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Abstract

The effectiveness of any digital marketing strategy is strongly dependent on the user experience of the website being promoted. A website that is difficult to browse, confusing or slow to load the content can result in a poor user experience and, as a result there is a loss in leads or consumers. A website that is easy to use, well-organized and optimised for mobile devices, on the other hand can help improve user engagement, raise conversion rates and ultimately boost the success of digital marketing initiatives. This paper shows the significance of website usability in digital marketing and explores the impact of website usability on user experience and how it can affect the key performance indicators such as bounce rates, session duration and conversion rates. By emphasising the importance of website usability in digital marketing, this paper intends to give actionable insights for business looking to improve the user's website's user experience and maximise the digital marketing campaigns. Understanding the impact of website usability on the performance of digital marketing efforts allows organisations to make informed decisions regarding website design and functionality to create good user experience that increases engagement and conversion.

Index terms—

The Importance of Website Usability in Digital Marketing: A Review Heemakshi Sharma

1

2 ABSTRACT

The effectiveness of any digital marketing strategy is strongly dependent on the user experience of the website being promoted. A website that is difficult to browse, confusing or slow to load the content can result in a poor user experience and, as a result there is a loss in leads or consumers. A website that is easy to use, well-organized and optimised for mobile devices, on the other hand can help improve user engagement, raise conversion rates and ultimately boost the success of digital marketing initiatives. This paper shows the significance of website usability in digital marketing and explores the impact of website usability on user experience and how it can affect the key performance indicators such as bounce rates, session duration and conversion rates. By emphasising the importance of website usability in digital marketing, this paper intends to give actionable insights for business looking to improve the user's website's user experience and maximise the digital marketing campaigns.

Understanding the impact of website usability on the performance of digital marketing efforts allows organisations to make informed decisions regarding website design and functionality to create good user experience that increases engagement and conversion.

Keywords: digital marketing, website design, website usability, mobile optimisation (responsiveness), search functionality (SEO).

3 I. INTRODUCTION

The creation of websites for the internet or a private network is referred to as web development. Web development projects can range from simple static plain text sites to complicated web apps like e-commerce development and

5 CSS (CASCADING STYLE SHEETS)

42 social network services. Web engineering, web design, website development, client liaison, client-side/server-side
43 scripting, web server and network security settings and ecommerce development are all part of this process of
44 website development.

45 Website development often focuses on the non-design components of website creation, such as writing, markup
46 and coding. CMSs (content management systems) can be used to make modifications to material easier and more
47 accessible. Web development teams in larger organisations may contain numerous workers who use standard
48 approaches such as Agile methodology. In contrast, smaller businesses may only need to hire one full-time or
49 contracted developer or they might combine job roles such as having a single person handle both graphic design
50 and data systems maintenance [1].

51 Web development can be a collaborative effort amongst departments, and there are three sorts of web developer
52 specializations: front-end developer, back-end developer and a full-stack developer. Front-end developers work
53 on the behaviour and graphics that appear in the user's browser while back-end developers work on the servers.
54 Full-stack developers are the ones that cover both the front-end and back-end developer's part.

55 Personal networking and marketing have also been influenced by web development. Websites are no longer
56 merely instruments for work or commerce, they are now platforms for communication and social networking.
57 Social media such as Facebook and twitter provide people with a platform to communicate and a more personal
58 and interactive manner to engage the public.

59 The notation of the worldwide web is inextricably tied with the Hypertext Markup Language (Html). Html
60 is used to define web page components such as sections, paragraphs, headers, tables, lists and interactive forms.
61 This term is employed to depict the arrangement or format of webpages. Html also enables for the incorporation
62 of external resources such as photos, videos and other things into a webpage.

63 Modern web development practices emphasize structure and style separation, with HTML defining structure
64 and CSS (Cascading Style Sheets) defining style. JavaScript is another language that is widely used in conjunction
65 with HTML to provide interactivity and dynamism to web pages the emergence of web 2.2 necessitates the
66 evolution of web languages in order to formalise already recognised best practices in online development. We
67 examine the significant innovations in new web standards and protocols.

