



# **The Use of Custom URL for E-Messages, Tweets and Posts against E-Social Platforms Based on Time Complexity Retardation**

**Vivek Uprit<sup>1\*</sup>**

<sup>1</sup>*Institute of Computer Application, SAGE University, Indore, India.*

## **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

## **Article Information**

DOI: 10.9734/AJRCOS/2021/v9i330223

### Editor(s):

(1) Dr. Stephen Mugisha Akandwanaho, University of KwaZulu-Natal, South Africa.

### Reviewers:

(1) Milad Farzin, Sari Branch of Islamic Azad University, Iran.

(2) Rodrigo Monteiro da Silva, Universidade de Maringá, Brazil.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/67612>

**Original Research Article**

**Received 05 March 2021**

**Accepted 11 May 2021**

**Published 07 June 2021**

## **ABSTRACT**

On the leaning of the widespread adaptation of web services such as social networking sites (like Twitter, Facebook, LinkedIn, YouTube, WhatsApp, Instagram, Pinterest, etc.) and E-mail have become regular work. We approach these sites to gather or share information worldwide in the form of messages (like tweets, posts, blogs, etc.) and also in other formats such as pictures, audio, and video. In the modern era of Technology where the audience is widely connected with e-platform, these social networking sites are also used to organize e-campaign to favor or counteraction in different contention such as political review, social issue, environmental dispute, worldwide controversy, trolling etc. using the method of Folksonomy [1]. We are participating in such trolling, controversy, and campaign or expedition by using posting a message, tweet, micro-blog, etc. In particular, to join all we are doing is post a tweet or micro-blog that has the precise word or phrase because it appears within the Trends list, like a hashtag. But the trending keywords changed in the short-term and any hashtag gets popularity worldwide shortly. We demonstrate the custom-URL to join e-campaign which is wrapped in shortened-URL for easy to understand and gets excessive results to trend any Tag or Hashtag in a span of time. We improve the results for the community, groups and as well as for the individual audience to gets the best consequence for trending keywords.

<sup>\*</sup>Corresponding author: E-mail: [vivekuprit@gmail.com](mailto:vivekuprit@gmail.com), [drvivek.uprit@sageuniversity.in](mailto:drvivek.uprit@sageuniversity.in);

**Keywords:** *Folksonomy; hashtag; custom URL; shortened URL; vanish URL.*

## 1. INTRODUCTION

In the era of technology, the Internet growing day by day. The Internet has seen massive propagation of web services, including blogging pages, social media sites, e-commerce sites, video sharing sites, customer review sites and much more. This gets hundreds of millions of viewers every day. Roughly 4.66 billion people around the world now use the internet – that's close to 60 percent of the world's total population [1]. Globally, internet user numbers are growing at an annual rate of more than 7 percent, but year-on-year growth is much higher in many developing economies [1]. Beside this, Social media sites get more traffic as compare to any other internet website category. More than one half of all the people on Earth now use social networking sites such as Facebook, Instagram, Tweeter, LinkedIn, YouTube, Pinterest, etc. The latest data show that 4.14 billion people across the planet are using social media in October 2020, equating to 53 percent of the total global population [2]. Social networking sites growth may even be accelerating exponentially. The world spends more than 10 billion hours using social platforms each day, which is the equivalent of more than 1 million years of human existence [2]. Based on publicly available data up to 19 October 2020, trending social media platforms have 300 million or more monthly active users [3]. Internet is a massive power and new technology which spread really quickly around the world, within the network people can communicate, find answers, got information, socialize, entertainment and much more. It's a new technology which will change and determines the shape of our society [4]. Due to this powerful network, it is quite convenient to raise our voice or petition on social media platforms all over the world. It is famous as a digital weapon and our today's generation is well aware of how to use it. According to latest data, there are 500 million tweets send per day on Twitter platform [5], 350 million posts upload per day on Facebook platform [6] and 2 million posts, articles, and videos are published on LinkedIn platform every day [7]. With this, a large number of social media platforms also gain popularity, and it is not possible to cite all reports regarding every social media platform. In this, thousands of messages, tweets, posts, micro-blogs, photos, audio and videos are published daily on social networking sites related to e-campaigns. Before starting a campaign, have in place all of the tools

for tracking metrics [8]. There are several free social media marketing apps which track shares, retweets, likes and keywords associated with your brand. Services such as Hootsuite, Social Mention, and Addictomatic integrate with your social media accounts to determine who is seeing your social media posts and how they're responding [8].

