ABSTRACT
The South African government has emphasized the need to expand the role of media education to promote equal access, with a level of quality and relevance that will empower disadvantaged groups. However, it is a challenging, time-consuming process, as well as requiring considerable and consistent expenditure and partnerships between many donor agencies. There is little research on the causes behind unequal access to technology, or comparative studies of the barriers that impede the diffusion and adoption of media and information literacy in South Africa. It is thus not surprising that the media and information literacy component is still missing from the agenda that lists Africa’s myriad problems, as well as the absence of qualified teachers, training for the trainers and the presence of IT literacy in the curricula, all of which are essential elements for any future development. The UNESCO model of curricula could help close the digital divide and promote social inclusion. As a contribution to that goal, this study investigates some of the pertinent issues related to media and information literacy via a sample of students at the University of Cape Town. This research offers some practical solutions on how to help raise the levels of media and information literacy among the disadvantaged, in the case in South Africa.

RESUMEN
El gobierno de Sudáfrica ha realizado recientemente un enorme esfuerzo en la expansión del papel de la educación en medios, con el objeto de ofrecer un acceso equitativo y de calidad a toda la población, especialmente hacia los grupos desfavorecidos. Sin embargo, este proceso requiere tiempo y recursos ingentes y constantes, además de la necesaria colaboración de otras instituciones. Actualmente, existe en Sudáfrica escasa investigación sobre las causas de las desigualdades de acceso a la tecnología o los obstáculos que existen para la difusión y puesta en marcha de la alfabetización mediática en Sudáfrica. No es sorprendente, por ello, que entre los múltiples problemas que existen hoy en África todavía la alfabetización mediática e informacional no sea una prioridad. Siguen existiendo muchos maestros con escasos conocimientos en esta materia, la capacitación de formadores es muy pobre y su incorporación en programas de alfabetización muy anecdótica. El Currículum UNESCO MIL de Alfabetización Mediática es un reto para ayudar a superar esta brecha digital y promover la inclusión social. Con este objetivo, este estudio analiza algunas cuestiones relacionadas con la alfabetización mediática a partir de una muestra de estudiantes de la Universidad de Cape Town, proponiendo algunas soluciones prácticas sobre cómo ayudar a mejorar los niveles de alfabetización mediática e informacional en las sociedades menos favorecidas, como es el caso de Sudáfrica.

KEYWORDS / PALABRAS CLAVE
Media literacy, information literacy, community, development, prospects, digital divide, policy.
Alfabetización mediática, alfabetización informacional, comunidad, desarrollo, perspectivas, división digital, política.
1. Introduction

A historical perspective shows that the present technological revolution is transforming the social topography of our very existence. This transformation is largely facilitated by information and communication technologies (ICTs) with the ability to store, transfer, process and disseminate data (Singh, 2010).

The nature of information literacy in Africa can be determined by changing technologies. Internet can affect the degree of access to forums in terms of topics discussed, the influence these digital forums have on information literacy and the extent to which they replicate or differ from the affective and emotive manifestations of public interaction in the «real» world.

The perception that ICTs are a critical ingredient for media governance in Africa has resulted in various initiatives that are meant to strengthen civil society, assure transparency in government and make it easier for citizens, and the youth in particular, to access information, engage in democratic discourse and affect the direction of policy (Kedzie, 1997).

This dream of media and information literacy to all young people to eliminate or at least lessen educational inequalities, and the subsequent rippling effect on the workplace and society, is still too utopian to attain on practical terms (Saleh, 2003).

The accessibility of information through affordable technology can certainly empower people’s ability to be economically viable, as a result enhancing the economic growth of countries in Africa. This is clearly captured in the MIL curriculum developed by UNESCO that defines the essential competencies and skills needed to equip citizens to engage with media and information systems effectively and to develop critical thinking and life-long learning skills to socialize and become active citizens. However, the prospects and concerns of such models are directly affected by restricted budgets, as well as the absence of qualified teachers, training for the trainers and the induction of media and information literacy into the curricula, all of which remain essential elements for any social development. The lack of telecommunications infrastructures, computers and connectivity, the high costs and the absence of awareness of the possible implications, the lack of related skills and support and attitudinal barriers are all blocks to development (Ott & Rosser, 2000).

