Commodification of Information and its Implication for Equitable Access to Information and Sustainable Development

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Abstract

The United Nations' sustainable development goals (SDGs), an agenda to transform our world is achievable when people have access to quality information to take action across goals of the agenda. Conversely, inequality in the access to information, which could be as a result of information monetization possess a threat to the realization of the development agenda. Consequently, this study theoretically examined the justification of information commodification. It thereafter established a relationship between commodification and equitable access to information. The study also explored how commodification of information can threaten the actualization of SDGs. Based on the understanding that commodification is a value concept and the cost of information production, the study proposes some measures as way forward in finding an intersection between commodification and equitable access to information, in a manner that will not compromise sustainable development.

Keywords: Access to information, Commodification of information, Equitable access to information, Sustainable development

Introduction

The United Nations (UN), through the 2030 development agenda to transform our world, has given member states a direction towards sustainable development. The agenda contains 17 goals that should stimulate progress within a 15-year timeline (2015 to 2030). Consequently, nations around the world are leaving no stone unturned in their pursuit to achieve a development that is sustainable (caters for the present without compromising the future). Across the goals within the developmental framework, quality information has been identified as a fundamental element to their actualization. This corroborates the assertion of Okuonghae and Igbinovia (2019) that information is a common element that runs through all goals and targets in the framework, implying that adequate access to information is relevant to the realization of sustainable development. Pointedly, libraries have taken a place of pride in actualizing Sustainable Development Goals (SDGs) because of their role of providing equitable access to quality information (Emezie & Igwe, 2017; Igbinovia & Osuchukwu, 2018; Amadi et al., 2020; Hamad & Al-Fadel, 2022; Aregbesola et al., 2023). This underpins their contribution to the SDGs (United Nations, n.d.). If libraries are recognized as a major vehicle that drives the realization of the UN's SDGs (Igbinovia, 2016), their services and programs aimed at providing access to information become the 'engine of the vehicle.' Thus, disrupting access to information negates SDGs' actualization globally, nationally, sub-nationally, and even at the individual level.

Access to information connotes the availability of information in the information space and people's right and ability to retrieve the information with minimal hindrance or obstacle for application in their personal lives. The dimensions of what constitutes access to information were given by the International Federation of Library Associations and Institutions (IFLA, 2021) to include access to infrastructure, user skills, relevant content, and supportive policy frameworks. According to UNESCO (2024), access to information can be described as the right to seek, receive, and impart information held by public authorities. It is an integral part of the fundamental right of freedom of expression, as recognized by Article 19 of the Universal Declaration of Human Rights (1948), which states that the fundamental right of freedom of expression encompasses the freedom "to seek, receive, and impart information and ideas through any media and regardless of frontiers." Thus, people are expected to have unrestricted access to information to the greatest measure possible as a stride towards ensuring societal development.

IFLA (2021) affirmed that adequate access to information is an essential component of development. This is reflected in a number of SDG targets and other publications that emphasize the importance of access to relevant content, digital inclusion, and the ability to traverse the information ecosystem for development. The position of IFLA reveals that the concept of access to information is intertwined with that of digital inclusion, which was considered by the International Telecommunication Union (2017) as the availability and access to ICT infrastructure, services, and skills that allow people to become global citizens and participants in the global economy. The absence of digital inclusion results in a digital divide, which compromises the principles of the UN's sustainable development. This divide is strengthened by the commodification of information, which treats information as a commodity that can be sold and purchased financially, limiting its access to only those with the wherewithal to afford it.

The commodification of information considers information as a commodity like goods and services that can be bought and sold in the market. Commodification of everything is one of the distinctive features of neoliberalism (Lawson et al., 2015), which has resulted also in a commodification of information that today has become largely commercial. This implies that information can be exchanged through market transactions where people give money or its equivalent for information that is perceived to be of value. The value of information, according to Raban et al. (2019), could be subjective or experiential value. Subjective value is the value that is perceived by the user before purchasing and/or using the information, while experience value is that value revealed after using the information. According to Adair (2010, p. 247), "Information commodities, like 'traditional,' manufactured commodities, refer to things that are bought and sold in a market and contain both a use value and an exchange value." Thus, the commodification of information is based on the ideology that information has monetary value or value that can be transacted for goods and services. Thus, Lawson et al. (2015) affirmed that the commodification of information shifts information from being a right to being a privilege of those who can afford it. This apparently creates a knowledge gap and reinforces the class segregation between the information-rich and the information-poor.

