variety of languages known as *protocols*. The Web uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data. Web sites play a critical role in communication for increasing use of the Web as an information source both inside and outside academia; the centrality of journals in disseminating scientific research etc.

2. RELATED STUDIES

The information present on university websites is very important. Prospective students use university websites to find what programs of studies are offered by a university. Current students may want to look up semester examination results online. Prospective faculty and staff may want to look up for jobs available at university. Most of the studies undertaken so far on university websites have been focusing on either information architecture (Gullikson, Blades, Bragdon, McKibbin, Sparling and Toms, 1999)¹ or on information organization (Corry, Frick and Hansen, 1997)². These studies aimed at enhancing the experience of visitors on university websites. People use website to get information (Nielson, 1999). University websites primary goal is to provide information, especially to prospective students. However, it would not be surprising if university websites from various countries have certain differences. Callahan (2005) and Rajkumar (2003) found cultural differences in university websites of different countries.

Hui-Jung Chang focused in his article the manifestation of culture in the design of English-language and Chinese-language corporate websites, using Hofstede's dimensions of culture. Only multinational corporations that have both English-language and Chinese-language websites were analyzed (N=223). The results indicate that the Chinese-language and English-language websites differ significantly in 4 out of Hofstede's 5 cultural dimensions: power distance, uncertainty avoidance, individualism/collectivism, and long-term and short-term dimensions. Cultural differences are indeed reflected in the website designs of the Global 500 corporations, though not exactly in the direction predicted by Hofstede's model.

A university website has two kinds of audiences: internal users and external users. Internal users include current students enrolled at the university, faculty and staff. External users include prospective students, faculty and staff. Middleton et al (1999) recommended the content/ features for internal users such as Telephone directory, Library catalogues, News, Internal social groups / clubs activities, Timetable etc. They have also recommended the content/ features for External users such as Courses offered, Prospectus, Local city information, Mission statement, University contact, Job openings, Support and pay offered to staff and faculty, Entertainment information, Faculty contact information, Faculty research information etc. They further recommended a search features for university websites. Search feature would make it easier for users to search for specific information they are looking for. There are some features common to both internal and external users. For example, a telephone directory is useful for both internal and external users.

3. RESEARCH QUESTION

In view of the foregoing discussion and considering the nature of present study, the researcher has laid down following research questions.

H_0 Samples of National and International university websites are equally designed for user friendly with average 30 contents.

4. DATA PRESENTATION AND DATA ANALYSIS

The methodology used for this study is content analysis. Only universities which offered bachelors and/or masters degrees (or equivalent) were selected in order to preserve the integrity of the sample. A stratified random sampling procedure is used to draw the samples to be analyzed. 30% of the Indian university websites from each of the 4 types and 10% of the International University websites are selected randomly for analysis. Table 1 below shows the details of

number of websites taken as sample of Indian university websites and Table 2 shows the details of number of websites taken as sample of International university websites.

Table 1: Number of sample websites (National Universities)

Type of university	Total No.	Universities selected for the study (30%)
Central universities	39	13
Open universities	10	3
Deemed universities	130	39
State universities	95	29
Total	274	83

Table 2: Number of sample websites (International Universities)

Name of Country	No of universities	Universities selected for the study (10%)
Australia	39	4
Belgium	16	2
Canada	69	7
China	90	9
Hong Kong	8	1
Ireland	8	1
Japan	90	9
Seoul, South Korea	34	4
New Zealand	8	1
Singapore	12	1
Sweden	14	2
UK	121	12
USA	94	10
Total	615	63

A university website has two kinds of audience's internal users and external users. Internal users of university websites could be current students, faculty and staff working in university while external users could be prospective students, prospective faculty and staff, business people, alumni and so on. The content / features categories selected for study are shown in the Table 3 below.