68 In this paper the emphasis is mostly on the new HTML version, its components and extensions and new CSS
69 syntax possibilities. Also new JavaScript APIs that enable whole new ways of web development like browser-
70 based databases, Geolocation and full duplex communication between a browser and a server have been used
71 over here.

72 4 II. CONVENTIONAL TECHNOLOGIES IN WEB DEVEL- 73 OPMENT

74 It is usual practice to categorise web technologies based on whether they are used on the client -side or server-side
75 of online applications. Understanding the main categories of web technologies is critical for individuals who want
76 to work in web development. As a result, below is the list of web development technologies organised by usage
77 category: [2] HTML or hypertext markup language is a computer language designed to make it easier to develop
78 web pages that can be visited by anyone with Internet connection. It is a simple language to learn, and most
79 individuals can understand the fundamentals in a single setting under the direction the organization responsible
80 for establishing and maintaining the language. The language is regularly updated and enhanced to suit the
81 expectations of the increasing Internet audience. Hypertext is used to build hyperlinks, which allows the user
82 to navigate the web. HTML tags are used to mark up the text within them, marking it as a specific kind (for
83 example italicised). HTML is classified as a markup language because it uses code words and syntax similar to
84 markup languages.

85 HTML is made up of short codes that the website designer types into a text file, which is then saved as an
86 HTML file and accessed by web browser such as Google Chrome, Mozilla Firefox or Internet Explorer. The
87 browser scans the file and converts the text into an image. A simple text editor or a complex graphical editor can
88 be used to build HTML pages. The language is written in the form of HTML elements, which are tags contained
89 in a angular brackets such as HTML, within the text of a webpage. HTML tags are often used in pairs, with the
90 first tag serving as the start tag and the second tag serving as the end tag (also known as the opening tag and
91 closing tag). Text, tags and other elements can be added by web designers.

92 Web browser scan HTML documents and employ tags to interpret the content of the page and display it
93 visually and vocally. HTML components are the basic building blocks of all web pages and web browsers may
94 also use CSS to specify the appearance and layout of text and other content.

95 5 CSS (Cascading Style Sheets)

96 CSS is the language used to specify the appearance in formatting of a page produced in a markup language, the
97 most common of which formatting uniformity across numerous pages and lower structural content complexity.
98 CSS may also be used to apply different styles depending on the rendering technology such as on screen of
99 Braille based devices or different screen sizes. CSS is classified into 3 types: inline, internal or embedded and
100 external. CSS benefits include time savings through the reuse of style sheets, quicker website loading times easier

101 maintenance through global updates, the potential to build superior styles compared to HTML, interoperability
102 with many platforms and adherence to worldwide web standards.

103 **6 JavaScript**

104 JavaScript is a computer language that developers all over the globe used to produce dynamic and interactive
105 online content. It is a lightweight, interpreted language that together with HTML and CSS is a key component of
106 the world wide web. JavaScript scripts are embedded in or included from html text as a client -side programming
107 language and execute directly in the user's browser. One of the JavaScript's key advantages is its speed, since it
108 can be executed directly within the client -side browser without the need for network calls to a backend server.
109 It is also an easy language to learn and use and it is extensively used and popular. JavaScript also has high
110 compatibility with other languages making it ideal for a wide range of applications including the creation of rich
111 interfaces.

112 It also decreases the strain on website servers because it is client -side. However, because the code operates
113 on the user's computer, it may occasionally be abused for nefarious reasons, which is why some users disable
114 it. Furthermore, JavaScript is sometimes interpreted differently by different browsers, making cross browser
115 programming challenging to build.

