

Critical Cybergogy: Prerequisites for Achieving Learning Objectives in a Democratic Society*

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Abstract

Cybergogy is the online engagement of the educator and the educand. Both require prerequisites for successful engagement and the achievement of learning objectives with minimal wastage. Issues of low internet connectivity, lack of electric power, lack of funds to buy bundle to access the internet are common phenomena that the paper addresses critically and proposes that those responsible for the prerequisites are compelled, through activism in a democratic society, to take up their responsibilities. The paper contends that success in education in a democratic society is premised on the individuals who have been mandated to lead and show direction. When leaders are inept then activism can be applied to impel them into action. More research is needed on the catalytic role of leaders in cybergogy.

Key Terms: *Activism, Critical, Cybergogy, Educand, Democratic society*

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I. Introduction and definition of terms

This paper looks at cybergogy that is teaching and learning through the internet where the educator and the educand engage to achieve desired learning objectives (Wang and Kang, 2006). The paper is divided into parts numbered: 1-4. In part 1, the background is provided and relevant literature is reviewed since both are intertwined. In part 2 the problem is stated. Analysis is provided in part 3 whereas in part 4 a discussion is presented. A conclusion is finally made at the end.

A democratic society in the context of this paper is taken as any society whereby people elect leaders to represent them in the governance of their day to day activities. As explained by Flew (1999), a democratic society is where the government does the actual will of the citizens who elected that government. When the will of the citizen is not done, the citizens can resort to activism.

As explained by Online Etymology Dictionary, the concept of activism as it is used today originated in Sweden in 1915. During this time Swedish activists petitioned Sweden's neutrality in World War I. Appadurai (2003) defines "activism as addressing any issue by challenging those in power." The individuals who take part in activism are termed activists. Activists can protest, demonstrate, picket and present petitions to authorities. Activists can force the government to educate the citizens.

The individual to be educated is known as the learner or the educand. The educand interacts with the educator or teacher to achieve desirable learning objectives. The interaction can be synchronous or asynchronous. With increased demand for distance education, online interaction might be the mode of education for a majority of learners.

Cybergogy emerged from cybernetics through the works of Wang and Kang (2006). Cybernetics is defined as the "scientific study of communication and control systems in animals and machines, especially the comparison of these processes in biological and artificial system" (Encyclopaedia Britannica, 2020). The coining of the term is generally attributed to American mathematician and philosopher, Norbert Weiner (1804-1964) from Greek, *kybernetikos*, meaning the art of the helmsman (Encyclopaedia Britannica).

Cybergogy is a combination of cyber-, which is a prefix relating to computers and the internet and -gogy, which is a suffix derived from pedagogy meaning "science of" or "knowledge of." Pedagogy generally means science or philosophy of teaching. Cybergogy can be defined as the philosophy of internet teaching.

Critical cybergogy is online teaching whereby freedom of expression is allowed with a view to being critical as responsible citizens (Uddin, 2019). It takes cues from critical theory as propounded by Frankfurt philosophers in 1930s (Mautner, 2005).

Broadband is a wide bandwidth data transmission technology which allows large number of messages to be transmitted at ago. Examples of broadband include digital subscriber line (DSL), which uses telephone lines. Others are cable modem or router, fibre, wireless, satellite and broadband on power line that uses electric transmission power lines.

II. Background and the review of relevant literature

Cybergogy, as defined by Wang and Kang (2006), is virtual based learning, which refers to learning online. The coining of the term cybergogy is attributed to Minjuan Wang of San Diego State University, California and Myunghee Kang of EwhaWomans University, South Korea. It is a synthesis of pedagogy (philosophy of teaching of young learners) and andragogy (philosophy of teaching adults), as explained by Carrier and Moulds (2003). It focuses on cognitive, emotional and social processes. It is accomplished through interacting socially with the teacher. In such interactions, learners construct knowledge of their own.

Construction of knowledge in cybergogy requires internet connectivity which is supported by broadband, electric power and funds to buy internet bundles (Adenekan and Haliso, 2019). Broadband refers to faster, high speed internet technology that can be accessed through Wi-Fi, fibre optics, wireless, cable, DSC and satellite. The type of internet broadband one chooses depends on needs, preferences, cost and location. In a democratic society, where the government is elected by the people for the people, it is the responsibility of the government to provide all the prerequisites for successful cybergogical undertakings.