Table 3: The content / features selected for data collection

Reno.	Content / Features
1	About Us
2	University information [Email /Phone no / Map of university and collages]
3	Courses/Programs Offered [under graduate / graduate / post graduate / distance education]
4	Admission information / Application[term dates]
5	Other information [syllabus, date sheet, revolution forms / procedure]
6	Exam Results
7	Departments / Institutes
8	University News
9	Facilities / Amenities and Services
10	Library Catalogues
11	Alumni Information
12	Internal social groups / Clubs activities / student union
13	Accommodation
14	Placement cell
15	Culture and Sports
16	Health service
17	Old Exam papers
18	Current stud / Future stud
19	International students
20	Student Development
21	Student Exchange
22	Funds / Awards / Polices / Scholarships
23	Apply Online
24	Faculty research / specialization
25	Faculty contact
26	Telephone Directory
27	Electronic Media
28	Search Features
29	Events

30	Date retrieved
31	Website language [E-English / R-Regional / B-Both]
32	Jobs
33	Parents
34	International [support / services]
35	Video / Audio Ideas:
36	Quick Links
37	Visitors
38	Publications [University Journals / Books / Publication by Faculty]
39	Tenders / Circulars
40	Frequently Asked Questions
41	Virtual Classrooms / Virtual Tour
42	Feedback
43	Forth coming events
44	Freedom Of Information Act / Right To Information Act
45	Learning and Teaching
46	Local City / Town Information
47	Media
48	Business
49	Open Days
50	Developed By (H-House, O-Outsource)
51	Accreditation
52	Memorandums of understanding with other universities

4.1. Coding

A coding scheme is developed using the analytical framework proposed by Middleton et al. (1999) and Mateos et al. (2001). For this purpose 83 Indian and 63 international university websites are analyzed.

4.2. Unit of Analysis

Some of the content / features to be analyzed not present on or not linked from the home page. Although it is the design consideration whether to include link to something on the home page, so it is decided to use entire

website contents / features as the unit of analysis for this study. Value 0 is assigned for absent and 1 is assigned for present for every content/feature.

5. FINDING OF THE STUDY

Pursuant to research question mentioned here in above, it is found that some contents are common in both types. Table 4 shows the number of content /feature present for international and national university websites and Table 5 shows Average number of content present in university websites.

Table 4: The number of content /feature on international and national university websites.

SR. NO.	National Universities	% VALUE	International Universities	% VALUE
1	39	75	49	94.23
2	32	61.53	47	90.38
3	34	65.38	45	86.53
4	13	25.0	48	92.30
5	36	69.23	30	57.69
6	22	42.30	17	32.69
7	15	28.84	30	57.69
8	25	48.07	36	69.23
9	16	30.76	39	75.0
10	33	63.46	37	71.15
11	17	32.69	40	76.92
12	30	57.69	40	76.92
13	31	59.61	25	48.07
14	26	50.0	20	38.46
15	16	30.76	22	42.30
16	26	50.0	24	46.15
17	25	48.07	28	53.84
18	13	25.0	17	32.69
19	31	59.61	25	48.07
20	35	67.30	28	53.84
21	30	57.69	23	44.23
22	25	48.07	11	21.15
23	30	57.69	33	63.46
24	18	34.61	40	76.92
25	28	53.84	27	51.92
26	32	61.53	25	48.07
27	24	46.15	20	38.46
28	24	46.15	32	61.53
29	34	65.38	33	63.46

30	37	71.15	26	50.0
31	33	63.46	10	19.23
32	13	25.0	13	25.0
33	28	53.84	09	17.30
34	30	57.69	20	38.46
35	16	30.76	25	48.07
36	32	61.53	22	42.30
37	32	61.53	32	61.53
38	30	57.69	35	67.30
39	34	65.38	35	67.30
40	33	63.46	31	59.61
41	27	51.92	32	61.53
42	23	44.23	35	67.30
43	24	46.15	22	42.30
44	31	59.61	36	69.23
45	21	40.38	31	59.61
46	24	46.15	38	73.07
47	36	69.23	14	26.92
48	29	55.76	38	73.07
49	27	51.92	39	75.0
50	31	59.61	32	61.53
51	27	51.92	27	51.92
52	37	71.15	35	67.30
53	27	51.92	33	63.46
54	26	50.0	24	46.15
55	29	55.76	33	63.46
56	29	55.76	33	63.46
57	26	50.0	31	59.61
58	15	28.84	26	50.0
59	35	67.30	34	65.38
60	34	65.38	30	57.69