Once a baseline is established, define goals and schedule a definitive timeline for the campaign. Having firm start and end dates is important, both for a) keeping costs and mission creep in check, and b) comparing performance pre-and-post campaign [8]. Here's the main part of the campaign is to unite social media users to bring attention to a particular post or targeted post. There are several ways to get the attention of the audience, but motivating to publish posts or send tweets for the same issue or campaign is a difficult task using the folksonomy method. The audience attention varies personality to personality. This is a major issue, where crowds of audiences only work on or support fame themes. This is happening because of unawareness of current scenario or subject. Most crowds will work on a topic or subject only when they find a straightforward way to define their point properly without any contradiction. The public or crowd shows their consent at the same time when the movement or campaign takes a huge form or has been stepped up by a person of reput / fame. The way private or public campaigns are promoted around the world, many types of software technology have to be used and the public is attracted by these means. Social media platforms keep many of the technology they create open-source, used by other software companies, which are either free or paid which the average person can comfortably operate without any training. We are likewise working on making any campaign more effective in implementing the open-source technology of social networking sites. Using which a small organization, group or individual will be able to connect any type of campaign directly with the public and register their response in the form of post or tweet with relevant hashtag. The custom-URL technique (which is based on the URL's GET method) has been used to encrypt content with shortened-URLs. This technique enhanced the time complexity retardation against e-social platform using role of custom URL for e-messages, tweets and posts. Here is a block diagram to understand

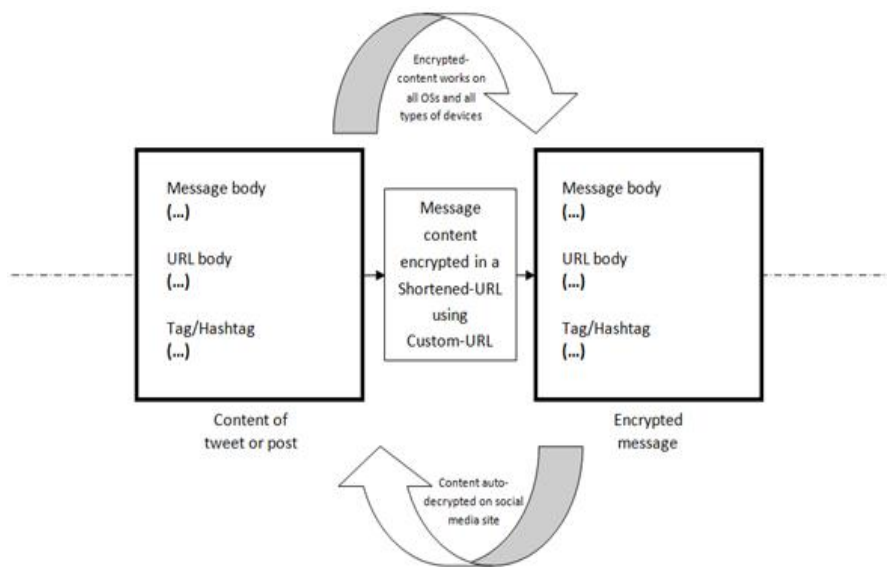
how message encrypted or decrypted on social networking sites using default open-source technique with some enhancement to reduce complexity as for end-users.

This technique works on most social networking sites which are daily used by the whole world such as Twitter, Facebook, LinkedIn, Pinterest, E-mail, etc. It increases the number of messages, tweets or posts in a limited time which is relevant to unique Tag/Hashtag. It is redundant the time complexity to type a specific message, tweet or post with targeted tag/hashtag. Also increase the enrichments and popularity of tag/hashtag in the trending list. Here the untouched campaign which is ignored by the public also works impactfully. These procedures are commonly implemented in websites for contact or page promotion, which are linked as custom URLs. But the purpose of this technique is to make it useful to popularize a tag/hashtag. By which any content has to be used more effectively in a short time by adding a tweet or post with a hashtag. Which will be effective in increasing the popularity of any hashtag by 10x. In this process it will also be possible to make run-time changes, using which changes are possible at any moment. Custom-URL technique is used only at the end of web-development to link the website with social media accounts, to promote pages and for contacting end-users with the management team with a default message. The custom-URL link technology is adopted in most social media technology platforms such as Twitter, Facebook, LinkedIn, WhatsApp,

Pinterest, etc. Section II holds the brief about the study, behind our study and section III where methodology by which implementation has been done, is discussed. Section IV is the place where the results and the outputs are taken place. The last section V deals with the conclusion.

