

1 **“WEBSITE ANALYSIS IN QUALITATIVE RESEARCH”**

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36 **ABSTRACT**

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39 With the rapid expansion of the internet, qualitative research has adapted to incorporate online  
40 content analysis, offering researchers new methods to examine phenomena in natural  
41 environments. This paper explores the role of qualitative research in analyzing website content,  
42 discussing its methodologies, applications, and challenges. Traditional qualitative techniques such  
43 as interviews, focus groups, and observations are complemented by systematic approaches like  
44 content analysis, triangulation, and grounded theory. The integration of web-based data  
45 collection has enhanced research transparency and accessibility, allowing scholars to examine  
46 elements such as design, content, and interactivity.

47  
48 Additionally, this paper highlights the application of qualitative research methods in the  
49 internationalization of higher education curricula. By analyzing university websites, researchers  
50 can assess global engagement strategies and quality assurance frameworks. Various international  
51 models, including those endorsed by UNESCO and the OECD, provide benchmarks for  
52 evaluating education quality. Content analysis tools such as Nvivo12 and R Studio aid in  
53 structuring and interpreting data, ensuring rigorous analysis.

54  
55 The findings underscore the growing significance of qualitative research in digital spaces,  
56 emphasizing the need for robust methodologies to address the complexities of web-based  
57 content. By leveraging qualitative techniques, researchers can contribute to a deeper  
58 understanding of global online interactions and the evolving role of the internet in academic and  
59 professional fields.

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## 61 INTRODUCTION

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62

63

64 Although Internet use remains somewhat restricted to Western cultures, the degree  
65 of international access to cyberspace is increasing with amazing speed. Recent statistics indicate  
66 the number of global Internet users grew from 563 million to 580 million in the last half of  
67 2002<sup>1</sup> (Nielsen NetRatings). Moreover, certain trends indicate that much of this growth will  
68 occur in areas outside of North America.

69

70 With the increasing dependency on technology, there doesn't seem to be a time when websites  
71 weren't used for conducting research, even on a rudimentary level. Research can either analyse an  
72 already examined phenomenon further or approach a completely new one. The fast expansion  
73 of world wide web has a huge impact on the choices available for web users to engage with other  
74 web users and increased the scope of content generation we see on websites today.

75

76 One definition of qualitative research is a situated activity that places the observer in the real  
77 environment.<sup>2</sup> The world becomes a collection of representations as a result of this interpretive  
78 technique. Field notes, interviews, chats, photos, recordings, and self-memoranda are a few  
79 examples of the representations. In an effort to understand phenomena in terms of the  
80 meanings that individuals assign to them, qualitative researchers investigate objects in their  
81 natural environments.

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<sup>1</sup> <https://www.nielsen.com>

<sup>2</sup> Denzin, N.K. and Lincoln, Y.S. eds., 2011. *The Sage handbook of qualitative research*. sage.

82

83 The following characteristics of qualitative research are listed by Flick (2009): the selection of  
84 suitable methods and theories; the identification and evaluation of various viewpoints; the  
85 researchers' reflections on their work as a component of the knowledge-production process; and  
86 the range of approaches and techniques available.<sup>3</sup>

87

88 Conventional qualitative research techniques, such focus groups, interviews, and observations,  
89 provide contextual relevance and flexibility while shedding light on social circumstances and  
90 human experiences. Nevertheless, these approaches have drawbacks such as subjectivity, bias,  
91 and time commitment. When using offline research sources, transparency and dependability  
92 became crucial issues. For this reason, official reports, information, testimonies, and other  
93 materials are posted on business websites for public viewing.<sup>4</sup> As a result, there is a recent  
94 upsurge in the use of content from different qualitative research approaches to reinforce website  
95 content. Instead of interacting with study samples, researchers can now easily obtain and process  
96 data via the internet. It's as easy as integrating web design analysis.<sup>5</sup>

97 Any aspiring researcher can improve the process and calibre of qualitative research by  
98 incorporating generating content from websites and examining elements including design,  
99 content, navigation structure, multimedia events, and interactivity.<sup>6</sup> Formal approaches, such  
100 systematic comparative methodologies, can improve the rigour and reproducibility of qualitative  
101 investigations, according to Griffin and Ragin (1994). In order to generate more reliable and  
102 broadly applicable results, the authors emphasise the advantages of integrating formal analytical  
103 tools with qualitative insights.