61	30	57.69	30	57.69
62	26	50.0	32	61.53
63	35	67.30	30	57.69
64	29	55.76		
65	20	38.46		
66	32	61.53		
67	29	55.76		
68	32	61.53		
69	27	51.92		
70	33	63.46		
71	43	82.69		
72	29	55.76		
73	24	46.15		
74	24	46.15		
75	31	59.61		
76	34	65.38		
77	37	71.15		
78	19	36.53		
79	18	34.61		
80	34	65.38		
81	35	67.30		
82	15	28.84		
83	28	53.84		

Table 5: Average number of content present in university websites

	Average	Standard Deviation	Coefficient of Variation
National Universities (Total = 83)	27.71	6.70	24.19%
International Universities (Total = 63)	29.58	8.85	29.93%

It can be concluded that, on an average contents in both Indian (27.71) and International (29.58) Universities are same. The standard derivation of Indian Universities in selection of contents is less than International Universities. International universities (cv =

29.93%) have more available contents than the national universities (cv = 24.19%). Indian universities have used 53% contents while International universities used 57% contents about their information on their websites that is no significant difference between the contents of the websites. Below Table 6 shows Chi-square test for comparison between Indian and international university websites.

Table 6 : Chi-square test for comparison of university websites

Contents Used in websites	National Universities	International Universities	Total
0-13	3 (3.97)	4 (3.02)	7
14-26	28 (26.15)	18 (19.84)	46
27-39	51 (48.32)	34 (36.67)	85
40-52	1 (4.54)	7 (3.45)	8
Total	83	63	N=146

Here we have

$$X^2 = \sum (f_o - f_e)^2 / f_e$$

$$= 7.613 \text{ calculated value at } (r-1) * (c-1) \text{ df} = 3 * 1 \text{ df}$$

$$X^2_{0.05} = 7.815 \quad \text{Table value of 5\% level of significance with 3df}$$

$$\text{Therefore } X^2 \alpha X^2_{0.05} \quad \text{at 5\% level of significance with 3df}$$

Therefore H_0 (Null) Hypothesis is true at 5% level of significance. That is the contents in websites of both universities national and international is not much significant (same).

The Figure1 shows number of content present in Indian university websites while Figure2 shows the number of content present in international university websites.

