

The Roles of Web 2.0 Tools in Socio-Economic Development of Individuals and Societies in Developing Countries

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Abstract

Internet technologies have changed the way we share, collaborate and disseminate information. The new era of web tools and technologies known as Web 2.0 has provided a set of tools and technologies such as social networks, blogs and wikis which facilitate people's connectivity, knowledge sharing, and comment posting to the world community. This paper presents findings of a research conducted to determine the impact of these tools on the socio-economic development of the individual and the society. Data were collected through the use of structured questionnaire and interviews. The findings show that many participants used web tools and technologies for business purposes, education and governance, which constitute ways of getting income and skills necessary for the individual and community to function and contribute to the development of society. Web 2.0 was also found to maintain connectivity between family and friends who are separated by a distance. It can, therefore, be concluded that Web 2.0 tools help in the development process and, hence, play a role in the reduction of poverty.

Keywords: Web 1.0, Web 2.0, blogs, wikis, Google hangout, World Wide Web.

1. Introduction

The twenty-first century has been witnessed a proliferation of many Internet technologies that are radically changing the ways we create, share, collaborate on and publish digital information through the Internet. In recent years, changes on how the Web can be used for different purposes to bring about social and economic changes have occurred. It is through these changes that Web 2.0 tools and technologies have evolved and spread around the world and are being used by millions of people (Baltaci-goktalay & Ozdilek, 2010). The word Web

2.0 refers to the second generation of the services and applications available on the World Wide Web (www) that let people share, collaborate and disseminate information, documents and media online. These web services have added interactivity to what we already knew as Web 1.0, the Internet technologies that did not allow the users to interact with the content or the publisher of the content and were unidirectional in nature (read-only). This is contrary to the more user-friendly Web 2.0 technologies, which have been used in many areas to bring about social, economic and political changes. Nugulthama (2012) notes that Web 2.0 tools such as blogs, wikis, Real Simple Syndication (RSS), Google hangout podcasts and social networks such as Facebook, Twitter, LinkedIn, Google+, and Instagram are widely used and have a great impact on the development of societies. The number of social network users in the world was expected to reach 1.8 billion by the end of 2014 (Maro, 2014). This increase is due to the development and increase

Hoegg (2012) has shown that there are many ways in which Web 2.0 technologies can be used for socio-economic development particularly in education, business, governance, health and many more. In the business world, these tools have paved a way to the development of entrepreneurial skills. People have made use of the web for financial gains. In addition, the use of web tools particularly social media has increased the number of customers buying different goods, services and products. With Web 2.0, service firms and retail businesses can monitor their products and services by getting real-time feedback from their customers; they can also track the different activities being done by the customers and in a way be able to engage them in their business (Jagongo, 2013).

Generally, these tools and technologies have become ubiquitous because of the development of different Internet technologies and the improvement of the prices of the mobile devices including mobile phones. The ICT Facts and Figures report (ITU, 2013) shows that by the end of 2014 the projected number of users of the internet was 2.93 billion, about 40.4 percent of the total world population. The report further predicts that mobile-broadband penetration was expected to reach a 3 billion mark globally while in the developing countries, the penetration was expected to reach 84 percent. In Africa alone, 69 percent of the population was expected to be reached by mobile-broadband connection. Table 1 compares the statistics of Internet usage for five different years:

Table 1: Global Internet usage

Year	Population (Billions)	Internet users	%
1995	5,741,822,410	44,838,900	0.8%
2000	6,127,700,430	413,425,190	6.7%
2005	6,514,094,610	1,029,717,906	15.8%
2010	6,916,183,480	2,034,259,368	29.4%
2014	7,243,784,121	2,925,249,355	40.4%

Source: ICT Facts and Figures 2014 – ITU

2. Research Objectives

This paper is based on the findings of a study that was aimed at investigating the use of Web 2.0 technologies as a means for fostering socio-economic development in a bid to reduce poverty in Tanzania. The study looked into the ways in which web technologies can be used for financial gain to promote development at an individual and national level.