104

105 Qualitative data may be more difficult to analyse than quantitative data because of its open-  
106 ended nature. Three steps are often involved in qualitative research:<sup>7</sup>

107

- 108 I. Research planning entails deciding on the study's objectives, research questions, research  
109 methodologies, and participant count.
- 110 II. Researching: you do your investigation and collect information.
- 111 III. Analysing the outcomes: you examine the gathered information in search of trends and  
112 useful information.

113

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## 114 **APPROACHES TO QUALITATIVE DATA ANALYSIS**

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<sup>3</sup> Flick, U. (2013). The SAGE Handbook of Qualitative Data Analysis. Available at: [http://www.sagepub.com/upm-data/58869\\_Flick\\_The\\_SAGE\\_HB\\_of\\_Qualitative\\_Data\\_Analysis.pdf](http://www.sagepub.com/upm-data/58869_Flick_The_SAGE_HB_of_Qualitative_Data_Analysis.pdf)

<sup>4</sup> Al-Olayan, F.S. and K. Karande, A Content Analysis of Magazine Advertisements from the United States and the Arab World. *Journal of Advertising*, 2000; 29(3): 69-82.

<sup>5</sup> Flick, U. (2011): *Triangulation*. New and updated 3rd edition. Wiesbaden: VS Verlag.

<sup>6</sup> Cunliffe, A. L. (2019): *Crafting Qualitative Research: Morgan and Smircich 30 Years On*. Published by SAGE. Available at <http://orm.sagepub.com/content/14/4/647>

<sup>7</sup> Dey, I. (1993). *Qualitative Data Analysis. A User-Friendly Guide for Social Scientists*. London: Routledge.

117 **THEORETICAL PROPOSITIONS**

118 According to Craig et al. (2008), theory is considered a crucial phase in the design, assessment,  
119 and synthesis of evidence for interventions. By concentrating on particular factors or outlining  
120 the perspective the researcher will use when examining and interpreting the data, a theory can be  
121 utilised to define the scope of pertinent notions. Providing conceptual definitions, elucidating  
122 causal linkages, and testing theoretical claims empirically are all steps in the social sciences'  
123 theory development process (Jaccard and Jacoby, 2020).

124  
125 Applying theory has several advantages, such as offering a common language for communication  
126 and a framework for designing and evaluating interventions. An accumulation of knowledge that  
127 might be utilised to forecast and explain results in novel circumstances can be made possible by  
128 this common understanding (Dalgetty et al., 2019; Jaarsma et al., 2020a; Michie & Prestwich,  
129 2010).

130 A nomological network connects theoretical concepts like intelligence, effort, academic success,  
131 and earning potential. These connections are always referred to as propositions. Finding the  
132 main ideas and concepts that underlie a certain phenomenon or action is insufficient when  
133 looking for explanations for it. Finding and stating patterns of interactions between these  
134 constructs is also necessary. Propositions are such patterns of interactions. The researcher can  
135 start the study with a theoretical assumption if he expects, for example, that an action would  
136 result in a particular reaction. This proposition's opposites are hypotheses that will be addressed.  
137 During the research, it is the hypothesis that can be tested.

138  
139 Since multiple theories are typically accessible, the researcher can use observations or empirical  
140 data collection to validate the theory that best matches the facts (cf. Zikmund et al. 2009: 42-43).  
141 According to Zikmund et al. (2009: 43–44). The prototype idea, for instance, can be used as a  
142 framework for assessing websites created for consumers from various cultural backgrounds. In  
143 turn, these assessments can assist people in producing more impactful online content for global  
144 audiences.

145

146 **TRIANGULATIONS**

147 In qualitative research, triangulation is the process of using several techniques or data sources to  
148 create a thorough understanding of a phenomenon (Patton, 1999). Through the convergence of  
149 data from various sources, triangulation has also been seen as a qualitative research technique to  
150 test validity.<sup>8</sup> According to Denzin, a better level of trust in the results is driven by the use of  
151 multiple methods and sources to obtain data.

