NEW LITERACIES FOR DIGITAL CITIZENSHIP

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Abstract
The meaning of citizenship has usually been associated with the power of individuals in the process of social decision-making. Throughout the history, effective citizenship has required functional literacy skills as the fundamental factor for attending societal life. In the past, the 3Rs (writing, reading, and arithmetic) were considered to be enough for a normal citizen because people could communicate satisfactorily based on these skills in public spheres. They could also benefit through traditional literacy skills from the mainstream communication technologies like newspaper, radio, and television. Depending on the linear characteristic of the mass media, participation of citizens was limited in the social arena. However, new communication technologies have changed the nature and scope of citizenship. New kinds of literacies have emerged regarding the new media such as Internet, Web, Twitter, blogs, YouTube, Facebook, mobile technologies and so forth. Today's citizens are expected to attend social processes anytime and anywhere. Thus, they are required to have mastery in new literacies which allow them to use all kinds of emerging technologies to share their views and make their voices heard. In fact, this comes as a requisite for real democracy because digital citizenship is largely based on the contemporary literacy skills in which the technology plays a vital role. This paper elaborates various kinds of new literacies and discusses their relationships with the current practices of digital citizenship from a technological perspective.

Introduction
The meaning of citizenship has usually been associated with the power of individuals in the process of social decision-making. Social decision making has always required appropriate skills both for accessing to information and processing the obtained information since the ancient age. In the digital age of the current times, the forms of the information have changed drastically. Considering the potential of the new information and communication technologies (ICTs), skills such as reaching, interpreting, understanding, and sharing information have become fundamental responsibilities of citizens for a democratic society (Aufderheide, 1993; Christ & Potter, 1998).

Nowadays everything is changing quickly and people feel obligated to keep pace with these changes. Why Drucker called the changes as “shock” should be questioned in this perspective. Information is an integral part of daily life in today's society in order to survive against information-related requirements. Production of knowledge requires different skills than those necessary for producing goods. Thus, the concept of shock could be interpreted partly as the feelings or the confusions of the people, being aware of not having the necessary skills for the new literacies. Kress (2010, p.6) remarked that the communications practices transformed from reading and writing to designing and distributing. The content is being displayed with multimodality, combining text, image, motion, sound, music etc. Nowadays screens substitute book pages of the past so that image has gained popularity instead of text. Consistent with this trend in the ICT field, social relations and structure of the authority have changed at a great extent.

The attitudes towards information have also changed. People have become addicted to information. Readers as the audience have become digital users. Information processing has been transformed from being passive receivers to active information users, who must engage, construct, respond, and act with information. These new skills have changed the form of information flow in such a way to have greater impact on the life of individuals, the meaning of citizenship, and common practices of democracy (Knight Commission Report, 2009). Overcoming this challenging shock requires employing corresponding literacies with digital technologies during citizenship practices.

Theories of Technology and New Literacies
The changes in the new technologies and their effects are strongly related to the change of the age, forms of production, and the nature of society. In order to understand the effect of new technologies on citizenship, the subject should be observed through different approaches to technological development. Related views are grouped as autonomous technology theories, technological determinism, political selection approach, and critical views towards technology (Timisi, 2003, p.33). Autonomous technology theories give importance to the technology itself. Technology has a different development logic, and people do not have an impact on it. Possible interactions between technology and society are neglected in this view. Technological determinism defends the idea that technological development itself has created social changes. This approach has been criticized to give all the credit and responsibility in social change to the technology by neglecting the contributions of people, society, context, politics, and history. According to the political selection approach, technology has been determined by political forces and capitalist needs. Technology in this view has progressed based on preferred needs and uses. Finally, critical approaches focus on the effect of technologies on people, including the hegemonic relationships. They highlighted mostly the negative consequences of the new technologies on culture and society. Technology is claimed to hide reality by mass communication devices. Mass communication has a tradition to see people as passive users so that they create false consciousness. Technology and science aimed to serve interests of the capital instead of needs of the population.

These technology theories interact with certain kinds of new literacies. In fact, new literacies are intact with new technologies. New literacies could be explored by three main approaches, namely by their technological characteristics, social characteristics, and ideological characteristics. The first one focuses on the capacity of new technologies, the second is interested in the uses and implications of new technologies, and the third one pays critical attention to their effects on the beliefs, behaviors, attitudes, ideologies, social structures, cultures etc. Sometimes it is not easy to separate these three approaches because of their integrated and interactive structures. The reasons for various uses of the technology could be changed by cultures. Sometimes technology creates certain changes over the society. Thus, all the new literacy approaches will be discussed here with an emphasis on digital citizenship.