## 2. MOTIVATION

Current studies have focused only on detecting URL spam and have primarily revolved around blacklists and domain reputation. Most of the research associated with short URLs has talked about the explanations associated with spamming [9]. After studying this subject, it had been discovered that this technology may be utilized in a really precise way to increase the traffic for the consumers, which might become a straightforward medium for the consumers around the world. However, when the study started, this method was seen to be utilized in many ways such as adding a social media account to a website, linking to URLs in business content, use of payment options, for referral process by many applications. This authentic study showed the proper aspect of this method, which we are able to easily use. Many business websites which are providing search engine optimization related services are using short URL technology only. During this research, you have got to use this method better by combining both the custom URL and also the short URL technique. Which might become a brand-new alternative to a hunt engine optimized technology for today's technological world.



**Fig. 1. Function of methodology**

### 3. RELATED WORK

Our work finds similarities to three main lines of work: (a) use of custom URL on social network, (b) increasing traffic on social networks via short URL and (c) service providers related to social media tools.

- a) Share links are specially created links for various social media networks that allow instant sharing without having to repeat and paste links manually, making it possible for your visitors to easily share your website content. You have surely seen the “share” icons below blog posts on websites or noticed the “share” button on Facebook posts or on Twitter posts and on many others social networking sites which allow sharing data. Sharing content online – whether it's an amazing blog post, a YouTube video or a startling news story – should be simple or people just aren't visiting eff. Custom URL is a open source technique, which is easy to use by understanding of URL syntax or pattern. Custom URL is provided by e-networking sites in the form of API which is based on GET method. This helps to integrate user messages into a link.
- b) The short URLs have increased in popularity over the past few years due to micro-blogging platforms such as Twitter, where message area is restricted by a hundred and forty characters. Antoniadou [10] has recently expressed this emerging phenomenon and presented a characterization of short URLs. Short URLs are useful for many reasons, which are specifically an option to convert extended URLs into a short URL. When a page, post or blog is linked through short URLs, anyone can view it through short URLs and monitor the progress of URL. Many internet developers pass descriptive attributes within the uniform resource locator to represent information hierarchies, command structures, dealing methods or session data. This may end in URLs that area unit many characters long which contain complicated character patterns. Such URLs area unit difficult to memorize, sort out or distribute. As a result, long URLs should be copied and pasted for reliableness.
- c) Various types of technical support for social media are established in the market by third party applications and websites.

The aim of which is to make social media services easy and give it to the end user. In which support is available for most of the platforms, and the main task of all is to make the technology easy through different types of software. In this technology, by adding various services and making them better, they are given to the customers, which are available in software in free or paid versions.

### 4. METHODOLOGY

#### 4.1 Terminology

##### 4.1.1 URL

URL is one of the major (or key) concepts of the Web in the term of Hypertext and HTTP communication protocol. It is the mechanism utilized by browsers to retrieve any published resource on the Internet [11]. A URL is nothing more than the address of a given unique resource or address on the Internet. In theory, each valid Uniform Resource Locator (URL) points to a unique resource or address. Such resources can be a page, a document, an image, etc.

##### 4.1.2 Custom URL

Custom URLs are URLs developed or designed by e-social platforms, created for Twitter, Facebook, WhatsApp and other applications or platforms for customers' message, post, tweet and page. These are used either for share information of page (or page link) or to be used as a default text message to transmit and receive the message.

##### 4.1.3 Short URL

URL shortening is that the process of translation of an extended Uniform Resource locator (URL) into an abbreviated alternative URL (which is Shortened URL or Short URL) that redirects to the longer URL.

##### 4.1.4 Vanity URL

A vanity URL address is a descriptive, unforgettable and pronounceable address usually used to redirect URLs from one location to a different location (or redirect from one address to another address). Within the simplest terms, a vanity URL address is a long URL address that has been converted into a custom-

made short link (or short URL address). A vanity URL address can also be referred to as a branded address or a customized short URL address.

#### 4.1.5 Folksonomy

Folksonomy is an arrangement or a classification system in which social media user apply public tags (or hashtags) to online content which is related to message, post, tweet and micro-blog, generally to form those content easier for themselves or others to seek out later.

#### 4.1.6 Hashtag/Tag

A hash tag is a metadata tag. It is represented by hash symbol, #. Hashtags are widely used on message, tweet, post, micro blogging and photo-video sharing services such as Twitter, Facebook, Instagram and other e-social platform as a form of user generated tagging that enables cross-referencing of content sharing a theme or subject.