Members of the society in a democracy pay taxes to enable the government to work for them. If the citizens are not satisfied with what the government does, they can protest and this is allowed by international conventions, regional laws and national laws. The International Covenant on Civil and Political Rights (ICCPR) of 1966 allows for protests and activism, so long as they are done within the confines of the law. The Universal Declaration of Human Rights (UDHR) of 1948, Articles 18 to 21 deal with exercising one's freedom which includes working with others or alone to petition the authorities. The Universal Declaration of Human Rights Committee is responsible for monitoring the ICCPR. Also the 1950 European Convention on Human Rights supports activism. The same is also supported by the Constitution of Kenya (2010), Chapter Four: The Bill of Rights, Section 37 which states:

“Every person has the right, peacefully and unarmed, to assemble, to demonstrate, to picket, and to present petitions to public authorities.”

From the laws cited, it is evident that when you protest as an activist pinpointing to the leaders what they have failed to do as a result of their ineptitude you are just within the law. Out of the 195 countries in the world, 182 subscribe to these international laws.

The National Information, Communication and Technology (ICT) Policy (2019) of Kenya, talks of provision of high internet speed, securing a ubiquitous ICT infrastructure and providing data centres within the country, among other things. This policy is also the subject of Kenya Gazette of 7th August, 2020. Internet infrastructure, connectivity and costs are cardinal areas to be addressed for effective cybergogy. According to Alliance for Affordable Internet (A4AI), a global organisation comprising public and private organisations that aim at reducing the cost of accessing the internet lists obsolete infrastructure, cost and non-availability or fluctuations of power as some of the impediments to internet accessibility.

The top five countries in the world with the fastest internet connectivity are Iceland, Liechtenstein, Andorra, Taiwan and Luxembourg (Howdle, 2022). The global average speed is 32.13 Mbps (Megabits per second). Megabits are tiny units of data that can be transferred in a second. Mbps is standard measure of broadband speed. Broadband is defined by Oxford dictionary as a transmission technique of very many frequencies which allows a large number of messages to be transmitted at the same time. When very many people are using the internet searching for the same thing, the internet may get congested. Old bandwidth may also cause internet congestion. One Megabit is equivalent to one million units of data. A good download speed is at least 100 Mbps and for upload it is at least 10 Mbps.

Five countries with the slowest internet connectivity in the world are Turkmenistan, Timor-Leste, Yemen, Guinea Bissau and Afghanistan. Turkmenistan broadband internet speed is 0.77 Mbps whereas Iceland it is 216.56 Mbps and this can be translated to mean that “to download a 5 GB file in Turkmenistan it would take 14 hours and in Liechtenstein it would only take three minutes” (Atlas and Boots, 2022).

In Africa, Rwanda has the fastest internet, followed by South Africa, Madagascar, Nigeria and Seychelles. Five countries in Africa with the slowest internet connectivity are Ethiopia, Guinea Bissau, Equatorial Guinea, South Sudan and Djibouti (Isaac, 2021). Low internet accessibility does not always translate to few internet users.

Causes of slow internet connectivity in Africa have been attributed to bad leaders (Isaac, 2022) who do not care about internet infrastructure and relevant policies. In some cases policies are put in place but not implemented.

Table 1: Some Countries of the World Showing Estimated Population and Internet Users in 2022

Country	Estimated Population (2022)	Number of Internet Users	Percentage Population of Internet Users
Algeria	45 Million	50,000	0.1%
Angola	35 Million	30,000	0.08%
Benin	13 Million	15,000	1.1%
China	1.5 Billion	1.02 Billion	71%
France	66 Million	61 Million	93%
India	1.4 Billion	840 Million	60%
Kenya	56 Million	23 Million	42%
North Korea	26 Million		0%
Russia	146 Million	130 Million	89%
Singapore	5.6 Million	5.45 Million	92%
South Korea	51.4 Million	50.29 Million	98%

Source: <https://www.internetworldstats.com>

Of the 11 countries indicated, each claims to have some sort of democracy where leaders are elected. In China, the government is described as socialist consultative democracy where elections occur at local levels, whereas in North Korea the government is described as dictatorship of people's democracy.

The country with the highest number of internet users is South Korea at 98% while the one with the lowest number of internet users is North Korea, which is given as 0%. In North Korea, internet use is restricted mainly to government officials and foreigners. Four African countries are given on the table and three of them have less than 2% of Internet users. It is only Kenya which has 42% of her population accessible to the internet.

III. The problem

In a democratic society, it is the responsibility of the government or the elected leaders to provide adequate infrastructure for internet connectivity to the citizens. Most world leaders as demonstrated by slow internet connection in some selected countries do not take it as a serious responsibility to provide the necessary facilities to access the internet. When leaders are failing the citizens then the citizens have a right to demand the provision of the necessary services through activism.

Since cybergogy can enhance human advancements, it is felt commanding and necessary to institute activism by the citizens to make the leaders or the government to provide facilities for online education. This is envisaged to be applicable to any country in the world where the government is slow in providing online learning services to the citizens.

