The Role of Web 2.0 in Education

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Abstract: Developments in Information Communication Technologies (ICTs) have made significant impact on all spheres of human life. These ICTs has made a great impact in education. ICTs have been a prerequisite and a subject or course for every student even at kindergarten. The emergence of these ICTs has given birth to web 2.0. Web 2.0 is a second generation of the World Wide Web that is focused on the ability for people to collaborate and share information online. Students can now connect with subject specialist, students, researchers and friends throughout the world. This article explores the role of web 2.0 in education. It demonstrates how web 2.0 can be utilized for the betterment of our learning processes. The challenges of the use of web 2.0 and how these challenges can be curbed are discussed in the development of efficient and effective educational system.

Key words: web 2.0, web, technology, education. Information and Communication Technology (ICT), internet, information, knowledge, learning, classroom, students, teacher, classroom practitioner, World Wide Web, podcast.

I. Introduction

The Stone Age did not end because there were no more stones, it ended because of embracing change (Mutongi, 2016). Information and Communication Technologies are essential components for life and everyone should have a skill in using them. Classroom Practitioners and students have to be well versed in ICT tools and applications for their efficient and effective day to day operations. Kotler (2005:33) observes that the internet creates new winners and bury the laggards. ICT capability encompasses not only the mastery of technical skills and techniques, but also the understanding to apply these skills purposefully, safely and responsibly in learning, everyday life and employment. ICT capability is fundamental to participation and engagement in modern society. It removes the physical boundaries and facilitates knowledge sharing hence transforming the economy into a knowledge based economy. Today, one has to run very fast in order to stay in the same position (Kotler, 2005). Web 2.0 is a part of ICTs that allows interactivity, immediate feedback and instant publishing.

II. What is Web 2.0?

Web 2.0 basically refers to the transition from static HTML web pages to a more dynamic web that is more organised and is based on serving web applications to users (Beal, 2017). It is a collective term for certain applications of the Internet and the World Wide Web, including blogs, wikis, video sharing services, and social media websites such as Facebook and MySpace, which focus on interactive sharing and participatory collaboration rather than simple content delivery. The term “Web 2.0” was introduced by the O’Reilly Media Web 2.0 conference in 2004, which focused on social uses of the Web (Business Dictionary, 2017).
Figure I shows that web 2.0 is a byproduct of the ICT and internet but not everything that is on ICT and internet is web 2.0. Web 2.0 are social media tools that are web based and allow interactivity which include facebook, twitter, instagram, whatsapp, skype, Wikipedia, myspace, linkedln. Web 2.0 is the low cost web-based services that assist people to create groups and interact with each other on social or professional levels. The social media tools also help users to create content and publish without going to the established publishing houses. There are no rules to the publishing of information. The tools are meant to reach out to a wider audience and allow people to express themselves freely, interact with each other and it becomes a two way communication or group communication. People of like interests get to know each other and share ideas and information at the click of a button. Social media tools or web 2.0 applications cut across geographical boundaries. Users can share and publish information across borders or can also decide to confine groups to geographical or other boundaries. Social networking sites were initially used by young people, but now they are attracting people of all ages.

III. Web 2.0 and Education

Service types and examples of web 2.0 technologies
The ICTs in education embrace various styles of learning (Sharma, 2008). With the task of preparing students for a future that is increasingly digital and driven by information access, educators must think creatively to meet the needs of all students. The table below shows examples of web 2.0.

<table>
<thead>
<tr>
<th>Service type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networking</td>
<td>Facebook, Bebo, whatsapp,</td>
</tr>
<tr>
<td>Video and photo sharing</td>
<td>YouTube, Flickr</td>
</tr>
<tr>
<td>Blogging</td>
<td>Wordpress, Wikipedia</td>
</tr>
<tr>
<td>Microblogging</td>
<td>Twitter, Tumblr</td>
</tr>
<tr>
<td>Social Bookmarking</td>
<td>del.icio.us, Digg</td>
</tr>
<tr>
<td>Resource organising</td>
<td>Pageflakes, Netvibes</td>
</tr>
<tr>
<td>Business platform</td>
<td>LinkedIn</td>
</tr>
</tbody>
</table>

By integrating tools with research-based learning strategies, educators can enhance and transform the traditional learning environment. The education system is moving from isolation to networking due to the use of web 2.0. The global village which might seem far from the developing nations might be made a dream come true. The only question to be raised is who are the leaders of this global village?

Information and knowledge sharing
There is immense information and knowledge sharing through the use of web 2.0. Knowledge shared is actually knowledge multiplied (Mutongi, 2016). Students and teachers are not just limited as downloaders of information but uploaders.

Networking
Web 2.0 removes the culture of silence in a school environment which was criticized by Freire (2005). Our students will be living and working in this networked environment in which they must be able to locate, manage, create, and communicate online content (VSTE, 2017). Web 2.0 results in networking with other students, teachers, researchers and expects throughout the world.

Students participation
Using web 2.0 video conferencing services, educators and students can converse with experts (scientists, engineers, even astronauts) who can help make real world connections to the curriculum (VSTE, 2017). Wed 2.0 allows great participation. This was not the case in web 1.0 which was read-only where Internet users went online to find information. It was similar to going to the library to find books. With Web 2.0, which is read/write, people have become active participants and content creators. They not only find information on the Internet, but they also create and share content (Thompson, 2007). Immediate feedback is also obtained and ask the teachers platforms are also provided.
Inclusivity
With the task of preparing students for a future that is increasingly digital and driven by information access, educators must think creatively to meet the needs of all students (VSTE, 2017). Even students with some physical challenges due to the multimedia nature of web 2.0 can still participate in their educational issues being discussed.

Motivation
Web 2.0 can motivate students to continue learning outside classroom setup. Students and teachers are already using these tools for their own purposes. It becomes motivational if they are to utilise them for their educational purposes.