152 Four types of triangulation were distinguished by Denzin (1978) and Patton (1999): technique  
153 triangulation, investigator triangulation, theory triangulation, and data source triangulation. The  
154 researcher compares the results utilising one measurement methodology with those from  
155 another. Triangulations increase the reliability of the results if the second approach validates the  
156 first one's findings. If not, it may be interpreted as evidence that relying solely on one metric or  
157 procedure is not necessarily trustworthy (cf. Bryman 2003: 1142). Triangulation enables

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<sup>8</sup> Bryman, A. (2003). Triangulation. *Encyclopaedia of Social Science Research Methods*. Thousand Oaks, CA: SAGE Publications. 8 Nov. 2011. Available at: [http://www.sagepub.com/chambliss4e/study/chapter/encyc\\_pdfs/4.2\\_Triangulation.pdf](http://www.sagepub.com/chambliss4e/study/chapter/encyc_pdfs/4.2_Triangulation.pdf)

158 academics to develop a more complex picture of the phenomena under study when it comes to  
159 website analysis. As an illustration, a group of researchers may examine the content of a website  
160 separately before comparing their results to reach an agreement. This improves the research's  
161 quality and objectivity.  
162

### 163 **GROUNDING THEORY**

164 Grounding theory is an inductive method of developing hypotheses from derived facts, in  
165 contrast to conventional research methodologies.<sup>9</sup> Grounding theory is described as "theory that  
166 was derived from data, systematically gathered and analysed through the research process".<sup>10</sup>  
167 (1998, referenced in Bryman & Bell 2011: 576). Data collection, analysis, and final theory are all  
168 closely related to each other in this approach. Open coding, in which the researcher  
169 methodically examines the website data to find recurrent ideas and concepts, is suitably adhered  
170 to by the theory. These have codes on them. Examining university websites for terms like "global  
171 citizenship," "diverse community," or "study abroad programs" to identify internationalisation  
172 themes is one technique to demonstrate how effective this is. Axial coding is then used to  
173 categorise them, and selective coding is used to create a primary theme. This theory's primary  
174 goal is to make sure that new insights are arising organically from the data rather than as a result  
175 of applying pre-existing beliefs.  
176

### 177 **CONTENT ANALYSIS**

178 Researchers have a plethora of chances to obtain and study data on the web's platforms. The  
179 question of whether the presented web information is enough across all study fields emerges in  
180 accordance with the earlier qualitative research methodologies covered above. Without a doubt,  
181 content analysis is the most suitable method for qualitative research when examining website  
182 content because web data is largely unstructured and comes in a variety of ways. Since it may be  
183 applied to both quantitative and qualitative research components, content analysis is a popular  
184 research approach for an unbiased, almost quantitative investigation of material. Qualitative  
185 content analysis, which is usually based on an individual's perspective, is comparable to textual  
186 analysis in that it is largely interpretive in nature and frequently does not use statistics for data  
187 analysis.<sup>11</sup>

188 It is described as "an approach to documents that emphasises the role of the investigator in the  
189 construction of the meaning of and in texts".<sup>12</sup> Allowing categories to develop from data and  
190 appreciating their importance in comprehending the significance of the context in which an item  
191 under analysis (and the categories that resulted from it) appeared are both stressed. However,  
192 there are numerous obstacles to overcome when doing content analysis on Web-based content,  
193 including coding and sampling. Generalisability and representativeness are impacted by the  
194 intricacy of the combination of different media features in the Web content.  
195

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<sup>9</sup> Birks, M., and Mills, J. (2010). *Grounding Theory*. Thousand Oaks, CA: Sage Publications.

<sup>10</sup> Corbin, J., and Strauss, A. (1990). *Grounding Theory Research: Procedures, Canons, and Evaluative Criteria*. *Qualitative Sociology*, Vol. 13, No. 1, 1990. Available at: <http://link.springer.com/article/10.1007%2FBF00988593>

<sup>11</sup> Franzosi, R. (2007). *Content Analysis: Objective, Systematic, and Quantitative Description of content*. Available at: [http://www.unive.it/media/allegato/Scuola-Dottorale/2011/allegato/Content\\_Analysis\\_-\\_Introduction.pdf](http://www.unive.it/media/allegato/Scuola-Dottorale/2011/allegato/Content_Analysis_-_Introduction.pdf)

<sup>12</sup> Bryman, A., and Bell, E. (2011). *Business Research Methods*. 3rd Edition. Oxford: Oxford University Press.