In this dim reality, media information and literacy could be the only remaining refuge to attain education progress, and offer practical solutions governance based on citizens’ participation to inform and motivate a «mass of people with a low rate of literacy and income, and the socio-economic attributes that go with it» (Hameso, 2002). This deferred dream is affected by the level of investments in technology, in computers and networks.

This general dim reality is even more pessimistic in Africa with its widening wealth gap between small, politically connected elite and the majority unemployed, homeless and impoverished masses.

Africa’s myriad of problems includes corruption, human rights violations, and internal conflict that have deemed political freedom and democracy of being a big failure and resonated with the exclusion of ethnic minorities from political processes (Rothchild, 2000).

South Africa’s present status quo is influenced by its historical memory of slavery and colonial rule, in turn delayed its educational revival, arbitrarily carved boundaries and disregarded social and natural divisions of geography and population settlement harnessed in many cases a profound national identity crisis and conflicts (Ott & Rosser, 2000).

In a recent national study that attempts to map the level of literacy in primary schools, the majority of learners in Grade (3) and Grade (6) do not read and count. For example, in the Gauteng province (70%) of the province’s Grade (3) learners was found to be illiterate.

This happens at a time that the South African government has laid enormous stress on expanding the role of media education to embrace both formal and non-formal sectors, though the process remains very time consuming and carries heavy recurrent and non-recurrent expenditures, as well as has a dire need for partnerships between many donor agencies.

Historically, very little effort was directed towards understanding the digital divide and the asymmetries of critical issues such as poverty, HIV, conflict, peace, security, education and IT literacy development (Ernst, Mystelka & Gianiatos, 1998).

In the South African case, there are a number of local hurdles; namely, teachers’ struggle to maintain their motivation levels; students’ appalling discipline and attendance; parents’ disengagement in the students’ learning environment; principals and teachers’ overwhelming with departmental admin. But the absence of concrete plans in the light of a plagued system by ad-hoc requests and regular goal-post changes in particular within the context of racial, class and gender disparities.

This research draws on the author’s experience as an educator and trainer in South Africa and the Middle East, while referring to the UNESCO Training the Trainers (TTT) in Information Literacy (IL) curriculum. This goal could incorporate interacti-
ve computer technology to meet the educational requirements of the deprived, displaced and remotely located, economically weaker population to overcome the current iceberg and enable a breakthrough in the community-building mechanisms of the internet (Quebral, 1975).

However, it is thus important to differentiate between digital divide as a theory, and repercussions of its prevalence as a technological problem between those who do and those who do not have physical access.

The significance of this divide is its bipolar explanation to internet access, where the Internet is a prerequisite for overcoming inequality in a society which dominant functions and social groups are increasingly organized around the Internet (Van Dijk, 2005).

As such, the research attempts to set the parameters of the possible effects of the use of media information and literacy to stipulate critical participation in an independent way within a shared domain in which issues could be engaged (Habermas, 1991).

To serve that goal, some of the key clues and indicators of media and information literacy are discussed, then the findings of a pilot study is evaluated of a sample of young learners in South Africa. Though findings cannot be generalized, the research might help provide some indicators on how information and media literacy stand and how these communities operate and how the youth perceive the related challenges.

2. Literature review

A critical goal of the study was to evaluate how ICT can enhance information literacy among the younger generations as a result of its possibility to offer unlimited from which democracy in the larger society can be engendered and/or reinvigorated.

History must be weighed very carefully to reassess the earlier projections of its impact as developing societies were too optimistic about the endless possibilities for communication and networking prospects (Castells, 2002).