Updates
Teachers and students could try hosting book discussion groups using a blog or wiki and providing service updates or marketing events using Twitter. They can produce promotional videos for YouTube, which are inexpensive to make and could appeal to difficult to reach groups. For examples Slainte 2.0 website.

Blogging and Podcast
A blog is an on-line journal. It may be authored by an individual or a group wishing to communicate their research and/or opinions on one particular Topic. An audio blog is often called a podcast.

Instant information uploading
Web 2.0 services can be updated quickly and published instantly. This means that time delays associated with traditional web publishing, where ICT departments often retain control over website content, can be sidestepped. For example, by using blogs or microblogs, teachers and students can go straight to the user with news and up to date information related to new services, materials or service developments.

Removes physical boundaries
The physical boundary of a classroom can be removed as a classroom can be actually virtual through web 2.0.

IV. Web 2.0 that support classroom
The following are examples of web 2.0 tools that can be used to support a classroom as presented by Dabbs (2017).

Glogster
An example of glogster in a history lesson

Picture 1: battlefield glogster
Students can combine text, pictures, graphics, video, and audio to create an interactive online poster. They can click and drag items out of Glogster’s resources, choose their own backgrounds, pictures, text boxes, videos, web links, and more.

Kidblog
This 2.0 site was designed specifically for elementary and middle school teachers who want to provide each of their students with their own, unique blog. Kidblog’s tools allow students to publish posts and participate in discussions within a secure classroom blogging community. Teachers maintain complete control over student blogs.

Linoit
Linoit is a great service that provides its registered users with virtual “stickies” that can be placed on a canvas or bulletin board area. Both lino users and non-registered guests can post stickies on the canvas.

Livebinders
Livebinders were created so that anyone, but especially educators, could do with digital information what we do with the papers on our desk – organize it into nice containers – like 3-ring binders on a shelf. With these online-binders, you can also upload your documents and easily combine them with your links in a neat and organized way.

Skype
Skype, students can learn from other students, connect with other cultures, and expand their knowledge in amazing ways by communicating through their computer with a webcam. They will be seeing each other and there can be demonstrations which enhance learning.

Storybird
This is a fun and easy-to-use tool for creating short, visual stories. Students can select artwork, drag and organize photos, and add their own text. These creations can then be published on the web with adjustable privacy settings. There is also the option to allow comments.

VoiceThread
VoiceThread is a collaborative, multimedia slideshow that allows students to comment on images, documents, and video through text, video, and audio files. Teachers can set up groups and classes as well as moderate comments, embed to blogs, and export to audio files.

Wordle
Teachers and students can generate word clouds that show prominent words in any body of text.

Wetoku
Wetoku provides a simple platform for interviewing someone via the Internet.

V. Challenges of web 2.0 in Education
The following are some of the challenges posed by web 2.0:

Information overload
We are now living in the information society and global village of which we are bombarded with huge sums of information which is not all relevant to us (Mutongi and Chiwanza, 2016).

Pornography
Pornographic material can be spread through web 2.0 which affect the learning process and which is also illegal.

Diverting from the education business
Students and teachers can worst time doing other things that do not have anything to do with education.
Spread Lies
Akita (2016) warns us “never believe all that you hear. Always verify the original source of information”. Lies can be spread within second the world through web 2.0.

Causes Stay always and demonstrations
If the social media had the power to cause the Zimbabweans to stay away in the ‘this flag’ campaign, it can also cause students too demonstrate for a common cause. This results in the disturbances of learning.

Limited Bandwidth
There is limited bandwidth at most schools with affects the flow of information. In the developing world there are some schools without even the internet connectivity especially in the rural areas.

VI. Recommendations
Due to the identified challenged, the following recommendations are given:

- There is need for information literacy skills so as to curb the information explosion. Each student and teacher should be taught information literacy skills so as not to waste more time on inappropriate information. This then calls for a school librarian to train students and teachers information literacy skills.
- Information literacy skills will help students and teachers filter the unnecessary from the necessary as well as identifying lies.
- Increased bandwidth at schools is called for. Adequate funding must be made available to help schools address this issue of bandwidth.
- Firewall can be used to curb pornography.

VII. Conclusion
It is imperative that schools should embrace the use of web 2.0 as an aspect that enhances education and allows effective participation of the students as the student is not just passive receiver of information. Students are also a creator and uploaders of information.

References
Bio-data

Dr Cainos Chingombe is the Human Capital Director in the City of Harare with more than twenty six years experience on leadership positions, well travelled nationally, regionally and internationally. A founder and the brains behind Canonbury Preparatory Group of Schools. He is a renowned educationist. On the professional arena, Dr Chingombe is a Fellow Member of the following professional Boards-Institute of People Management of Zimbabwe and Zimbabwe Institute of Management. He is the current Chairman of the National Employment Council for the Motor Industry and a Board Member of Zimbabwe National Productivity Institute Board under the Ministry of Public Service, Labour and Social Welfare. Chief Negotiator of National Employment Council and Chief Negotiator of Harare Municipality undertaking. The founding of Canonbury Group of schools is the fulfillment of a deep passion of a man who holds education in high esteem. He holds a plethora of educational qualifications which include: PhD in Leadership (Aldersgate University-UK), PhD in Management (Commonwealth Open University -UK), Msc in leadership and Change Management (Leeds Metropolitan University-UK), Master of Public Administration (MPA - UZ), Bachelor of Education Degree (Bed-UZ), Higher Diploma in Human Resources Management (Honors)(IPMZ), Diploma in Personnel Management (IPMZ), Diploma in Management of Training (IPMZ), Certificate in Education (CE-UZ) and Secondary Teacher’s certificate (STC-GTC).