196 Potential issues with data collection arise from the websites' constant content changes. McMillan  
197 discovered that the majority of the research that used content analysis on the collected data was  
198 done in a period of one to two months.<sup>13</sup> There have been reports of data gathering times as  
199 short as two days and as long as five months.<sup>14</sup>

200

201 Finding the process, coding scheme, and categories is crucial since data validity increases  
202 reliability. Therefore, a careful operation of training coders and checking the reliability is of  
203 importance to overcome potential subjectivity.<sup>15</sup>

204

#### The Stages of Content Analysis

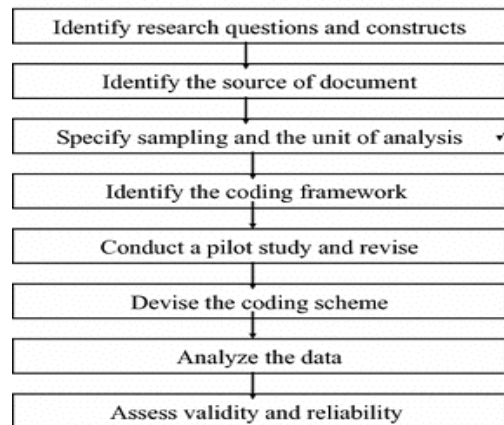


Fig: A flowchart for content analysis research

205

206

207

208 Numerous research have already been carried out, despite the difficulty of applying content  
209 analysis to Web-based content. For instance, Singh and Baack used content analysis to examine  
210 how cultural values are represented on websites in Mexico and the United States<sup>16</sup>. Using  
211 Hofstede's model of cultural dimensions<sup>17</sup>, Callahan's study<sup>18</sup> looked at cultural differences and  
212 similarities in university website design. It discovered that while there are correlations between  
213 graphical elements and Hofstede's index values, they are statistically weaker than first thought.  
214 New tools that use automated computer programs to assess Web information were created  
215 concurrently with the advancements of the Web.

216

217 WebAnalyzer is a software program that was introduced<sup>19</sup>. It automatically collects and examines  
218 parameters including a website's HTML code and details about its characteristics, such as the

<sup>13</sup> R.F. POTTER, Measuring the "Bells & Whistles" of a New Medium: Using Content Analysis to Describe Structural Features of Cyberspace. In *Proc. of 49th Annual Conference of the International Communication Association*, (1999), San Francisco, CA.

<sup>14</sup> Zikmund, W. G. et. al. (2009). *Business Research Methods*. 8th edition. Stamford, CT: Cengage Learning.

<sup>15</sup> Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17). Available at: <http://PAREonline.net/getvn.asp?v=7&n=17>

<sup>16</sup> Singh, N. and D.W. Baack, Web Site Adaptation: A Cross-Cultural Comparison of U.S. and Mexican Web sites. *Journal of Computer-Mediated Communication*, 2004; 9(4).

<sup>17</sup> Hofstede, G., *Cultures and Organisations: Software of the Mind: Intercultural Cooperation and its Importance for Survival*, New York: McGraw Hill; 1991.

<sup>18</sup> Callahan, E., Cultural Similarities and Differences in the Design of University Web Sites. *Journal of Computer-Mediated Communication*, 2005; 11: 239-273.

<sup>19</sup> Bauer, C. and A. Scharl, Quantitative Evaluation of Web Site Content and Structure. *Internet Research: Electronic Networking Applications and Policy*, 2000; 10: 31-43.

219 quantity of photos and external links. It is often known that human programmers find it quite  
220 challenging to analyse complete websites, mostly due to the fact that many websites have  
221 thousands of pages. As a result, researchers will benefit from the ability to parse entire websites  
222 rather than simply the home page as a unit of analysis by applying computer analysis content  
223 approaches<sup>20</sup>

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224

## 225 **QUALITATIVE APPROACHES TO IMPLEMENT INTERNATIONALISATION** 226 **IN CURRICULUMS FOR HIGHER EDUCATION**

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227

228

229 Higher education internationalisation fosters the exchange of best practices in academia and  
230 research through contacts across various educational systems and aids in the development of  
231 global citizens through student and scholar mobility.