Characteristics of New Literacies
The word literacy comes from the root “literature” and “literate.” The word literature was defined “to mean being discerning and knowledgeable (adjective), and a body of writing of nationally-acknowledged aesthetic merit (noun).” According to Luke (1989, p.188), the word literature was changed as literary and literacy at the end of the nineteenth century respectively, under the discussions of being literate.
and being literary had different meanings. The term literacy has become popular instead of literary (cited in Livingstone, Van Couvering, & Thumin, 2008).

Before the Internet, main information resources were newspapers, books, radio, television, films etc. These information resources shaped or affected decision making process in order to fulfill the citizenship responsibilities and exercise democratic rights. They mostly focused on understanding printed and audiosvisual messages. Thus, the literacy they required was often called “print literacy” and “media literacy.” As information technologies have changed rapidly especially with the emergence of the Internet and other related applications like Web, Twitter, blogs, YouTube, Facebook, mobile technologies etc., new multimodal information forms have been created. Because traditional literacy could not meet the requirements of the digital age, more complicated skills are needed in the name of new literacies. In the digital age, it is a requisite to understand and use the capacity of new information and communication technologies.

Gilster (1997) defined basic skills for digital literacies as assembling knowledge, evaluating information, searching, and navigating in non-linear routes. Hobbs (2008) underlined the importance of ethical responsibilities and self-confidence for new literacies. In addition to some skills and ethics, digital literacy also covers knowledge and creative products in the digital environments (Calvani, Cartelli, Fini, & Ranieri, 2008; Jewitt, 2008). Based on these discussions, Covello (2010) grouped the subdisciplines of the digital literacies as information literacy, computer literacy, media literacy, communication literacy, visual literacy, technology literacy. The concept of digital literacy may be considered the sum of all these literacies.

New kinds of literacies have emerged regarding the new media such as Internet, Web, Twitter, blogs, YouTube, Facebook, mobile technologies and so forth with Web 2.0 development. New literacies differ from the previous ones, due to their operational, interactive and user-based technological characteristics. The development of Web 2.0 has changed the information flow activity from one direction to multi directions. Information is not passively received anymore. Users have more control and interaction opportunities over the information. The term publishing has been changed as participation in information-sharing process. Audiences become participants (Şimşek, 2012). The control over the data has increased. Moreover, all the applications were freely accessible (O’Reilly, 2009). Numerical representation of data (digits 0–1), modularity of the information units (sound and image could be separated), automatization (less effort for digital information), variability (different versions of the same message), transcoding (different formats of digital messages) are the core of the Web 2.0 applications (Manovich, 2001).

Social characteristics of the new media were defined by Public Media 2.0, which is one of the recent American University Center reports for social media. These are: choice, conversation, curation, creation, and collaboration. Choice is one of the important debates on old mass media. Digital media is synchronous, enabling to access whenever one likes and whatever one wants. From the hypodermic needle view, a big advance is pursued by handover in the control over information to users. Now every digital user could have their hypodermic needles. They could explore, compare, discuss, or create the contents and shape their choices/decisions. Conversations are enabled by discussions, comments, blogs, ranking etc. Curation includes aggregating, sharing, ranking, tagging, reposting, juxtaposing, and critiquing content using Web 2.0 applications. In other words, creation, sharing, and evaluation of a digital content are possible. Creation of the new media product is not so hard and becomes a part of the daily life. Collaboration implies different roles during the production of digital information process (Knight Commission Report, 2009, p.40).

Dede (2009) delineated a category system for current Web 2.0 tools, which has important implications for digital citizenship:

1. Sharing
   - Communal bookmarking
   - Photo/video sharing
   - Social networking
   - Writers’ workshops/fanfiction

2. Thinking
   - Blogs
   - Podcasts
   - Online discussion forums

3. Co-Creating
   - Wikis/collaborative file creation
   - Mashups/collaborative media creation
   - Collaborative social change communities

Jenkins, Clinton, Purushotma, Robinson, and Weigel (2006, p.4) delineate a set of novel literacies based on new media. One should keep in mind that most of these skills or competencies have never been a part or component of traditional literacies (cited in Dede, 2010).