3. Research Methods

The instruments used in this research were documentary review, the questionnaire and interviews. A number of literatures were examined to determine the impact of Web 2.0 tools. On the one hand, the questionnaire consisted of questions that were structured to be answered by the participants. These questions were aimed at getting data on the use of Web tools and technologies for socio-economic development in Tanzania. The questionnaire consisted of six (6) questions that were administered with a group of people including students from the University of Dodoma whereas the other group consisted of both teaching and academic staff. There were also a few feedbacks from different online groups where the questions were posted. These were combined with the feedbacks from other groups and the results are presented in the next section. The questionnaire was distributed to 96 participants (67 students and 29 online respondents) and the data obtained was analysed using the Statistical Package for Social Sciences (SPSS) to generate descriptive graphs as displayed in section 4. On the other hand, interviews were conducted with 15 people to get the views on how they

use these Web 2.0 tools and technologies specifically in bringing about individual gains and socio-economic development. Most of the respondents provided feedback that was directly translated to contribute to both individual development and national development.

5. Results and Discussion

A structured questionnaire with both open and closed end questions was distributed and the responses were collected from a group of 96 respondents. The responses from the different questions are presented sub-sections 4.1 through 4.4.

6. Contribution of Web Technologies to Socio-economic Development

The respondents were asked a question on whether Web technologies were important in socio-economic development. From the responses, 42.6 percent strongly agreed that these tools played a role in the socio-economic development, 52.9 percent just agreed and only 4.4 percent did not agree. Figure 1 depicts these results graphically.

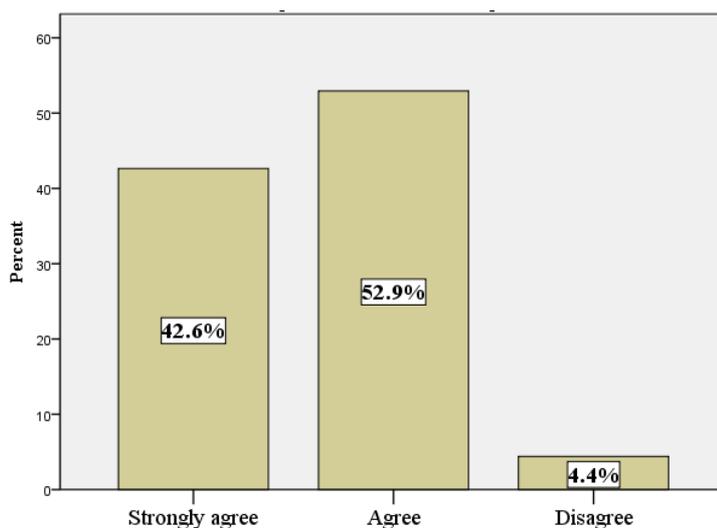


Figure 1: Importance of Web tools and technologies in socio-economic development

7. Impact of Web Technologies on Other Sectors

When asked about the impact of Web tools and technologies on other sectors such as health, education, governance and business, the respondents indicated that these technologies were more widely used in business than in any other sector, and hence greater impact. Sections 4.2.1 through 4.2.4 discuss the responses on the different sectors and graphical representations of the results.

7.1 Web 2.0 Technologies in Business

Most of the participants agreed that the technologies played a significant role in the business sector. It is by doing business that some individuals get financial capital which, in turn, helps to bring about personal and national development (Jagongo, 2013). In this case, 60.61 percent of the participants said that the level of acceptance in the business sector was high, 34.85 percent said that the level of acceptance was medium. 3.02 percent indicated a low level of acceptance while 1.52 percent did not see any role played by the technologies in the business sector. Figure 2 shows the impact of Web technologies on the business sector.