116 **7 Java**

117 Java is a general-purpose object-oriented programming language with the large number of implementation
118 requirements. It is an objectoriented programming language with as minimal implementation dependencies as
119 feasible. It is commonly used to create a wide range of applications functional on desktops, mobiles and online.
120 It was created in the mid-1990s by James Gosling and his colleagues at Sun Microsystems and is now owned by
121 Oracle Corporation. Java is well known for its "write once run anywhere" principle with states that Java code
122 may be written on one platform and run on any other platform that supports java virtual machine (JVM). The
123 JVM is an essential component of java since it allows java applications to run on any platform. Java is also well
124 known for its powerful memory management, security features and extensive API library making it a popular
125 choice for developing robust and scalable applications.

126 **8 III. GRAPHICAL USER INTERFACE (GUI) TECHNOLOGIES**

128 **9 Conversational Artificial Intelligence**

129 **10 Digital Assistants**

130 "SIRI" if the most well-known iPhone application, while "Google Voice assistant" is the most wellknown Android
131 software application and Alexa is the most well-known Amazon product. These programs, all have one thing
132 in Common: they are speech -based assistants that respond to voice instructions. Voice based assistants have
133 become the featured alternative for completing monotonous course as speech to text technologies and gadget
134 processing capacity have advanced.

135 When a result, when individuals began utilising voice assistants to search the Internet there has been a rise in
136 speech -based searches. This has had an influence on the usual method of looking for the text in the browser search
137 engine, which in turn has an impact on the search results provided by search engines. The content individuals
138 obtained changes as search engine processing involves.

139 This modification has an impact on the digital marketing tactics used by the websites to generate traffic and
140 promote their business and increase the productivity. Many people feel that the rise of voice -based search will
141 benefit digital marketing.

142 **11 Impact of Voice Assistants on Marketing**

143 **12 Let us take a look at how speech technology is being used in marketing:**

144 ? A new firm has already gained a footing in the voice industry by providing customers with interesting,
145 interactive experiences (Business2 Community)

146 ? According to Capgemini, 24% of Internet users would rather contact with a firm via personal assistant than
147 through its website.

148 ? According to bright edge, just 3.1% of marketers included voice search into their content marketing strategy
149 in 2017.

150 ? According to Digi day 43% of companies have already invested in speech technology for marketing purposes.
151

13 The potential for voice technology in marketing look to be quite bright! Companies are utilising digital assistants for internal functions:

Salesforce, a cloud software giant has entered the digital assistant discussion with the launch of Einstein voice, an expansion of its Einstein AI platform. Sales managers may use this technology to handle cloud services and narrate notes without touching the screen or inputting anything.

Einstein voice may also be combined with comparable technology to send team pipeline updates, calendar appointments and other essential priorities to the team in a more effective manner. Einstein voice bots, another fascinating offering enabling clients to create their own voice activated assistant and branded, engaging the end user on any smart speaker [4].

14 Incorporating Voice-Activated Technology into Marketing Can be Challenging

Including speech technology in the user's marketing approach needs significant thought and planning. The user should consider if the user's target audience is likely to interact with the user's brand using speech technology and whether the user's content can provide value through this platform. Before investing into technology, user should evaluate the odds of success [8]. If user is still unclear about any of these considerations it could be preferable to wait and see how other companies are utilising voice technology before making a decision. Investigating how user's rivals use voice technologies might also give useful information [7].

15 Google Maps Marketing

Integrating Google Maps into user's website can provide the user's business with increased visibility and accessibility to potential customers who use the service to find local businesses for it allows customers to easily find directions, location information and learn about the services the business provides. Google Maps integration can improve user experience by helping visitors find information quickly and easily, especially for mobile users. It can also provide valuable data on customer behaviour, engagement levels and store London Journal of Research in Computer Science and Technology28 | | © 2023 Great] Britain Journals Press Volume 23 Issue 3 ??? Compilation 1.0

The Importance of Website Usability in Digital Marketing: A Review visits, allowing businesses to make informed marketing decisions. In today's world, integrating Google Maps into the user's website is essential for business that wants to remain competitive and succeed in their respective industries.