The segregation caused by the commodification of information raises concern about the equitable access to information since people can only get as much information as they can pay for, especially when such information is behind paywalls or has been packaged in a tangible

form and put up for sale. Thus, information as a commodity has gained remarkable attention, especially in the library and information science profession, where information is often conceptualized in tangible or recorded forms, which make it easier to exchange for a fee. This, however, compromises the tenets and threatens the realization of the UN's sustainable development, which is to leave no one behind (LNOB) in the agenda. The United Nations Development Program (UNDP, 2018) notes that one of the five factors that could make people 'left behind' in the agenda is their socio-economic status. When applied to the context of this discourse, it is pertinent to understand how low income or lack of financial ability would deprive people of information that has been 'commodified' and how it has implications for the overall realization of sustainable development. Therefore, this study examined the commodification of information and its implication for equitable access to information and how this in turn threatens the actualization of the UN's sustainable development.

Objectives of the Study

The specific objectives of the study are to examine the:

i.   possible justification for commodification of information
ii.   relationship between commodification and equitable access to information
iii.   commodification of information as a bane to the realization of SDGs
iv.   navigating the way forward

Methodology

The study adopted a qualitative research approach, employing the exploratory research method to examine the influence of commodification of information on equitable access to information and what this portends for the sustainable development agenda of the UN. The review of literature was systematically done using articles published in Google Scholar within a 10-year period (2014 to 2024). Thus, the search was customized by date, relevance, and language (English). The search strategy involved the use of key terms such as "commodification of information", "fee-based information services", "economics of information", equitable access to information", "access to information", and "sustainable development goals." These keywords

were combined to form search strings to produce adequate literature that explains the specific objectives of the study.

Prior to compiling articles from EBSCOhost and grey literature, the researcher carefully analyzed and incorporated the subject-related content into the study. The study was carried out overone month. Ethical standards were strictly adhered to throughout the research process, including proper citation of authors and maintaining uniformity in the presentation of study findings.

Justification for commodification of information

The concept of information as a commodity evolves from the understanding that information can be considered as a product of value that could positively alter the state of an individual. The value orientation of information triggers the need to exchange it for some forms of reward, including monetary reward or compensation. Bates in Raban et al. (2019) affirmed that information is perceived as an economic commodity for which people are willing to pay. On a different note, Raban and Mazor (2013) asserted that people are willing to pay for information products to some extent, based on an observed behavior online. The Information Has Value Frame presents dimensions of value for information, among which is the "commodity" dimension. The frame suggests that people who are information literate "value the skills, time, and effort to produce information" (ACRL, 2016), which could justify their willingness to pay for such information.

The assertion of information as a factor of production and as capital has implications for information commodification. Consequently, Tibben (2015) noted that one of the factors that contribute to information cost is the notion of information as capital, which has sunk investment cost. The author further buttressed that in order to gather and process information, a number of unrecoverable expenditures are incurred, which are more related to capital than commodities. Another property of information-as-capital is that its production cost is unaffected by the scale at which it is used. This simply indicates that once efforts are made to acquire information and create capacities to use it, it can be used several times at a low cost. Tibben (2015) thus argued that information should be considered more as a capital than as a commodity. Examining global

discourses of information, Wang and Ames (n.d.) identify four ways in which information is socially constructed: market commoditization, ethical access, social virality, and physical (dis)embodiment. Although these information cooperatives, such as Google, declare that their priority is to provide users with information freedom and choice, their actions are also motivated by a desire to make a profit. Thus, the big players in the information market, like Google, desire to make profit, which reinforces the commodification of information.

According to the study of Abdussalam et al. (2021), the goal of making information accessible globally to a vast and diversified information user base was achieved through the creation of a digital library that delivers enhanced information services and increases access and usability of digital information resources. The authors asserted that the cost of developing a digital library will likely be low, especially in countries of the Global South. The study thus found that if Nigerian libraries are to meet their digital library service goals, alternative sources of funding must be sought through fundraising schemes from library friends, rental services, consultations, collaboration efforts on library consortia, and advocacy for open access initiatives. Thus, the rental services and consultation fees suggested as alternative means of funding place a monetary value on information services and, by extension, on information. This is in a bid to initiate innovative platforms for the enhancement of information services and improvement of information access. However, this does not mean that the access is equitable, as only those that can pay for the information services will be able to access information. The study of Abdussalam et al. (2021) corroborated that of Ubogu (2019), where fee-based information service was one of the fundraising efforts (an alternative source of income) of university libraries necessitated by the enormous financial stress on these institutions amidst the quest for quality information access.