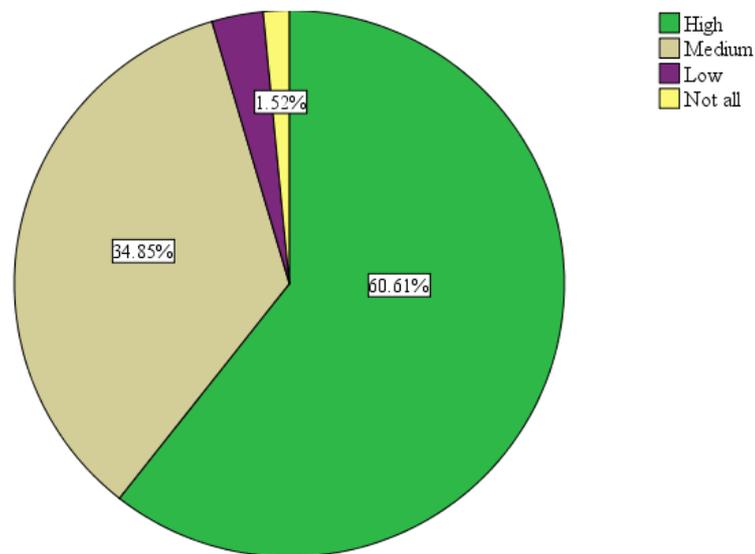


Figure 2: Web 2.0 technologies in business promotion

7.2 Web 2.0 Technologies in Education

Web 2.0 tools have facilitated the process of accessing education, especially online education. Usluela and Mazman (2009) have discussed the different Web 2.0 tools that are easily adopted in education. The findings show that 40.9 percent said that web technologies have a high impact on promoting education whereas 48.5 percent replied that the impact of these technologies on education was medium. Those who said that the impact of technology on education was low constituted 9.1 percent and those who did not see the impact at all made up 1.5 percent. Figure 3 shows the impact of web technologies on promoting education:

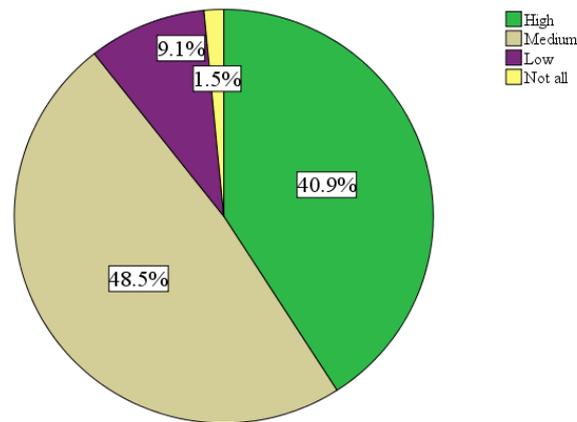


Figure 3: Contribution of Web 2.0 in the education sector

76.3 Web 2.0 in Health

The research findings show that Web 2.0 technologies are used in promoting health in that 22.1 percent said that the impact of web technologies on promoting health was high, 54.4 percent responded by saying that the impact to the health sector was medium with only 2.9 percent said they were not able to see the impact. This impact is depicted in Figure 4:

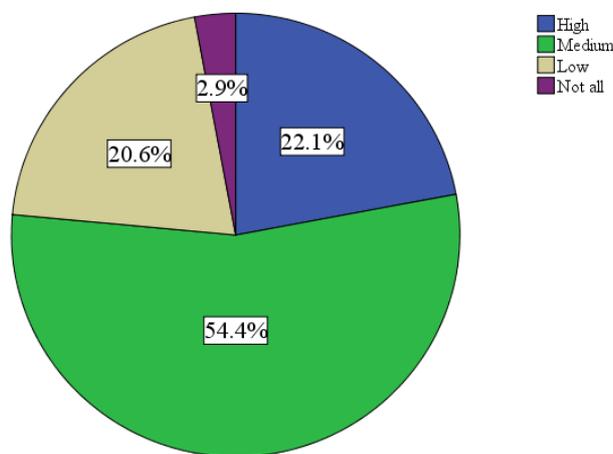


Figure 4: Impact of Web 2.0 in promoting health

7.4 Web 2.0 in Governance

It was reported that using these tools and technologies in governance translated into enhanced accountability and transparency, which in turn promoted development of the nation. Moreover, a report by Accenture (2009) explains how Web 2.0 enables more effective citizen engagement and collaboration within the community they live in. In Tanzania, for example, social media have gained popularity as a way to reveal some issues in which the government has to intervene and take actions. Figure 5 displays how Web 2.0 tools can help in promoting good governance. As observed, 20.9 percent of the respondents said the impact is high whereas many of the respondents (55.2%) answered that the impact was medium. Only 2.9 percent believe that Web 2.0 tools and technology do not have an impact on governance.