Figure1: Number of content present in Indian university websites

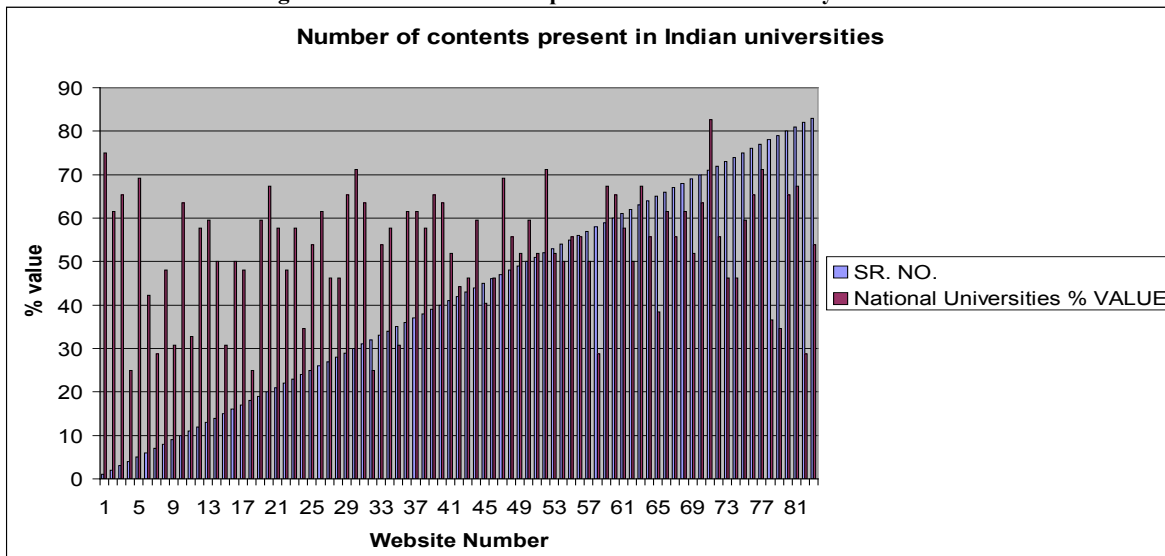
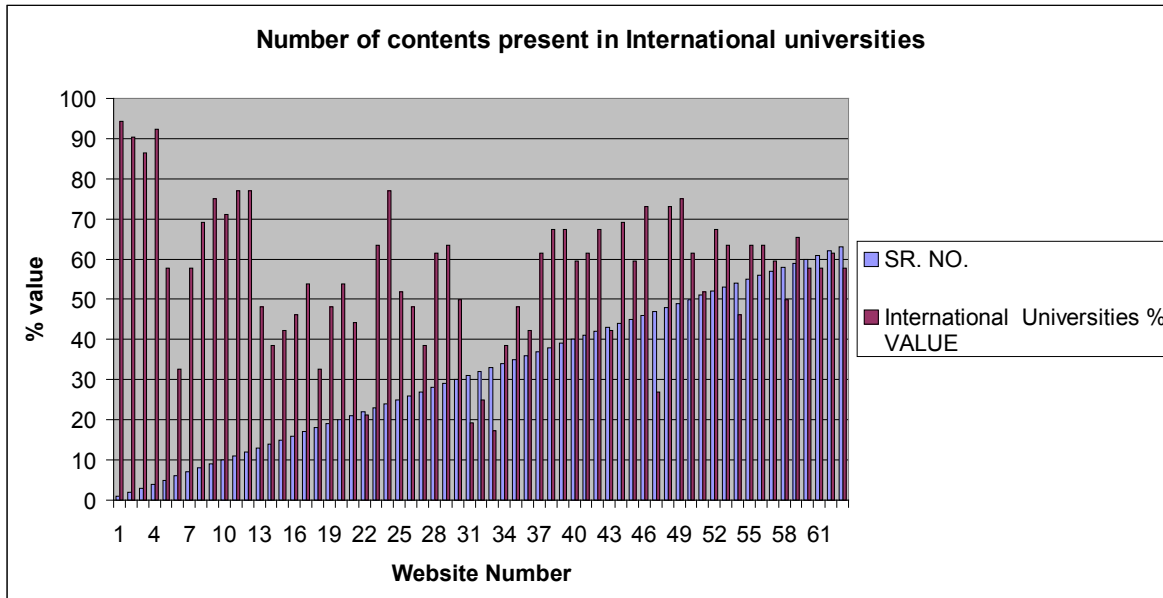


Figure2: Number of content present in International university websites



5.1. Among the most used content / features are

About us, University information, Courses/Programs Offered, Admission information / Application [term dates], Departments/Institutes, University News, Facilities / Amenities and Services , Library Catalogues, Alumni Information, Internal social groups / Clubs activities / student union, Accommodation, Placement cell, Culture and Sports, Health service, Funds / Awards / Polices / Scholarships ,Apply Online, Faculty research / specialization, Faculty contact, Events, Website language, Jobs, Quick Links and Forth coming events

5.2. Among the least used content / features are

Exam results, Old exam papers, student exchange, telephone directory, Parents, Video/audio ideas, Virtual tour, Learning & teaching, Business, and open days

6. CONCLUSIONS

Evidence has been found to indicate that, the researcher has summarized the entire research problem that has attempted to suggest how university websites are more informative by giving more information in limited time. On an average contents in both Indian (27.71) and International (29.58) Universities are same. The standard derivation of Indian Universities in selection of content is less than International Universities. International universities ($cv = 29.93\%$) have more available contents than the national universities ($cv = 24.19\%$). Indian universities have used 53% contents while International universities used 57% contents about their information on their websites that is no significant difference between the contents of the websites. Chi-Square test focuses on the contents in websites of both universities national and international is not much significant.

7. LIMITATIONS

This study has certain limitations. Due to time constraint it is impossible to study contents of all universities in India and abroad. Therefore random universities have been selected from national and international levels. The research does not contain study of design or information organization of university websites. The focus of present study is only on the types of content / features present on websites. As websites are updating frequently, same status of university websites could not be available.

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