

Impact of Web 2.0 Technology on Students Learning: The Case of Telegram Messenger

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ANNOTATION: This research paper deals on the impact of telegram messenger application as a Web 2.0 tool and as it affects education and students learning. It described Web 2.0 technologies as improved technology and not just a specific version of web which is characterized specifically as a transition from Static Web pages to highly dynamic Web pages or user-generated content. It talked about Web 2.0 technologies and education, stating that it enhances teaching and collaboration amongst teachers and students. It also gave the overview of the Telegram Messenger app and its use in school and the discussion was based on the uses and gratification theory of Jay Blumler and Elihu Katz's (1974). It recommended that there should be more articles published on the use of Telegram messenger at home, workplace and on teenagers.

KEYWORD: Web.2, Technology, Students Learning, Telegram Messenger App.

Introduction

Web 2.0 technologies are the term used to describe a variety of web sites and applications that allow anyone to create and share information or materials they have created online. It is the revolution in the computer industry caused by the move to the internet as a platform, and the attempt by individuals to understand the rules for success on this new platform. (O'Reilly, 2019). It is an improved version of the first worldwide web (Web 1.0), and it is characterized specifically by the change from static to dynamic or user-generated content and also the introduction and growth of social media. Therefore, the concept behind Web 2.0 technology refer to the rich web applications, web-oriented architecture, and social websites, It is the changes in the ways web pages are designed and used by the users, without changes in any technical specifications. (WordPress, 2018). The most common of these technologies are blogs, wikis and social media which are collectively referred to as Web 2.0 platforms. Web 2.0 platforms bring a shift from the passive experience of static 'read-only' web pages to the participatory experience of dynamic and interactive web pages. (Hossain and Quinn 2012). They are about revolutionizing the way of creating, editing, and sharing user generated content online.

The major elements of these technologies are that they allow people to create, share, collaborate and communicate. According to Hossain, (2012), they are different from other types of websites because they do not require any web design or publishing skills to participate. This makes it easy for people to create and publish or communicate their work to the world, creating sharing and collaboration opportunities to people as they express themselves online. Major features of Web 2.0 include social networking websites, self-publishing platforms e.g., WordPress, Wikipedia and social bookmarking (Study.com 2016).

Baker, Wentz, & Woods, (2010), described them as internet tools that allow people to go beyond just receiving information through the web because users are expected to interact with people and to create content with others. Examples of these web 2.0 technologies are social media sites such as Facebook, Twitter, Instagram, Whatsapp, Wechat, LinkedIn, Myspace, Wikis and Telegram etc. The nature of these technologies makes it an easy and popular way to communicate information to either a selected group of people or to a much wider group of people. It changed the idea of users being passive in consumption and delivery of content, and has made them become actively participating in creation, sharing, and collaborating with others.

Hossain, Mokter, Quinn, & Robert mentioned that the web 2.0 technologies are found in Social Networking websites, enabling people communicate via text, voice, chat, instant messages, video-conferencing etc. Uploading photos, sending videos and sharing voice messages while on the go are all possible now using social networking in conjunction with mobile devices. They continued to explain that Social Networking allows an individual to:

1. Create a profile for themselves on the service and share that profile with other users with similar interests.
2. Create a Social Network: Users can choose to have public profiles which can be viewed by anyone or private profiles which can only be viewed by people that the users allow.
3. Users can usually post photographs, music and videos on their site services.

Web 2.0 Technologies and Education

Greenhow and Lewin (2016) observed that Web 2.0 technology tools can be used to enhance teaching and collaboration among teachers and students and can also increase professional collaboration between educators. Learning institutions can make use of these tools to communicate with students, staffs and the wider academic community. Ansari, & Khan (2019), added that interactivity with teachers, peers, and online knowledge sharing has impacted significantly on students' engagement which has consequently impacted significantly on students' academic performance. Use of online social media for collaborative learning facilitates students to be more creative, dynamic and research-oriented. This is purely another domain of knowledge.

Nasta, (2017) opined that Social Media has become an invaluable tool in the field of education because it is the easiest way for students to share and get instant quick information, reviews & solutions to their problems. The use of social media in education helps students, teachers and parents to get more useful information, to connect with learning groups and other educational systems that make education convenient. Students can benefit from online courses and tutorials through social media platforms like YouTube, Skype, Zoom, IMO, Telegram or a variety of others and a wide array of resources that are shared through social networks. (Raut, and Patil 2016).