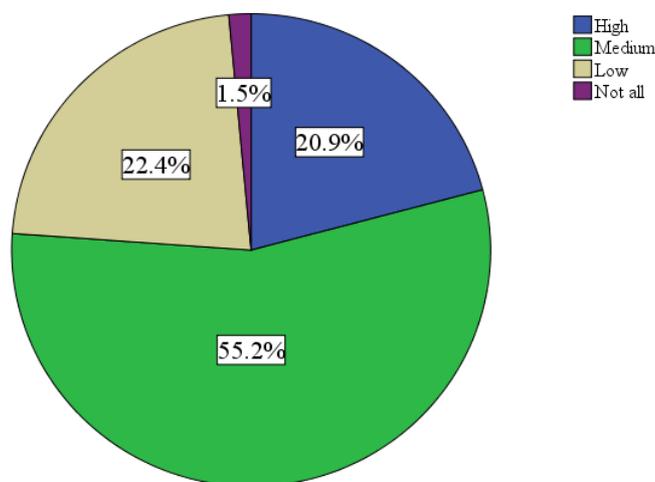


Figure 5: Impact of Web 2.0 in Promoting good governance

8. Purposes of Using Web Tools and Technologies

When participants were asked about how they use the different Web 2.0 tools and technologies, they responded as presented in the following sections.

8.1 Web 2.0 for Education Purpose

It is evident that Web 2.0 tools are well applied in education and have been preferred by many as an alternative way of getting education. When asked about the use of these tools in education, 39.4 percent said they always use them for educational purposes whereas 53.0 percent responded that they often use them. Only 6.1 percent indicated rarely using these tools whereas 1.5 percent never used the tools for education purposes. The findings are in line

with the studies conducted by Shao and Hassan (2014): Figure 6 depicts the use of Web 2.0 tools for education:

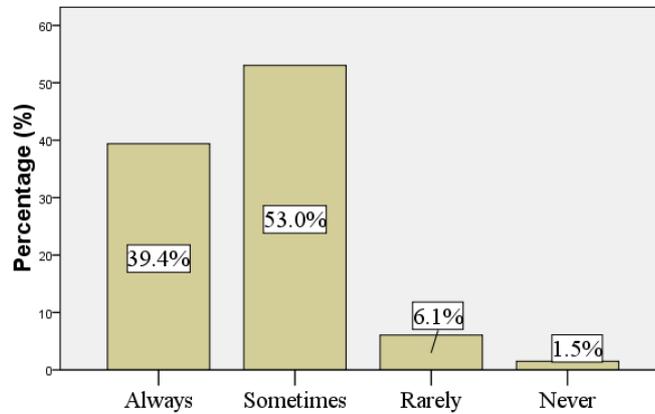


Figure 6: The use of Web 2.0 for education

8.2 Web 2.0 for Business Purpose

From the responses, it is seen that many Web 2.0 technology users used these tools for business purposes. Figure 7 shows the use of Web 2.0 tools for business. In each case, the percentage of users was high: 30.3 percent always used the technology for business, of whom 43.9 percent used them more often and 19.7 percent used the technology rarely.

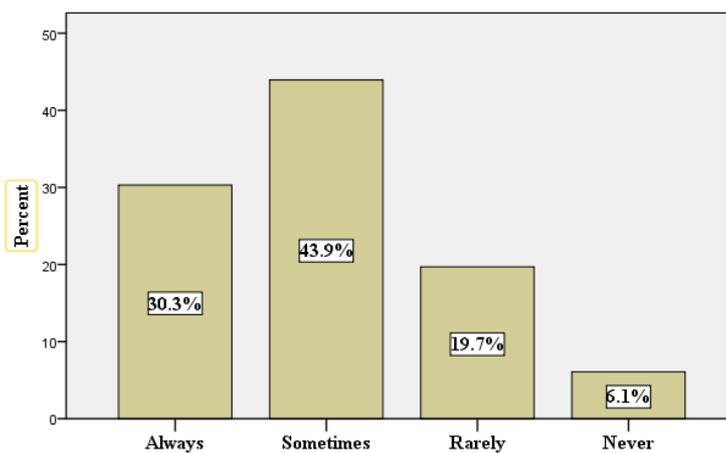


Figure 7: Web 2.0 for business

87.3 Web 2.0 for Connecting Friends and Family

Many users said that they used Web 2.0 tools for connecting with family and friends online. Of these respondents, 68.2 percent always used the tools and 28.8 percent often used them. Figure 8 shows the use of Web 2.0 for connecting with family and friends:

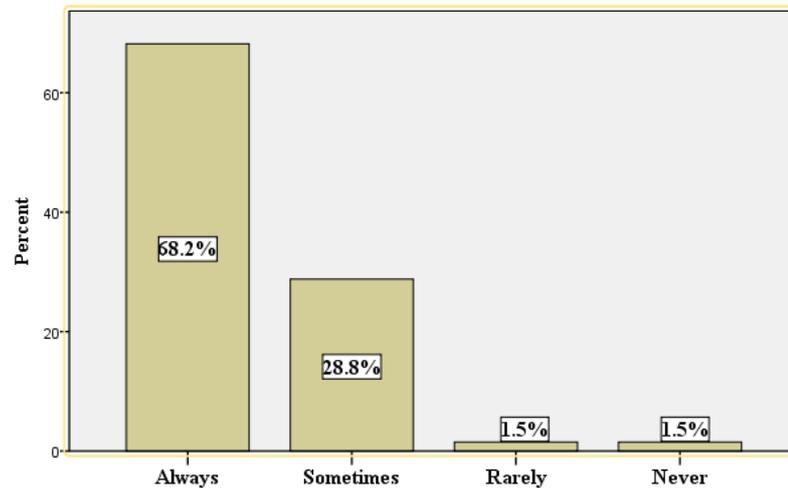


Figure 8: Web 2.0 for connecting family and friends

8.4 Web 2.0 for Getting Information

Some respondents said that they use Web 2.0 technologies to get information on various issues such as employment, headlines of different newspapers, and announcements from various public and private institutions. The information obtained in this case can create opportunities for the individuals to venture into different socio-economic endeavours and hence help trigger personal and national development.

8.5 Web 2.0 for Engaging in Social Groups

By engaging in social groups, one can get some useful information and techniques on how to venture into business or how to make effective start-ups. This has been evident in businesses such as “Forever Living” products which operate using networks. Figure 9 shows how participants engaged in social networks, with more than 30 percent of each category engaged in the use of social networks:

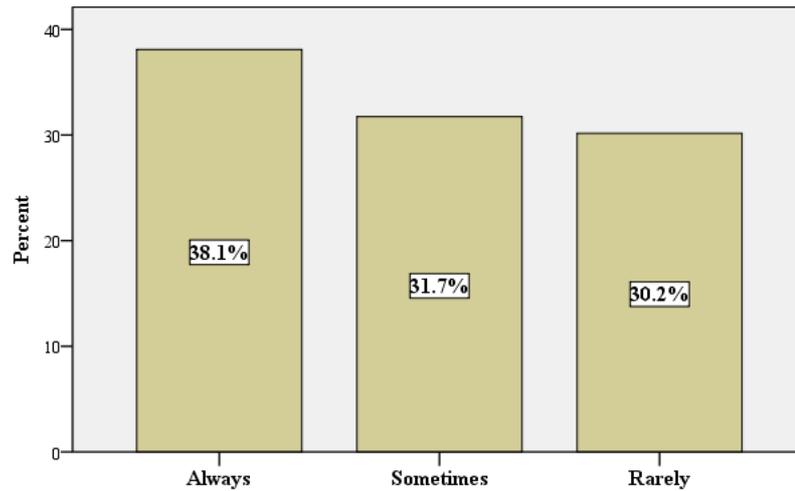


Figure 9: Web 2.0 for engaging in social groups

9. Use of Web 2.0 for Personal Income Generation

In this question, the participants were required to explain briefly how they use Web 2.0 tools and technologies for individual income generation. The overwhelming majority (88.89%) used for advertising goods and services to customers whereas very few (5.56%) used the technologies for posting product and service description and network marketing. Figure 10 shows how the technologies are used in generating personal income. While undertaking network marketing, people can acquire skills on how to do some business and in a way earn money. In this way they increase their personal gains.