Google Maps has the potential to direct more traffic to the user's website which is a desirable outcome for any business. Moreover, it can amplify the impact of customer reviews, functioning as a digital form of word-of-mouth marketing that can reach a wider audience. Optimising Google Maps for voice search can be a wise move as it enables potential customers to find the business easily by simply asking Google instead of typing in a search query [11].

Creating a Google business profile can significantly improve user's local search engine rankings, increase lead generation and attract potential customers. With this profile user's business will be visible on all Google products and services including search, maps and YouTube. By optimising the profile with photos detailed descriptions of the products, services, customer reviews, contact details and operating hours user can showcase their unique offerings and stand out from their competitors. Moreover, tracking metrics such as impressions, clicks and views can help them better understand their online presence and make informed decisions to improve their marketing strategy and product offerings.

16 Conversational Marketing with Chatbots

Many business owners are apprehensive about utilising chatbots to improve their operations. It might be uncomfortable to rely on robots to complete duties that were previously performed by humans; chatbots on the other hand are not intended to replace humans rather they are intended to simplify the human work. User can revolutionise their company's digital marketing techniques by adopting chatbots. These AI solutions are designed to respond to incoming communications in real time former giving standard or customised answers and even responding to new information through machine learning. They can be sent via a variety of sources including websites, SMS and social media platforms such as Twitter and Facebook. Although chatbots have only recently acquired mainstream appeal their uses are fast developing. Chatbots may help user's sell things by engaging visitors and generating sales [3].

If the user is still unsure about incorporating them into their marketing strategy, here are some tips to consider when adding them into their marketing approach:

- ? Communicate with website visitors in a conversational tone to address frequently requested questions.
- ? Qualify leads by asking questions in the chatbot to establish a customer's position in the sales funnel.
- ? Organise the team to manage its marketing program through continual communication by utilising chatbots.
- ? Conduct research using chatbots which can give important information about the target population.

209 ? Personalise the user experience by asking a series of questions or using already collected data from the past
210 encounters [5].

211 **17 IV. ADAPTIVE WEB DESIGN**

212 **18 Adoption of Device-Independent Web Design**

213 The shift from desktop computers to mobile devices like smartphones and tablets has been a growing trend and
214 with the introduction of more devices this trend is likely to continue. This means that web developers need
215 to make sure that their websites are adaptable to different devices and not just limited to one. Additionally,
216 since many of these devices rely on wireless connections, website performance is crucial to provide users with the
217 seamless experience.

218 Responsive web design is a technique that allows web developers to design and develop web pages that
219 can adjust to different devices using flexible grid layouts, images, media and media queries. By incorporating
220 performance techniques along with responsive web design, websites can improve their loading speed and overall
221 user experience. These factors together can have a significant impact on website's success.

222 **19 Upsides of Responsive Web Design**

223 Responsive web design has numerous benefits. One of the main advantages is that it is content-focused and allows
224 web pages to be independent of any device. This approach is cost-effective and easier to maintain in the long
225 run, providing a better and more consistent user experience.

226 Compared to fixed web pages, responsive web designs use single URL and the same HTML, making it simpler
227 to change the content. Sharing the web pages URL on social networks is also more user-friendly since the link
228 takes users to the right version of the page, regardless of the device they use. Responsive web design maintains
229 flexibility and enhances the user experience, insuring consistency across different devices.

230 With increasing number of devices and platforms for web browsing, adopting responsive web design can attract
231 more loyal customers, improve the company's market share. Additionally, Google recommends using responsive
232 web design as a best practice for the industry.