In this section, the researcher aims to identify some of the trends and developments within the literature on the subject matter in Africa, especially in South Africa.

A departure point is to acknowledge the close connection between social and economic advancement on one hand, and the media and information literacy creation, dissemination, and utilization on the other hand (Baliamoune, 2003).

Internet penetration rates in 1997 in North America were (267) times greater than in Africa. Three years later, i.e., by October 2000, the gap had grown to a multiple of 540. Africa (14.1%) of the world population has only an estimated (2.6%) of the world Internet users.

Until March 2006, only three countries of Africa’s (57) countries (54 official and three non-official states) had an access rate higher than the worldwide internet usage rate of (15.7%) including the Reunion (25.3%), Saint Helena (20.4%), & Seychelles (23.8%) (Fuchs & Horak, 2008).

As such, media and information literacy in Africa was very slow and was severely delayed as a result of the limited infrastructure, lack of local content and the overall low-income levels.

Communities can only be empowered when they become able to take control of their local knowledge management disparities and target the groups that are most marginalized (Fuchs and Horak, 2008).

According to Mundy and Sultan information is useful «only if it is available, if the users have access to it, in
the appropriate form and language, if it is communicated, if it circulates among the various users with appropriate facilities, if it is exchanged» (Mundy & Sultan, 2001).

Several extensive studies emphasized the fact there is a very positive correlation between media and information literacy and civic engagement. According to the ITU’s (2003) «ICT Markets and Trends Report» of 2007 only (3.8%) of the world’s Internet users are situated in Africa. The report estimates (55%) of the population in Sub-Saharan Africa are unconnected without access to fixed, mobile and/or data services.

The New Partnership for African Development (NEPAD), in 2001, established with the assignment of accelerating the development of African inter-country, intra-country and global connectivity (Harindranath & Sein, 2007). However, many studies confirmed the remaining gap between those who are able to access the internet and services that have become necessary for effective citizenry and those who are not able to, has widened (Katiti, 2010).

In a study titled «The Integrated Self-Determination and Self-Efficacy Theories of ICT Training and Use: The Case of the Socio-Economically Disadvantaged» concluded that physical access through infrastructure is not enough to overcome the limited ICT penetration in Africa (Techatassanasoontorn, & Tanvisuth, 2008).

The Swedish Department of Empowerment documented the fact that infrastructural limitations on internet usage in Africa still works as a pull factor against enhancing development, but the lack of digital literacy and skills premium stand out a real iceberg blocking development among different African countries, and even within the social fabrics in Africa.

The Institute for Research on Innovation and Technology Management during the 1995-2003 period showed that countries privatizing their telecommunication sector enjoy a higher degree of media and information literacy expansion and digital freedom (Rahman, 2006).

Many studies highlighted the fact that media and information literacy could accelerate progress and bypass the processes of accumulation of human capacities and fixed investment; which in turn could help narrow the gaps in productivity and output that separate industrialized and developing countries (Steinmueller, 2001).

The World Bank has also funded many projects to serve that purpose since 1995 to improve the quality of life of Africans through media and information literacy, by implementing it as a tool to improve the socio-economic, political or cultural conditions. In addition, the Association for Progressive Communications (APC) is sponsoring a project titled «Communication for Influence in Central, East and West Africa» (CICEWA) to assess the impact of media and information literacy on maximizing development (Wanjiku, 2009).

This of course besides the «World Summit on the Information Society» (WSIS) Plan of Action that aims to connect rural villages with media and information literacy and establish community access points (Gillwald & Lisham, 2007), however, the goal of finding out the exact number of rural villages in Africa is by itself a great challenge.

It seeks to overcome the permanent barrier that exists for the implementation of media and information literacy and that lies in part in the discrepancies between ideas and theoretical models and its implementation, as well as in the existing inequalities, still a sad reality for the asymmetric generation and empowerment of specific groups (Gregson and Bucy, 2001).