#### 4.1.7 Mechanism

This mechanism works on most of the social networking sites and messaging application.

Custom-URL specially designed for connect or link social networking page with website. This is the direct way to display social media page, post, blog using custom link or URL to like and share content. This custom URL service also offers to send pre-default message over social networking sites. The block diagram below is for understanding the format of pre-designed default message or direct message feature which is wrapped in short-URL to send direct message, upload post and for tweet. This feature saves the time to writing a message and proceeds directly to the sending message option with default text.

## 4.2 Implementation

This specific technique is used to pre-set the default text in the message boxes of various social networking sites. This technique is typically used to upload the default message for inquiries, tweets related to content and upload customized posts by other users. Our aim is to use this technique for change the ratio of joining social media user in any specific campaign and petition which is only possible by increment the related tag/hashtag. This technique is used to increase the proportion of inclusion of social media user in a specific campaign and petition which is possible only by increasing the

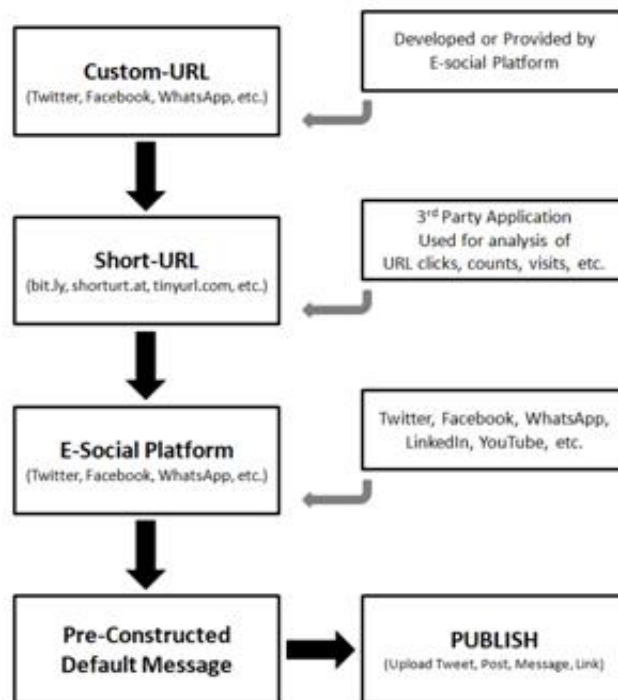
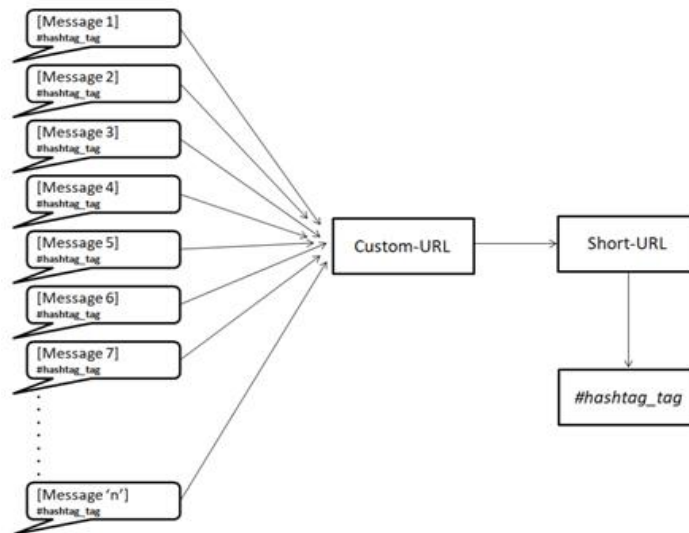


Fig. 2. Mechanism of publishing tweet, post using short-URL

corresponding tag / hashtag. We have found in research that when a campaign or petition has to be filed on an online platform, Twitter is used predominantly. Apart from this, platforms like Facebook, YouTube, Instagram, etc. have been used from time to time. Keeping in mind the global usage of Twitter, whether to promote the campaign or register a petition, this research has been done by keeping the twitter at the center. In which the growth rate of any campaign is detected using the folksonomy classification. When a campaign or petition is to be entered, we have to present our side through a tweet, in which the tweet is attached to the hashtag using a suitable tag. When many tweets use the relevant hashtag, the count of similar hashtags is recorded through folksonomy classification and if

these counts exceed the count of other hashtags, they begin to show on the trending list. This trending hashtag process is made accessible to more people with the help of various platforms, and motivates the users to also enter their feedback with the hashtag. But most users do not go to the Twitter to register their response and those who go are unable to tweet much related to that hashtag. This can be made much easier by changing the custom URL to short URL (Fig. 3).