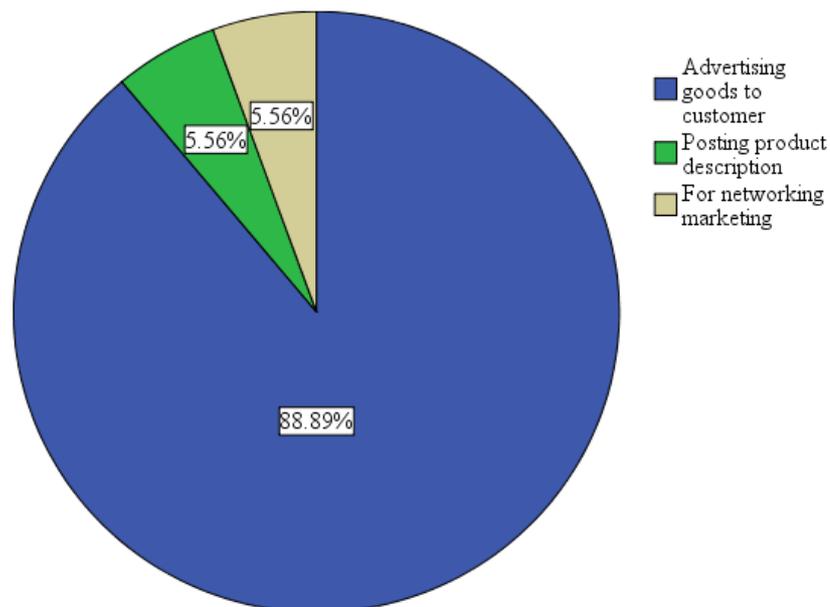


Figure 10: Web 2.0 for personal income generation

10. Impact on Policy and Practice

The use of different Web 2.0 has played an important part in the development of an individual as people can use these tools to increase their financial gains, especially by using these tools to advertise goods and services. Business can also be made in many ways including making advertisements on the pages of blogs and other social networks. In fact, the 2003 National ICT Policy envisages Tanzania to become a hub of ICT solutions that enhances sustainable socio-economic development that will accelerate poverty reduction at the national and global levels. This is true because the use of ICT in our daily activities facilitates development and, therefore, the Tanzania government has embraced the use of ICT as a strategy to empower citizens in the fight against poverty and improve the quality of their lives.

11. Challenges to the Use of Web 2.0 Technologies

Despite the positive impact of the use of Web 2.0 tools and technologies on society, there are many challenges associated with the use of these tools. For example, using Web 2.0 tools leads to information overload. This is because information is readily available in which the user can get overloaded by the information floated to him/her through Web 2.0 technology. The technology has also been able to unite people for a common action with the aim of fostering accountability and transparency in political leadership. This was the case with the Tunisia and Egypt Arab Spring of 2010 and 2011, respectively, where protesters were moved due to the high levels of unemployment, long serving leaders, food inflation and governmental corruption (Darwish & Lakhtaria, 2011).

On the other hand, the Web 2.0 platforms can be detrimental to the moral fabric of society. Indeed, in some cases, Web 2.0 and social media users are free to post status, comments, images and videos clips. Some of these posts may degrade the moral values of the society.

12. Conclusions

The findings of the study presented in this paper demonstrate that Web 2.0 tools can be used to promote the socio-economic development of an individual and the nation at large. The ways through which technologies can be used to foster development include advertising

goods and services, network marketing, getting updates with useful information from public and private institutions which have a presence on these Web 2.0 tools. However, to be more effective in using these technologies to increase financial gains, education and awareness should be provided to the Web 2.0 users on how best these tools can be used to maximise financial gains and to boost economic development. On the whole, a well-informed society is a source of many changes including sustainable poverty reduction efforts. Thus, it is high time these Web tools were deployed effectively for the development of the individual and the nation at large.

13. Recommendations

If Web 2.0 tools and technologies are used positively, they can help to transform the individual and the society in different spheres including quick access to information, breaking news, and promotion of governance in terms of awareness, accountability and transparency. In this regard, all government websites should integrate social network links so that citizens can get latest updates via their mobile devices by liking the pages. It is also true that social media can act as another voice to different organisations. After all, people tend to get information from social media much more quickly than navigating through the websites looking for the desired piece of information.

As the National ICT Policy of 2003 (URT, 2003) was formalised before many web services were in place, it is high time it was revised and updated to accommodate the evolutions of different Web tools and technologies, which can help promote the development of the individual and the nation at large.

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