For example, at the school levels a total of (68,662) students, (2,627) teachers, (217) school administrators, and (428) additional education stake-
holders in West and Central Africa participated in the study, only (17%) involved subject-specific media and information literacy for teaching and learning purposes (Karsenti & Ngamo, 2007). This happens at a time, when media and information literacy could open up opportunities for citizens to participate in the public sphere through what is described as «media participation» (Tettey, 2002).

Many studies referred to the social, ideological (racism), and economic factors that resulted with structural inequalities in South Africa. The UNHDR (2005) calculated that (34.1%) of the South African population lives on less than ($2) per day, the life expectancy at birth decreased to (49.0) years in 2000-05, the public expenditures on education decreased to (5.3%) of the GDP in 2000-02, and South Africa is listed as number (9) of countries with the highest income inequality that resulted with very high crime rate (UNHDR, 2005).

South Africa has nine provinces, three of which are considered thriving media and information literacy clusters: Gauteng, the Western Cape, and KwaZulu Natal, there is no significant relationship between telecommunication investments on the one hand and on the other hand Internet usage or PC usage. Although private annual telecommunication investment after a first increase decreased, Internet and PC usage increased in South Africa during the last decade.

In South Africa, it is given a priority on the national level to consolidate democracy and human rights through citizens’ increased accessibility to information as well as increased opportunities for communicating freely with each other on matters of civic importance (Tlabela, Roodt, Paterson & Weir-Smith, 2007). However, there are still significant challenges facing media and information literacy to reduce the differences in access between social groups, thereby extending the benefits of technology to all sectors of the grassroots (ITU, 2003).

At the end of this section, one has to be careful about the foregoing discussion support Ott’s (1998) admonishment to attenuate the utopian enthusiasm about the democratizing impact of ICTs in Africa. Nonetheless, there is minimal impact in the numbers and categories of those who engage in and hence influence the direction of information literacy on the continent. The majority of the «publics» including the new generation are the marginalized segments of society, who are still unable to rupture the nature of literacy through ICTs because of economic, language or other constraints.

3. Methodology

In this section, the research refers to some of the latest data base indicators to how media and information literacy stands in South Africa, and then taking a case study from the University of Cape Town on issues of DC++ among young elite students.

In the first stage of the analysis, data are drawn from the Internet Usage and Population Statistics of World Stats, only (6.7%) have Internet penetration in Africa, which represent (3.9%) of the total world users. In this setting, two-thirds of people reside in rural areas with less than (4%) having a fixed line telephone connection. The statistical data show that almost all African countries with very low Internet access are among the least developed countries in the world in terms of health, education, and income. As such, a close correlation between global social gaps and the global digital divide.

In table 1, one could easily correlate between clustering of low values for both Digital Access Index (DAI) and Human Development Index (HDI) in Africa. This clustering lends further weight to the idea that both the HDI and DAI have a strong spatial component.

In table 2, media and information literacy is taking a very unequal development. Internet access and experiences of new media vary in the nature of consumption giving priority to mobile phones at the

<table>
<thead>
<tr>
<th>Regions</th>
<th>Telephone line</th>
<th>Internet</th>
<th>Computers</th>
<th>Mobile</th>
</tr>
</thead>
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<td>North Africa</td>
<td>38</td>
<td>3</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>Sub-Saharan</td>
<td>12</td>
<td>1.4</td>
<td>1</td>
<td>5</td>
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</table>

Table 1: Internet users and population statistics for Africa (US Census Bureau, 2009).
expense of Internet access and computers. Hence, the socioeconomic status in Africa is an important predictor of how people are incorporating the Web into their everyday lives and even with regard to the nature of these activities.

In table 3, statistics indicate a strong correlation between the ability of individuals in a country to adopt media and information literacy and the level of development in the same country or region. This finding supports the statistical hypothesis between development and information and communication technologies.