233 **20 Constraints of Responsive Web Design**

234 Responsive web design comes with some limitations that should be taken into account. One of the main
235 disadvantages is that creating a responsive website requires more time and resources, making it up to 10 to 20%
236 more expensive than a regular website. In addition, older web browsers in mobile devices may not support the
237 latest HTML and CSS techniques used in responsive design, which may cause compatibility issues. Another issue
238 is that responsive design can make it harder to place advertisements on the web page, which can be a problem for
239 websites relying mostly on advertising revenue. However, despite these limitations, the benefits of responsive web
240 design still make it a valuable investment for most organisations. Responsive design provides improved results
241 in long term savings and the minimalist design can enhance the user experience by making the website more
242 accessible on all devices. While there are some unsolvable problems with the responsive design such as responsive
243 images there have been attempts to find solutions and establish web standards through organizations. Overall,
244 responsive web design is necessary adaptation for the modern web and its benefits outweigh the challenges [12].

245 **21 V. SEO AND ONLINE CUSTOMER BEHAVIOUR**

246 **22 Effects of Voice Search on SEO Strategies**

247 Some industry insiders believe that the advent of voice-based search may spell the end of SEO as we know
248 it. The influence of voice-based search and digital marketing in strategies is apparent whether favourable or
249 negative. One reason for its shift in approaches is that the voice in tech searches is fundamentally different.

250 Conversational languages used in voice searches is essential. Because conversational language is the foundation
251 of voice-based, search material must be more natural sounding and answer inquiries quickly and accurately in
252 order to rank for highly snippets [9]. It is critical to provide useful and authoritative content that Google picks
253 to achieve this coveted place. Simply repeating terms without context is no longer sufficient. If the content is
254 well created, it may be used to market a company [6].

255 **23 Leveraging Google Maps to enhance Local SEO**

256 If user wants to increase their local SEO, Google Maps could be a game changer Google Maps may help them
257 enhance their exposure in search engine results by offering accurate information about the user's business such
258 as its location, contact information and directions. User can improve their local SEO and bring more visitors to
259 the business by using Google Maps. They can help the user increase their visibility in search engine results by
260 integrating maps into their website and optimising their listings to attract more customers. Using these tactics,
261 user can boost their local SEO and drive more traffic to the business. Integration of Google Maps into the website
262 can benefit SEO by providing higher quality localised content and detailed directions which can lead to increased
263 organic traffic. Optimising Google Maps listing helps improve local SEO leading to a better search ranking for

264 the website and optimised Google Maps listing can create a strong social media presence for foster relationships
265 with potential customers [10].

266 24 VI. CONCLUSION

267 In conclusion, website usability plays a crucial role in digital marketing. A website that is easy to use, navigable,
268 and provides a good user experience is more likely to attract and retain visitors. This can lead to increased
269 engagement, improved conversion rates, and ultimately, higher revenue for businesses. Additionally, usability can
270 also contribute to search engine optimization (SEO) efforts, as search engines like Google prioritize websites that
271 are user-friendly and provide a positive experience for their users.

272 Therefore, businesses should prioritize usability when designing and optimizing their websites to ensure they
273 provide the best possible experience for their users and to achieve their marketing goals [13].

274 Looking to the future, the importance of website usability in digital marketing is likely to continue to grow.
275 With the increasing use of mobile devices and the shift towards voice search, businesses will need to focus even
276 more on creating websites that are optimized for these platforms. In the future, it will be important for businesses
277 to ensure that their websites are optimized for all devices and provide a user experience that is consistent and
278 smooth across different platforms.

279 Additionally, advances in technology such as virtual and augmented reality may also impact website usability
280 in the future. Websites that incorporate these technologies will need to ensure they are intuitive and easy to use
281 to provide a positive user experience.

282 Finally, as the digital landscape continues to evolve, businesses will need to stay up-to-date with the latest
283 trends and technologies to remain competitive. This will require ongoing testing and optimization of website
284 usability to ensure it continues to meet the needs and expectations of users.

285 Overall, the future scope for the importance of website usability in digital marketing is vast, and businesses
that prioritize usability will be better positioned to succeed in the digital world.

2.2 Backend Design Strategies

2.2.1 PHP (Hypertext Preprocessor)

Typically, dynamic content is generated on the server before being delivered to the client's web browser allowing for dynamic content development based on users input or database queries.

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Figure 1:

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Figure 2:

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