232

233 Internationalisation of the curriculum is defined as the "incorporation of international,  
234 intercultural, and/or global dimensions into the content of the curriculum as well as the learning  
235 outcomes, assessment tasks, teaching methods, and support services of a program of study,"  
236 according to Betty Leask, professor at La Trobe University.<sup>21</sup> Beginning with Takshashila, which  
237 drew thousands of students from around the globe to study in a wide range of subject areas at  
238 this institution, student mobility and international exchange occurred in ancient India. Later on,  
239 the University of Nalanda also drew a large number of academics from around the world.<sup>22</sup>

240

241 Website analysis in qualitative research can play a pivotal role in fostering a culture of  
242 internationalisation within higher education curricula. By examining how universities present  
243 their global initiatives, partnerships, and intercultural learning opportunities, researchers can  
244 gather insights into effective strategies for embedding international perspectives into educational  
245 practices.

246

247 Higher education institutions are in a position to strengthen international cooperation and  
248 highlight the significance of high-quality provision in transnational education and  
249 internationalisation efforts as the forces of globalisation continue to reduce the time and  
250 distance between students and educational providers during the knowledge era.<sup>23,24</sup> In order to  
251 achieve fair, accessible, and high-quality learning outcomes, the United Nations Educational,  
252 Scientific, and Cultural Organisation (UNESCO) in 2015 urged governments, intergovernmental  
253 organisations, universities, faculty, and student stakeholders to work together globally (UNESCO,  
254 2015).

255

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<sup>20</sup> Neuendorf, K.A., *The Content Analysis Guidebook*, London: Sage Publications; 2002.

<sup>21</sup> <https://scholars.latrobe.edu.au/bleask/publications>

<sup>22</sup> Pashupati, K. and J.H. Lee, Web Banner Ads in Online Newspapers: A Cross-National Comparison of India and Korea. *International Journal of Advertising*, 2003; 22: 531-64

<sup>23</sup> Vincent-Lancrin et al., 2015

<sup>24</sup> de Wit, 2020; Knight, 2016

256 **IMPLEMENTING TRIANGULATIONS**

257 Heiser examined and evaluated five globally recognised frameworks for quality assurance: the  
258 International Institute of Online Education with UNESCO (IIOE), the European Association  
259 of Distance Teaching Universities (EADTU), the Commonwealth of Learning (COL), the Asian  
260 Association of Open Universities (AAOU), and the Quality Assurance Agency (QAA). To lessen  
261 prejudice, all frameworks were anonymised.<sup>25</sup> The frameworks were chosen based on geographic  
262 region, contextualised for implementation at the institutional level, available in English, created  
263 by stakeholders globally distributed across the region they represent, and inclusive of distance  
264 learning modalities. Furthermore, the COL framework was adopted by the African Council for  
265 Distance Education (ACDE), meaning that Commonwealth nations and African distance  
266 education providers are represented by it. This determined what quality means to support  
267 internationalization efforts for education, to distill international indicators and variables.<sup>26</sup>  
268

269 **IMPLEMENTING CONTENT ANALYSIS**

270 Krippendorff (2018) asserts that in order to conceptualise meaning to inquiry objectively,  
271 content analysis necessitates uniting text-driven research designs. Content analysis was  
272 determined to be the best suitable approach for this study since it directly operationalises the  
273 context of the text through a network of stable correlations or contributing conditions in an  
274 analytical construct to guarantee reliability and minimise bias<sup>27</sup>  
275

276 Evaluation is a tactic that can inform quality dimensions, and the OECD's Education at a Glance  
277 report (2021) is the reliable source of global education statistics used to assess and track the  
278 effectiveness of educational systems<sup>28</sup>.<sup>29</sup> In order to comprehend the intricate interaction  
279 between global evaluation metrics and international quality criteria, the report was divided into  
280 five sections. Indicators of the contextual aspects of educational systems and its actors fall under  
281 the first group. Indicators of the input into educational systems or the learning environment are  
282 under the second group. In order to promote cross-border education initiatives and activities, the  
283 third category focusses on internationalisation strategies and process indicators. Indicators of  
284 involvement and advancement inside educational institutions make up the fourth group. The  
285 production, results, and effect indicators of education systems are finally covered in the fifth  
286 category.  
287

288 Nvivo12 was used to code and tabulate each category for analysis. In order to help  
289 internationalisation efforts for transnational remote education, anonymised data was then  
290 retrieved from the Nvivo program and imported into R Studio for additional interpretation. This  
291 allowed for the delineation of the quality aspects.