Valerio and Valenzuela (2013) commented that Schools now have the ability to connect with students through social media networks and channels. These channels can be used to communicate campus news, make announcements and provide students with useful information. This form of communication builds engagement between the institution and students which help tackle many student issues through the group interactions. Adil (2022) observed that through social mediums such as YouTube, Facebook, Whatsapp or Telegram live videos, the engagements between students and the institution can be sustained. Principals or administrators can now share school news via social media networks, hold an online meeting with the parents or even starting fundraising for different projects using such mediums like Zoom and Skype. Social media can also help broaden students and teachers perspective on various subjects and give them illuminating, instant content that is new. They have the opportunity of engaging experts to get answers on topics that they need help in. (Baker, Wentz, & Woods, 2010).

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Willbold (2019) commented that it can help students compile and produce useful content and data for research. Whether they are working on an assignment, on a project or trying to gain more insight on a subject, some of the best information and results can be extracted from social media as it is one of the best platforms to extract data. Students can find out how the majority of people feel about a particular topic by creating Polls on social media platforms or conduct a survey using Google Forms or Survey, or how experts perceive and advice on specific issues by using forums like Quora. West (2021) reiterated that teachers also use social media as a medium to get new resources to support their lessons, activities to teach particular concepts, bulletin board ideas, information on new apps to do a follow up of certain topics as well as to network and know what is happening in schools all over the world.

According to Program Studi Akuntansi University of Indonesia (2020), the bottom line is that social media has become a big part of our daily living and it has become impossible to keep it away from the education process. Schools, colleges and university staff make use of web 2.0 technology for students and parents' communication. Lee (2020) stated that the benefits of social media in education are obvious, starting with healthier parent-teacher relationships and all the way to permanently changing the way the students now learn. It is also an effective way to communicate and interact with students and research colleagues. With the changing trend in technology, Web 2.0 has come up with an aim for enhancing creativity, increase collaboration, and has improved web 1.0 in terms of functionalities, and secure information sharing (Austin, 2012).

Theoretical Perspective

The Uses and Gratification Theory according to Popov (2019) is all about the effects of media on people. The theory is credited to Jay Blumler and Elihu Katz's work in 1974. It showcased how people use the media for their need and how they get satisfaction when their needs are met. In other words, it has a user/audience-centered approach. It can be said that the theory argues more on what people do with media rather than what media does to people. Blumler and Katz's Uses and Gratification Theory suggests that users have choices to the media that satisfies their need and those media users play an active role in choosing and using any media they like, in other words, a media user seeks out a media source that best fulfills the needs of the user. (Vinney, 2019).

The assumptions of Uses and Gratifications Theory rely on two principles about media users:

- It characterizes media users as active in their selection of the media they consume.
- People do not use media passively.
- They are engaged and motivated in their media selections.
- People are aware of their reasons for selecting different media options.
- They rely on the knowledge of their motivations to make media choices that will help them meet their specific wants and needs. (Luo, 2002).

On the basis of those principles, uses and gratifications go on to outline five assumptions:

- Media use is goal-directed. People are motivated to consume media.
- Media is selected based on the expectation that it will satisfy specific needs and desires.
- Media influence on behavior is filtered through social and psychological factors. Thus, personality and social context impact the media choices one makes and one's interpretation of media messages.

- Media are in competition with other forms of communication for an individual's attention. For example, an individual may choose to have an in-person conversation about an issue instead of watching a documentary about the issue.
- People are usually in control of media and therefore are not particularly influenced by it. (Blumler, & Katz, 1974).

Taken together, Uses and Gratifications Theory emphasizes on the power of the individual over the choice of media and also on the fact that individual differences mediate the relationship between media and their effects on people. These results in media effects are driven as much by the media user as by the media content itself. (Businessstopia <https://www.businessstopia.net> 2020).

Uses and Gratifications Theory takes a more humanistic approach to looking at media use. Blumler and Katz believe that there is not merely one way that the populace uses media. Instead, they believe there are as many reasons for using the media, as there are media users. According to the theory, media consumers have a free will to decide how they will use the media and how it will affect them. Blumler and Katz values are clearly seen by the fact that they believe that media consumers can choose the influence media has on them as well as the idea that users choose media alternatives merely as a means to an end. Uses and Gratification is the optimist's view of the media. The theory takes out the possibility that the media can have an unconscious influence over our lives and how we view the world. The idea that we simply use the media to satisfy a given need does not seem to fully recognize the power of the media in today's society. This paper adopts the Uses and Gratification Theory because it applies to the use of Telegram messaging app as a social media platform.