Raban et al. (2019) empirically examined the unexpected benefits of paying for information using a controlled laboratory experiment that was designed in an online environment. 106 university students participated in the study. The students were presented with a scenario meant to propel them to acquire information on a given topic under free conditions and payment conditions. The result of the study found that requiring payment for information products will reduce subsequent experience-based willingness to pay for these products. The study also revealed that requiring payment for information will result in selecting a higher proportion of

trustworthy, relevant, and multiple-position information sources. It also implied that information overload could abound if information sources are offered for free rather than when participants are required to pay for them. Other empirical studies that validate the fee-based information services are those of Igyuve and Ashaver (2014), where fee-based services were statistically proven to have significantly impacted university libraries. Moreover, that of Agustine and Rejeki (2021) revealed that there are positive and significant results between fee-based information and library technical services, and there was also a positive and significant result between fee-based information services and the library user services. Kung and Chambers (2019), in their study on the "implementation of a fee-based service model to university-affiliated researchers at the University of Alberta," concluded that implementing a fee-based service model is a potential alternative for specialized services that have not previously been provided by university libraries.

Liu et al. (2021) explore business information literacy applications of the "Information Has Value" frame from the ACRL Framework for Higher Education. The authors considered the frame using three approaches; the first approach was to consider that information has value as a commodity. This approach recruited students to assess information sources based on five descriptions based on the cost and impact derived from the source, using the Cost-Impact Matrix. The study revealed that "information that is high-cost and low-impact is "deprioritized." Information that is low-cost and low-impact is "nice to have" but not crucial to the decision-making process. Information that is low-cost and high-impact is a "quick win" and should be gathered to ensure access to the general knowledge. Finally, information that is high-cost and high-impact is a "strategic win." This information demands a lot of resources to acquire and is thus less available to competitors. It can provide an edge when making a business decision (p. 5). By implication, people are willing to pay for information that has a high impact on them rather than receive free information with little or no impact.

The commodification of information justifies the concept of fee-based services in the context of library service delivery. Nuhu and Aliyu (2022) averred that the transformation of information from a free resource to a marketable commodity in the information age has necessitated an analysis of free-based services in libraries. The authors thus empirically investigated fee-based electronic information services in Nigerian federal universities and found out that only the University of Lagos (UNILAG) has embraced the concept of fee-based on two information

service categories, which are internet access and laptop lending. Charging for such services was seen to both increase the internally generated revenue of the university and also increase the patronage of library users. By implication, people are willing to pay to have access to information through the internet because of the subjective value they perceive of the information. When they use the information services and get experience value, it tends to positively affect return intention, which reflects the increase in library usage. This could rationalize the commodification of information and its related services in the library setting.

The relationship between information commodification and equitable access to information

Equitable access to information is a state where information is equally accessible to everyone regardless of their demographic, social, and economic characteristics. It is defined by user-centeredness, freedom from barriers, and format-independent access to information and is one of the core values of librarianship (American Library Association, 2021). How this equitable access to information is affected by the commodification of information is the crux of this section. The previous section justifies the commodification of information; it is, however, pertinent to note that there are downsides to this, especially with regard to how it hampers equal access to information.

Most people in the disadvantaged socio-economic categories have limited access to information or to knowledge, which results in a state of digital divide (Igbinovia & Aiyebelehin, 2023). As such, one of the barriers to equitable access to information is the economic condition of people, and this became a barrier due to the cost implication of accessing information as a commodity. Thus, the economic barrier to information access is precipitated by the commodification of information. Also, the condition of access to scholarly literature based on the ability to pay access charges has marred equitable access to information. In this regard, only individuals or institutions that have the financial capacity and willingness to pay the access fee can acquire the information and knowledge contained in such literature, further widening the knowledge gap that exists in our modern society. In light of this, Oluwaseun (2016) opines that the commodification of scholarly literature, as well as considerable and consistent rises in its cost over the last three decades, has rendered most high-status scholarly publications out of reach for many university

libraries and individual scientists. Thus, Inefuku (2017) asserts that with the exponential growth in subscription costs for journals published in the Global North, scholars without access to well-resourced libraries or the wherewithal to pay individual subscriptions have been denied access to the scientific literature. This has caused information access discrimination, especially as some of these journals charge exorbitantly above the capacity of scholars from the Global South to afford such payment.