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<sup>25</sup> Howe, K., & Eisenhardt, M. (1990). Standards for qualitative (and quantitative) research: A prolegomenon. *Educational Researcher*, 19(4), 2–9.

<sup>26</sup> Darajat et al., 2015; Esfijani, 2018; Martin et al., 2017

<sup>27</sup> B. BERELSON, *Content Analysis in Communication Research*. Free Press, New York, 1952.

<sup>28</sup>[https://www.google.com/search?client=safari&rls=en&q=OECD%27s+Education+at+a+Glance+report+\(2021\)&ie=UTF-8&oe=UTF-8](https://www.google.com/search?client=safari&rls=en&q=OECD%27s+Education+at+a+Glance+report+(2021)&ie=UTF-8&oe=UTF-8)

<sup>29</sup> Weare, C. and W.Y. Lin, Content Analysis of the World Wide Web: Opportunities and Challenges. *Social Science Computer Review*, 2000; 18(272).



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293 **GENERAL APPLICATIONS OF WEBSITE ANALYSIS IN**  
294 **INTERNATIONALISATION**

295

296 In response to growing globalisation, there are few ways to assess whether colleges have  
297 successful international programs or policies. When developing an internationalisation strategy,  
298 higher education institutions are encouraged to include stakeholders such as industry, alumni  
299 groups, international organisations, and regulatory bodies. It is common to observe that  
300 educational institution websites place a high priority on internationalisation through both textual  
301 and visual material. Beelen and Jones (2015) stress that curriculum internationalisation is directly  
302 impacted by inclusive digital communication. Incorporating practices like accessibility, inclusivity,  
303 and multilingualism aids in the development and implementation of an internationalisation  
304 culture, which is currently thought to be accomplished more successfully because to the  
305 extensive use of technology and international outreach initiatives.

306

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307 **SHORTCOMINGS OF WEBSITE ANALYSIS TO CONDUCT QUALITATIVE**  
308 **RESEARCH**

309

310

311 Researchers may run into issues with sampling when working online (Andrews et al., 2003;  
312 Howard, Rainie, & Jones, 2001). By providing access to email lists created from other online  
313 polls that were performed using the web survey service, several modern web survey services give  
314 users access to specific populations. Based on information from earlier surveys, some provide  
315 access to certain demographics. However, there is no assurance that respondents to earlier polls  
316 gave correct demographic or characteristic data if the data were self-reported.

317

318 Furthermore, conclusions were derived solely from the content of the websites without human  
319 confirmation; as a result, they might be impacted by additional elements like technical problems  
320 and the degree of information transparency, which could result in a poor assessment. It could be  
321 beneficial to conduct additional evaluation in order to corroborate the results and conduct  
322 complementary research using different methods, like observations.

323

324 Some researchers use chat rooms, discussion forums, and community bulletin boards to reach  
325 potential participants by inviting them to complete a survey. Online community members, on the  
326 other hand, frequently view this behaviour as impolite or disrespectful (Hudson & Bruckman,  
327 2004)<sup>30</sup> or as "spam" (Andrews et al., 2003). Promoting community corporation and consent is  
328 crucial for this.<sup>31</sup>

328

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<sup>30</sup> Hudson, J.M. and Bruckman, A., 2004. "Go away": Participant objections to being studied and the ethics of chatroom research. *The information society*, 20(2), pp.127-139.

<sup>31</sup> Koehler, W., An Analysis of Web Page and Web Site Constancy and Performance. *Journal of the American Society for Information Science*, 1999; 50(2): 162-180.