IV. Analysis

Human rights are found within most of the laws of the society. The Universal Declaration of Human Rights of 1948 sets basic framework for national laws all over the world. There are 195 countries in the world and 182 of these countries subscribe to these international laws. It means that if the Holy See and Palestine are left out as countries with observer status to the UN, there are only eleven countries which do not adhere to the principles of human rights as set out by the UN, for instance Czechoslovakia, Poland, Saudi Arabia, Ukraine and Yugoslavia, among others. Saudi Arabia abstained because they believe it contradicts the sharia laws.

Cybergogy deals with education and education is a human right endeavour. Educationists advocate for free and compulsory education. In some countries of the world, education is free up to the highest level whereas in some countries it is paid for from pre-school to university. Some of the countries that offer free education at all levels include Argentina, Brazil, Cuba, Finland, Poland, Turkey, Sri Lanka and Uruguay (Wikipedia, 2022). When citizens pay for education and at the same time pay taxes to run the country, it is better for education to be done efficiently and effectively. In this age of online teaching and learning, it is expected that any democratically elected government will provide education to its citizens without any restraint. Provision of local area network (LAN) and wide area network (WAN) is the responsible of the leaders, although some companies may also assist. For example, in Kenya Safaricom, Airtel, Faiba, Zuku, Poa, Liquid Home, Surfnet Solutions and CheetahNet Solutions are companies that provide network. The internet provider owned by the Kenya government is Telkom, which does not cover adequately all parts of the country.

V. Discussion

When a country does not provide necessary internet prerequisites for online learning, leaders are failing those who voted them into power. Since power belongs to voters, the voters have no alternative but to demand services through activism. Activism can be described as peaceful revolution which is accepted by contemporary laws. The leaders must recognise that citizens have power to remove them from their elective positions and any revolt exhibited must be reckoned with.

The social media at the disposal of the citizens can be used to promote e-participation in activism as it promoted Arab Spring Uprising (Jafarkarimi, Sim, Saadatdoost and Hee, 2014). Activists can use facebook and WhatsApp to mobilise colleagues to demand infrastructure such as broadband with bandwidth for cybergogy. Demand should be placed to the government to put into use digital subscriber lines in places where telephone lines exist and in places with electric power, broadband over power lines to be put in place. Fibre optic cables to be laid in the country for ease of internet accessibility. Activists are to put pressure on elected leaders to set up appropriate satellite stations at strategic places within the country to facilitate cybergogy.

Governments may talk of lack of funds when they are confronted with the idea of providing necessary infrastructure for cybergogy. Lack of funds is an excuse that activists should never condone. Take for example Angola, one of the richest diamond producing countries in Africa where the population that access the internet is less than 1%. In such a country, activism can solve any issues related to democracy, not only those of cybergogy. No government should talk of less money yet the citizens pay taxes and the country has other resources from which funds can be generated. If a country claims to have no money, then it should not have ministries such as finance and economic development. It is the responsibilities of these ministries, in collaboration with others, to ensure that the country generates enough funds for her development, especially in education where the multiplier effect cuts across all sectors of the country's economy.

As noted by Bleiberg and Darrell (2015), by 2015, Turkey government was able to provide educational institutions with broadband access. What reason can a government give for neglecting online education which is now the contemporary mode in the world? Resources should be channeled to online education in the same manner a country channels resources to war. When a country is fighting a war with another country, most resources are channeled to the war. Cybergogy is the new frontier of intellectualism and investment in education is to focus on it. Budget allocation for education is to give first priority to cybergogy.

In critical cybergogy, like in all critical theories, everyone has leeway to agree to disagree. No one is bound by the dictates of others. The learners are instilled with knowledge to be critical thinkers and not mere imitators of others. In critical cybergogy, both the educator and the educand are critical participants. The criticality enables the educand to be a responsible citizen who is able to propose and work for change in the society. The education acquired is transformative since it inculcates in the educand the ability to pinpoint mistakes done by leaders and then suggest solutions.

When leaders fail to provide cybergogical facilities and they are forced by activists to do so, the process teaches the educand that leadership is a sacrifice and not a privilege. The educand internalises useful leadership skills which are required in adult life. The educand learns to provide services and not to boss over the subjects. The educand also learns the principles of democracy which are essential for everyday life after one has graduated from school. When technology is embraced in education it creates world-class education (Department of UK Education, 2018).

VI. Conclusion

Every responsible citizen is bound to be an activist. Education requires activists who point out what should be done in a democracy. To promote cybergogy, all education stakeholders must embrace online engagement of the educator and the educand. Leaders are to make cybergogy possible by channeling adequate funds to it. The paper recommends more researchers on what leaders are expected to do in promoting cybergogy.

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