Lawson, Sanders, and Smith (2015) express concern about the production and dissemination of scholarly information, specifically the rising subscription costs of academic journals, which limit access to those who cannot afford such prices and effectively "provide a privileged and stratified access to this scholarly information and knowledge" (p. 2). Furthermore, they point out that in many cases, the research described in these publications and journals was supported by the government and taxpayers, raising the question of why the general public cannot freely access material when they contributed the funds to enable its creation. It is therefore noteworthy that the high commodification of scholarly information as contained in scholarly literature poses a huge barrier to equitable access to such information by members of the scholarly community.

Chair (2017) Internet use barriers from the perspectives of four African countries demonstrated that the extent of information was determined by the social and economic setting. The findings also emphasized the link between Internet access and use and the social and economic contexts of both users and non-users. The study asserted that without intervention to redress social and economic inequality in the society, there will be an amplification of digital inequality, which, among other things, hinders access to information. By implication, the high cost of information gateways and the corresponding inability to access them due to economic/financial reasons become a bane to equitable access to information. In a broader sense, beyond the individual level, HumanIPO in Pillay (2016) asserts that SMEs are unable to access the internet (and by extension, information) because South Africa is considered one of the most expensive countries. This creates a dearth of business information at the disposal of the SMEs. Although the cost of Internet access is different from the actual cost of information, the entire cost incurred in an attempt to access information could predict the equality in information access.

The Tameside Council's Digital Inclusion Report highlighted that those within the category that are economically inactive are more likely than other groups to be digitally excluded (Tameside & Glossop Inequalities Reference Group, n.d.). This is informed by the presumption that they are often times unable to bear the cost implication of information access. This places such categories of people in a disadvantageous state, widening the gap of inequality in the context of information access.

Commodification of information as a bane to the realization of SDGs

Access to information is crucial to achieving the Sustainable Development Goals. Access to information enables the public to make educated decisions, to effectively monitor and keep their government accountable, and to be aware of actions that affect their lives (UNESCO, 2020). Information is a fundamental element that is central to the realization of the UN's SDGs. Moreover, there are some of the targets that specifically focus on access to information, as seen below (Source: UNSD, 2017):

Goal 2.c: Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

Goal 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Goal 5.6.2: Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education.

Goal 9.c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

Goal 12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

Goal 16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

The goals and indicators within the SDGs framework listed above show the relevance of access to information across the agenda. Conversely, it also implies that when people do not have access to information, it threatens the actualization of sustainable development. The Inter-

Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) recognizes the growing significance of information in achieving the SDGs (Mabuie, 2021). The author added that the public should be granted free access to relevant information in order to successfully integrate the three factors (economic development, environmental protection, and social equity) that contribute to sustainable development and ensure that the goals are met. By implication, when members of the general public are unable to freely access information due to its commodification, it could compromise the chance of achieving sustainable development.

To achieve the sustainable development goals, the digital divide that exists between people and nations needs to be bridged. The World Economic Forum (2023) affirms that SDGs cannot be met without first ending the digital divide. Thus, addressing the digital divide would have a positive influence on improving the level of sustainable development (Hidalgo, 2020). The inability to access information based on the cost (especially of scholarly publications in closed-access journals) heightened the menace of the digital divide; this is common in the Global South. This, according to Inefuku (2017), places the South at a disadvantage in a global economy that has commodified information.

The effect of lack of access to information, for reasons including commodification, on the actualization of SDGs was revealed in Article 19 (2023). The article noted that the lack of access to information has an influence on progress toward achieving Goal 4 (Education) and Goal 3 (Good health and well-being). The article further noted that the lack of access to information prohibits groups at risk of prejudice from overcoming structural barriers and gaining access to education, contributing to a higher prevalence of illiteracy among these groups. Furthermore, the Tameside & Glossop Inequalities Reference Group (n.d.) affirmed that being able to access public information freely can improve people's quality of life, their health, and their economic and social outcomes. Conversely, with financial barriers to accessing public information, there will be a compromise to achieving quality life, good health, and economic and social outcomes, which are all indicators of sustainable development.