In this process, custom URLs can be used to replace with the help of short URLs, and more people can activate their response in a specific time, and their response can be recorded (Fig. 4).



**Fig. 3. Implementation of function to increase enrichments**



**Fig. 4. Custom-URL and short-URL default message**

Here in the block diagram, the custom-URL contains the message for the tweet along with the target URL and hashtags that are pre-written in the tweet input post box for the direct message or direct tweet. Here in the block diagram, the custom-URL contains the message for the tweet along with the target URL and hashtags that are pre-written in the tweet input post box for the direct message or direct tweet. But the size of the custom-URL is not inherently appropriate (it is fine to use only in the anchor tag in the website), so the custom-URL has been simplified by changing it to short-URL.

#### 4.3 Platform Dependency

Social networking sites are the category of website and application; it is used from any device such as computer, laptop, tablet and smart phone. Custom-URL and Short-URL allow running on any device or operating system with accuracy. No any barriers to use of

custom-URL and Short-URL for social networking sites.

### 5. RESULTS AND DISCUSSION

In the process-oriented research paper, an attempt has been made to reduce the complexity of time, with the results being very positive. Aim to convert open-source social networking custom-URLs into short-URLs to generate maximum response to campaigns or petitions. When a hashtag has to be brought to the trending list, the first attempt is to record more responses to the appropriate hashtag in the shortest possible time. To accomplish this, users create multiple tweets with related hashtags in related content that are recorded on the platform through folksonomy classification and if multiple responses are recorded by the same hashtag. So the software system adds that keyword to the trending hashtag list. The analysis is shown in the following graphs:

- (a) The graphical representation of expected hits per URL as a task of the URLs published per user

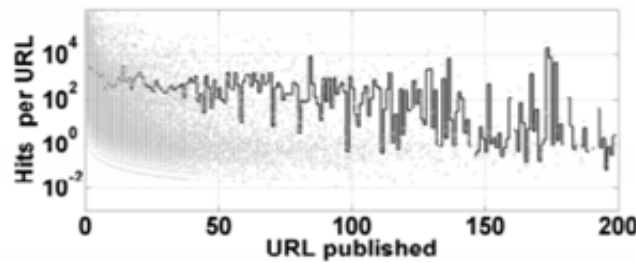


Fig. 5. Expected hits as a task of URL published per user

- (b) Daily hits over the total clicks versus the lifetime of the URL

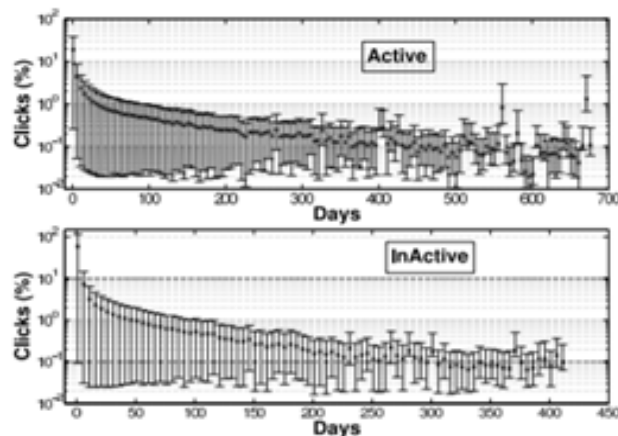
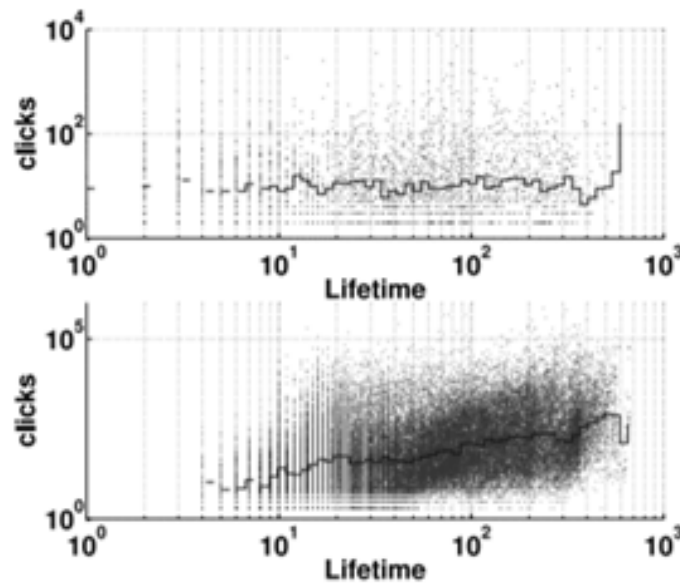
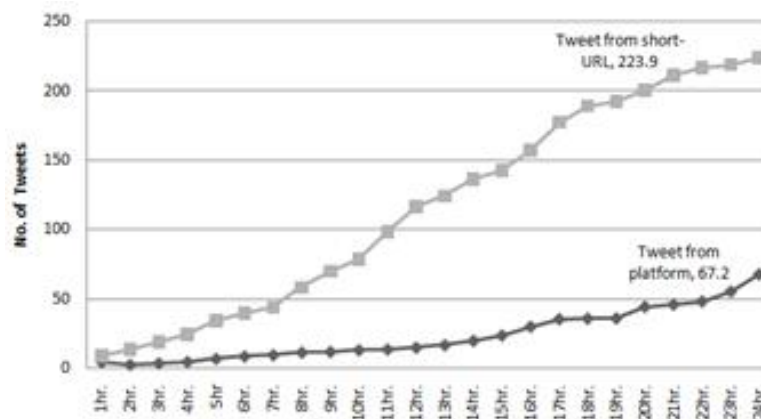