Overview of Telegram

Telegram is a cross-platform messaging service with enhanced encryption and privacy. Telegram was founded by Russian social media entrepreneur, Pavel Durov, and the service is free to use. Telegram is a freeware, cross-platform, cloud-based instant messaging (IM) service. The service also provides end-to-end encrypted video calling, file sharing and several other features. It was launched for iOS on 14 August 2013 and Android in October 2013. It is a messaging app that is widely used, it has no ties to other social media platforms (Facebook Messenger and WhatsApp for example), which makes the service more appealing to some. It also offers some enhanced privacy and encryption features as well as support for large group chat features. It is a multiplatform app, with versions available for iOS, Android, Windows, Mac, and Linux. Another innovative new feature created by Telegram is its self-installed bots, this facilitates app attributes like sending relevant information about the weather or useful news articles to users. Users can also set personalized scheduling reminders, play music, create to-do lists, and send secret chat messages. This provides an 'assistant-sequel approach to cloud-platform communication. One can also access the Telegram from a web browser. Most messages feature client-to-server encryption, but Secret Chat messages have end-to-end encryption. Telegram also has the ability to connect its users via group chats.

Those who use Telegram join a group chat in two ways:

- One is by clicking on a link.
- The other is by seeking out and joining a specific group.

To join via an invite link, the user must have an existing Telegram account (available directly from the app itself or on a desktop program. Users can send text and voice messages, make voice and video calls, and share an unlimited number of images, documents up to 2 GB per file, user locations, animated stickers, contacts, and audio files. Telegram's default messages are cloudbased and can be accessed on any of the user's connected devices. Messages in all chats, including groups and channels, can be set to auto-delete after 24 hours, 7 days or a month, although this will only apply to messages sent after the auto-delete timer is

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enabled. Telegram offers drafts which sync across user devices, such as when a user starts typing a message on one device and can later continue on another. The draft will persist in the editing area on any device until it is sent or removed. All chats, including groups and channels, can be sorted into custom folders set by the user.

The Useful Telegram Features You Should Use

The Telegram software has several advantages and features including:

- It is a free program.
- It can be used on various operating systems (Android, iOS, Windows Phone, Windows NT, Linux, macOS, Web application).
- It can be used through mobile devices and desktops and you can open it through different web browsers.
- Downloading requires a small space.
- All types of media files can be sent to different parts of the world using Telegram.
- High-security rate within the program compared to other programs through a high encryption system.
- You can use multiple Telegram accounts in one device and multiple profile pictures on one account.
- Possibility of preparing groups for common interests.
- It has a special (self-destruct) messages in secret conversations.
- You can modify and delete messages easily.
- Many more features are found in Telegram Messenger such as Telegram Bots, Auto Night Mode, Mute Contacts and Groups, Customize Your Telegram, etc.

Use of Telegram in School

Despite the challenge to the relationship between students (digital natives) and teachers (digital immigrants) that Web 2.0 tools present, teachers are still the vital link to supporting students and giving meaning to their and practices they engage in, including developing in the students, critical thinking, collaborative skill and being innovative in this present information age. Without a comprehensive strategy to include Web 2.0 tools and social media practices within our schools, powerful new skills that students acquire using web 2.0 tools will be neither harnessed, nor developed.

Telegram is an app that is easily downloaded to our computer, Android and smart phones. It allows you to communicate via text and voice messages and also allow all participants to be media producers and media owners. Telegram could be used in the classroom for group discussion too; this can be done by setting up an online group discussion in a single classroom to maximize the learning process. Providing a Telegram group discussion with its interesting and appropriate context for students, it is possible makes students curious and helps keep them attentive through the discussion (Sari, 2019).

The students constantly interact with each other, and spend much of their time texting, using a variety of free apps, such as WhatsApp, Telegram, Snapchat, Facebook, Slack, and others. Thus, use of telegram web 2.0 technology tools need not be an obstacle to learning; in fact, the features of the app can be powerful tools to help students improve their communications skills, and take greater control of their own learning by collaborating with others. Telegram is a great app for online accent-training programmes, because it is user-friendly, and students can easily record their assignments just by clicking the mic button and speaking into the microphone on their phone. Telegram is particularly useful outside the online classroom to encourage additional practice and skills development. Chats help students become autonomous learners as they begin

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noticing their own mistakes and correct themselves. Voice messaging is also a feature of telegram app that can be leveraged on by educators to help students improve their speaking and pronunciation skills.

Conclusion

The use of social media in the education sector has made learning a fun experience. Students are learning and adapting to the world using a relatively new form of communication which is faster, time-saving & more effective. There is great potential that social media will revolutionize education in the world. The Telegram messaging app help create opportunities for students to be heard and to discover their own voice, they become more and more motivated, and also take greater control of their own learning as they make more demands on themselves. Teachers can communicate with some students individually, or create group chats so students can interact with one another, and to encourage students to listen to each other and give feedback on their assignments.

Recommendation

In the course of this paper, it has been found that there are very few write-ups on the use of Telegram App by both teachers and students; it is therefore recommended that there should be more investigations on the use of Telegram app at:

- Home
- Workplace
- And on the teenagers

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