And in the second stage, a pilot study is based on a sample of UCT students, who were surveyed to question their knowledge, perception of the possibilities, and challenges facing media and information literacy. It is a multi-method approach mixing surveys (120 subjects) and intensive interviews. It was very high response rate, as (100) respondents gave back the survey.

In many youth circles, DC++ has become a reality, which simply means is a free and open-source, peer-to-peer file-sharing client that can be used to connect to the Direct Connect network or to the ADC protocol. Modified versions of DC++, based on DC++’s source code were developed for specialized communities (e.g. music-sharing communities), or in order to support specific experimental features (Ullner, 2008).

In this initial stage of the research application, a purposive non-probability sample was drawn from students in the University of Cape Town (UCT) in different faculties among graduate and undergraduate students to engage in piracy while being DC++ users. The study was conducted in April 2011.

In figure 1, findings indicated that (80%) of the sample had access with a majority of speaking English (56%), while (50%) were white from the faculty of humanities (31%), and (26%) from the faculty of Engineering.

In figure 2, findings indicated that the majority of the students (46%) had moderate knowledge of DC++, while only (15%) are in the high knowledge category.

In figure 3, findings indicated that (61%) of the students were generally users. The resulted emphasized that only (21%) used DC++ on daily bases, while the majority (35%) used it once a month.

In figure 4, findings indicated that (90%) of the students used unlicensed items, while (97%) of the sample indicated that they used unlicensed items as a result of cost reasons.

In figure 5, findings projected a split between the students who agreed to implement any deterring (53%), while (47%) disagreed. Besides, the sample had a divergence on the reasons for deterring as (70%) relate to person downloading, while (67%) admitted of their conscious awareness of the violations.

The regression results of the tables have the expected sign with the exception of the openness variable, which has a negative coefficient in most of the estimations. As such, the information literacy variables as in the case of (DC++) variable generally has a negative coefficient that complies with the findings of many previous studies in that regard such as that of Thompson and Rushing (1999) who indicated that strengthening patent protection has a positive effect only in countries that have a high GDP per capita (above $4000.00). The results suggest an urgent need for absorptive capacity policies among youth, by investing in educa-
tion, information and communications technology, while advocating for relevant ideas of information property rights.

Though, findings cannot be generalized, the research stands out as a pilot study to set he scene with regard to media and information literacy levels of awareness, motivations and assessment among students, who are privileged elite and minority having internet access and skills. The main criteria for the sample selection were: UCT students, who access and use their computers on daily bases.

4. Discussion

This research has explored the emergence and interpretation of ICT among young learners in the ‘new’ South Africa. Through utilising a framework of contrasting «goals» and «tools», it has sought to expose the shortcomings and contradictions in the implementation of ICT among youth as a result of either government legislation and the vagueness of rhetoric targeted at the implementation of ICT policy.

Having young students, in particular in Africa, being media literate is essential to achieve any economic, social and political development. If the youth are information literate, then they will be able to locate and use it to acquire more skills and competencies.

But one of the major problems is that incorporating media and information literacy has not been put in place policies and mechanisms to address the serious information gaps that exist as a result of the limited ability to locate and use effectively the information in the media to serve the disadvantaged majority.

Media have to restore their original feisty, robust, fearless mission, by offering discourse that can be trusted with a continuous process of inclusion of all societal colors to complement the curricula that have been based on wrong information with the aim bridging the digital divide.

Media and information literacy not only requires gathering reams of statistics from teachers that cannot improve literacy, but also increases the quality of teachers’ time with students. In that regard, fudging the «matric pass rate» statistics annually may make certain individuals look good but it clearly does not measure knowledge, literacy or numeracy currently.

It is also very common in many of the African countries including South Africa of either not reading carefully the statistics, or trying to project a positive frame about the country that is motivated, by pride, or lack of knowledge, or even clash of interest.