329 **ETHICAL CONSIDERATIONS WHILE CONDUCTING WEB-BASED**  
330 **RESEARCH**

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331  
332

333 These days, one of the most popular ways to gather data worldwide is through online research  
334 (Maronick, 2009). According to Buchanan and Hvizdak (2009), internet research incorporating  
335 online or web surveys was the most frequently suggested and approved approach by 750  
336 university Human Research Ethics Boards surveyed. In addition to online and web surveys, a  
337 variety of novel methods are being developed, including spatial mapping, data collecting via  
338 virtual observation in interactive environments including blogs, websites, chat rooms, and social  
339 media platforms, and more (Warrell & Jacobsen, 2014). Nowadays, it's normal practice to attract  
340 potential participants and obtain access through social networking sites like Facebook, LinkedIn,  
341 and Twitter.

342

343 Although these online platforms give researchers the chance to quickly reach a huge number of  
344 individuals, there are serious ethical issues with their use. Similar to other human-centric  
345 research, website-based research is guided by ethical values such as beneficence, justice, and  
346 respect for autonomy (Kitchin, 2007). Because autonomy places a strong emphasis on people's  
347 rights to privacy and dignity, researchers must safeguard participants' private information and  
348 make sure their involvement is voluntary (Flicker, Haans, & Skinner, 2004). This entails  
349 protecting users' private information online and preventing disclosures that can jeopardise their  
350 anonymity (Gelinias et al., 2017). Informed consent is how the Declaration of Helsinki  
351 operationalises autonomy (World Medical Association, 2017).

352

353 Fairness, equality, and transparency in the treatment of study subjects are guaranteed by justice  
354 (Kitchin, 2007). In order to prevent taking advantage of vulnerable groups, researchers must be  
355 transparent about their identities, procedures, and study objectives (World Medical Association,  
356 2006). For example, justice requires truthfulness in online hiring and truthful disclosure of risks  
357 and rewards (Gelinias et al., 2017).

358 In order to be considered beneficent, people must minimise harm and maximise benefits  
359 (Kitchin, 2007). Risks associated with website-based research include the inadvertent release of  
360 participant identities or private information, which could result in humiliation, damage to one's  
361 reputation, or legal problems (Townsend & Wallace, 2016). Strong data protection procedures  
362 must be put in place by researchers to mitigate these hazards.

363 The dynamic nature of internet-based research presents new issues even though it still adheres  
364 to standard ethical principles.

365

366 These include getting informed permission in virtual environments, maintaining confidentiality,  
367 and guaranteeing anonymity. Risks may increase with more researcher-participant engagement,  
368 requiring customised ethical solutions. The type of engagement and the usage of publicly  
369 available online resources frequently determine whether website-based research qualifies as  
370 human-subject research<sup>32</sup>. Ethics boards usually do not examine non-intrusive research that uses

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<sup>32</sup> Panel on Research Ethics, 2014

371 publicly available data, although there are still disagreements about what online areas are private  
372 and public.<sup>33</sup>

373

374 One such instance is the Facebook data mining issue, in which researchers' attempts failed to  
375 protect user anonymity (Zimmer, 2010). This event underlines how challenging it is to safeguard  
376 privacy in digital settings and how ongoing ethical vigilance in website-based research.

377

## 378 CONCLUSION

379

380 There is a vast amount of user-generated content since Web 2.0 technologies enable users to  
381 produce their own material, primarily on social networking sites. Such data can be subjected to  
382 content analysis through website analysis to determine user attitudes, preferences, and  
383 behaviours as well as social and communicational trends and patterns. Notwithstanding these  
384 drawbacks, we discovered that using the different methods of qualitative research analysis on  
385 Web-based content is a reasonably simple technique that enables researchers to conduct and  
386 compile data whenever they choose without requiring drawn-out ethics approval processes. The  
387 approach offers a wealth of opportunities to examine user preferences, styles, or patterns  
388 without requiring the researcher to interact with the users. To ascertain the influence of the value  
389 obtained from transnational student participation at the higher education institution and on  
390 socioeconomic benefits within local communities and cultures, more research is required to  
391 evaluate and measure quality parameters. Last but not least, the worldwide epidemic has acted as  
392 a creative disruptor and motivator for universities and potential students to think of novel  
393 teaching strategies and prospects.

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