Fig. 6. Daily hits over the total clicks versus the lifetime of the URL

**(c) Lifetime of a short URL versus number of hits****Fig. 7. Lifetime of a short versus number of hits****(d) Time complexity retardation against number of tweets updated directly from platform versus via short-URL****Fig. 8. Time complexity retardation against number of tweets updated directly from platform versus via short-URL**

Tweeting multiple times of a user through short-URL method is a simple task as it provides default messages, making it easy to tweet different contents of a similar hashtag using the hashtag with the appropriate message that will effectively display the goal of the campaign or petition on the platform. In the normal situation, it is difficult to get more tweets which are able to change the situation effectively through short-URL.

**6. CONCLUSION AND FUTURE SCOPE**

In today's time, identifying a campaign on the e-platform is not a big task for an effective person, organization or company, because they are already a well-known personality and at the request of such personality, the entire social media traffic becomes a trend. Many expensive social network services are also hired by them, which with the help of various software, their



campaign aims to make the identity among the society. But doing so much work for a common person is a bit difficult, but not impossible. Many different 3rd party applications and websites are providing free or paid services to increase enrichments. To make this task simpler and more effective, the custom-URL can be changed to short-URL and used in the campaign, the goal will be to execute as many tweets as possible and make the relevant hashtag more popular.

Other than this, short-URL is a type of spamming. A large number of short-URLs are used for phishing, which is also necessary to consider. If the behavior of the short-URL is understood from the security point of view, then it is a bit difficult to trust it.

## COMPETING INTERESTS

Author has declared that no competing interests exist.

## REFERENCES

1. Available: <https://datareportal.com/global-digital-overview#:~:text=There%20are%204.66%20billion%20internet,875%2C000%20new%20users%20each%20day>. (Oct, 2020)
2. Available: <https://datareportal.com/social-media-users> (Oct, 2020)
3. Available: <https://datareportal.com/> (Oct, 2020)
4. Available: <https://www.ukessays.com/essay/s/media/power-of-internet-media-essay.php#:~:text=Internet%20is%20a%20massive%20power,the%20shape%20of%20our%20society>.
5. Available: <https://blog.hootsuite.com/twitter-demographics/>
6. Available: <https://www.socialreport.com/insights/article/360000094166-The-Latest-Facebook-Statistics-2018>
7. Available: <https://www.socialpilot.co/blog/social-media-statistics#linkedin-demographic-stats>
8. Available: <https://www.bigcommerce.com/e-commerce-answers/what-is-a-social-media-campaign/>
9. Available: <https://developers.google.com/safe-browsing/>
10. Antoniadou D, Polakis I, Kontaxis G, Athanasopoulos E, Ioannidis S, Markatos EP, Karagiannis T. Web: the web of short urls, in Proceedings of the International Conference on World Wide Web; 2011.
11. Available: [https://developer.mozilla.org/en-US/docs/Learn/Common\\_questions/What\\_is\\_a\\_URL](https://developer.mozilla.org/en-US/docs/Learn/Common_questions/What_is_a_URL)

© 2021 Uprit; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
The peer review history for this paper can be accessed here:  
<http://www.sdiarticle4.com/review-history/67612>