The different indicators emphasized the close links and connections between the improvement of media and information literacy and education on one hand, and with the improvement of teacher quality and on metrics that count on the other hand (Saleh, 2009).

On the micro levels, media and information lite-
racy could provide a road map of how to stimulate social progress, yet it remains in the domain of the rich and business or military elites. And on the macro levels, it remained as one of the key areas where the post-apartheid government has failed miserably to date. Until the value of education becomes ingrained in South African culture, the mentality of entitlement without effort will prevail until further notice.

So far, the South Africa rushed into implementing media and information literacy models without assessing and understanding their impacts at the recipient level that resulted from not considering the localization and domestication of their implementation. This unplanned incorporation of media and information literacy with the curricula is an outcome of the usual mobility restrictions, attitudes towards women, education and religious influences, especially at the community level where such social constraints are critical.

South Africa stands in a dire need for low-cost alternatives to conventional education (in terms of recurrent and non-recurrent budgetary inputs) that could be effective in quickly bringing in curricular reforms. This can be mostly based on print materials and interfacing or interactive (or contact) sessions, or the conventional means of curriculum development that might help domestication of the UNESCO model to fit the local challenges.

It is thus strongly recommended to set up alternative and innovative approaches to improve the media and information literacy culture through the orientation of citizens with affordable, appropriate and accessible options of technologies.

Practice-based research is also pertinent to attain the goal, by creating the knowledge, expertise and ethics involved as in the case of DC++ to implement deterring factors to help raise the bar of competencies of young learners.

The pilot study has projected a general trend of indecision about punishment for copyright infringement, though the majority of the sample linked the economic factor not just the direct digital skills needed to follow this educational model.

A number of policy recommendations are needed to attain the goal of mass engagement of media and information literacy in South Africa:

1) Policies should attempt to overcome current impediments facing coherence among national policies, by emphasizing its significance in the public agenda to provide the requirements, create the suitable environment and discuss the possibilities of domestication or localization.

2) Increase effective administration, transparency and public participation through information sharing within each country, including freedom of expression and support for consumer awareness groups.

3) Goal-oriented policies toward educational and workforce openness and tolerance in order to stimulate greater labor force participation of women, improve educational and training opportunities for the majority of the disadvantaged black and colored communities in South Africa.

4) Stipulate educational access and infrastructures with a focus on digital literacy at the primary level and research creativities.

5) Build up strategies that are based on reading and using the database that can help include the marginal groups after defining and understanding their differences of race, color and gender related challenges in the South African society.

6) Identify connectors in local communities to find solutions based on understanding and appreciation of the differences.

But the challenge remains in how to create engagement and community-based leadership in giving high priority to educational improvement programs and providing the necessary resources, expertise, skills, motivations and access to succeed in accordance with the Millennium Development Goals (MDGs). Scarce public funds need to be complemented by maximum mobilization of private investment, through the establishment and sustainability of a welcoming environment for private initiative and risk-taking that could boost access by the poor to media and information literacy services and opportunities.

At the end, training around MIL therefore has got huge potential in enhancing the participation of the generations to come in South Africa and other developing societies in the information society. Media and information literacy remains hanging in the air between hopes of progress and dopes of harsh reality.

Notes

1 The Digital Access Index (DAI) measures the overall ability of individuals in a country to access and use new ICTs. DAI is built on four fundamental vectors that impact a country’s ability to access ICTs: infrastructure, affordability, knowledge and quality and actual usage of ICTs. It allows the cross examination of peers through a transparent and globally measurable way of tracking progress towards improving access to ICTs.

2 The Human Development Index (HDI) is a comparative measure of life expectancy, literacy, education and standards of living for countries worldwide, by identifying the level of development and measuring the impact of economic policies on quality of life.

3 Free and open-source, peer-to-peer file-sharing client connects to the Direct Connect network the rapid proliferation of peer-to-peer networks has created a new channel for digital sharing.
References


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