According to Osuigwe and Levey (2023), the monetization of information and knowledge through intellectual licenses makes it impossible for many teachers and students to get and afford the required learning resources. This is a barrier to providing quality education that addresses

Africa's development demands. Thus, monetization or commodification of information threatens quality education (SDG goal 4), especially in the Global South. Other than education, when information is monetized, which restricts its accessibility to only those that can afford it, it also has adverse implications for small businesses, which are the driving force of the national economy. The study of Modimogale and Kroeze (2011) shows that information access is crucial in informed decision-making processes, making it easier for SMEs to make competitive judgments. However, where such business information is behind a paywall or in a tangible form that is too costly to acquire, owners of SMEs would take decisions that are not based on quality information, which threatens the growth of this business and invariably threatens economic growth. In the same vein, Pillay (2016) asserts that SMEs' access to adequate business information results in organizational effectiveness. The author, however, stated that such quality information is beyond the reach of many SMEs in the rural areas due to the high cost of accessing such information.

Navigating the way forward

The study has earlier established the possible justification for the commodification of information primarily centered on value and quality. It, however, does not intend to contradict itself by also revealing that commodification could adversely affect equitable access to information, which undermines the realization of sustainable development. It is therefore pertinent to seek an intersection or a common ground between these concepts. It is no gainsaying that packaging information in a tangible form and digitally archiving scholarly information have cost implications; however, exploitation of information users on the grounds of value and quality should be addressed. This section therefore sought out ways forward by asking thought-provoking questions, providing assertions, and making inferences.

First, it is established that information is a key factor to achieving sustainable development. This information can be categorized into different key areas of the agenda, like health, education, agriculture, and environment. A pool of quality information sectioned into layers (subcategories) can be created and uploaded online (and regularly updated) without paywall restriction and given global visibility. Like Wikipedia, people can contribute content to the pool and update it. However, there would be a strict quality control mechanism, layering of subject matter, and

friendly search functionalities. The question is who takes on this responsibility of managing this pool—the United Nations, its affiliates, or associations related to information like IFLA? This pool of information will allow people to get free access to information of all kinds related to various aspects of life. In agreement with this assertion, Inefuku (2017) affirmed that the open access initiative Institutions should have a shared pool of information to circumvent the now normal commodification of knowledge and information. Open access is suggested as a strategy to provide equity to information consumption and to improve knowledge and development.

While suggesting the creation of a pool of information on critical areas of SDGs that can be freely accessed, it should be stated that the presence of information poverty among people does not rule out the presence of information explosion in some quarters. 'People can be thirty in an ocean of water,' implying that people need the right skill set to navigate the avalanche of information to retrieve quality information that meets their needs. Therefore, information literacy skills are needed to bridge the digital gap and ensure equitable access to information (Ferro et al., 2011; Dunn, 2010; Kgosiemang, 2016; Drossel et al., 2020). Library professional bodies/associations at national and sub-national levels could take on the burden of improving literacy skills of locals in their constituencies.

In response to the exploitation of some top-tier publishers, can we have regulations for the publishing industry put together by a regulatory body at national and sub-national levels? Can such regulations be enforced? Such a body, among other things, will be a watchdog to the exploitative tendencies of publishers, ensuring the cost of scholarly materials is at the intersection between profit margins that keep publishers in business and minimal costs that are affordable by users. Moreover, there is a need to encourage knowledge creators to explore open access outlets for publishing their manuscripts. Librarians and other stakeholders can advocate for open access publishing and lobby industries and both government and non-government organizations to sponsor publishing costs and make scholarly materials freely accessible to users. In this regard, Lawson et al. (2015) affirm that given libraries' primary duty to provide free and equal access to knowledge, the commodification of information presents both obstacles and opportunities for librarians. Librarians are thus expected to create awareness of and promote the usage of open access publications. This supports the assertion of Saunders (2015) that librarians can assist researchers in understanding the importance of open access, copyright issues, and

digital archiving in institutional repositories in order to provide free access to their intellectual outputs and break the barriers in access to information.

Conclusion

The sustainable development agenda of the United Nations is expected to inspire developmental action from all stakeholders, including those in the information industry and profession, given the necessity of information to the realization of the development goals. The first call to action is to ensure that everyone has equitable access to information, without discrimination. In ensuring this, there is a need to reconsider the commodification of information by reassessing the value concept, creating a common pool of information on SDGs, breaking paywalls to scholarly literature, and advocating for the open access initiative.

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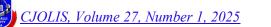
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