- **Play**: The capacity to experiment with one’s surroundings as a form of problem-solving
- **Performance**: The ability to adopt alternative identities for the purpose of improvisation and discovery
- **Simulation**: The ability to interpret and construct dynamic models of real-world processes
- **Appropriation**: The ability to meaningfully sample and remix media content
- **Multitasking**: The ability to scan one’s environment and shift focus as needed to salient details.
- **Distributed cognition**: The ability to interact meaningfully with tools that expand mental capacities
- **Collective intelligence**: The ability to pool knowledge and compare notes with others toward a common goal
- **Judgment**: The ability to evaluate the reliability and credibility of different information sources
- **Transmedia navigation**: The ability to follow the flow of stories and information across multiple modalities
- **Networking**: The ability to search for, synthesize, and disseminate information
- **Negotiation**: The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms

**Interaction of New Literacies and Digital Citizenship**

Williams (1989) defined information as a power to be free, creative, and entrepreneur (cited in Şimşek, 2000, p.220). People who hold information have been privileged almost throughout the history. Modern technologies and new literacies changed the hierarchical structure of the information flow as creating network society. Traditional media literacy issues often focused on advertising and consumerism; the quality of news and journalism; media ownership and consolidation; media violence and behavior; the representation of gender, class and race; and media’s impact on public health and well-being. Current research embodies the capacity of creativity, learning, and social connectedness of Internet along with digital media by new literacies (Hobbs & Jensen, 2009). The free flow of information through new technologies is consistent with the requirements of deliberative democracy and corresponding citizenship practices. People need relevant and credible information in order to be free and make self-governing decisions.
Hobbs and Jensen (2009) defined both ‘digital citizenship’ and ‘new media literacies’ as ‘the skills and knowledge needed to be effective in the increasingly social media environment, where the distinctions between producer and consumer have evaporated and the blurring between public and private worlds create new ethical challenges and opportunities for children, young people, and adults’. Both of them serve as mediators for democratic citizenship instead of being a passive media audience.

It could be inferred that digital citizenship and new media literacies are not easily separable. They meet on the point of new skills. Generally, there is a tendency to accept digital citizenship as a result of the new literacies. It is only partly true. One can be competent in new literacies but not use these skills for citizenship practices. New literacies provide opportunities to be more informed and participative. The potential of new literacies does not guarantee democratic citizenship practices. In other words, democratic citizenship is a wider concept which includes new literacies.

In order to understand the interaction between new literacies and democratic citizenship, the latter also should be more deeply examined. Citizenship is an old term implying the relationship between individual and the state. Digital citizenship emphasizes being active and possessing democratic values compared to passive citizenship depending on mass media for information.

Digital citizenship is generally defined as “the norms of behavior with regard to technology use”. Digital citizenship includes being aware of technology-related ethical, societal, and cultural issues, being able to use web applications, and being able to use these technologies for self-development like digital learning practices (Bailey, & Ross, 2004). E-government applications create a society living in a communicational action world as suggested by Habermas. It should be carefully discussed whether new public sphere could have been created via skills of new literacies.

Discussion opportunities give citizens to convey their opinions. In democratic systems, everybody is expected to combine cognitive, affective, psycho-social, and technological skills. The interaction of these skills produces an ideal digital citizen for the 21st century (Dede, 2010).

Ribble, Bailey, and Ross (2004) also underlined the term of digital citizenship. Digital citizenship has been evaluated in terms of both citizenship practices and the issues of technology use. Nine general domains constitute digital citizenship. These are the following:

- **Education:** Electronic standards of conduct or procedure
- **Communication:** Electronic exchange of information
- **Access:** The process of teaching and learning about technology and the use of technology
- **Commerce:** Electronic buying and selling of goods
- **Responsibility:** Electronic responsibility for actions and deeds
- **Rights:** Those freedoms extended to everyone in a digital world
- **Safety:** Physical well-being in a digital technology world
- **Security:** Electronic precautions to guarantee safety

Digital citizenship has both some supporters and opponents in terms of the paradigms of technology. The technological theories focus on capacity of teaching and learning via the new literacies in order to perform citizenship requirements. Ideological theories question individual and system interests by using new technologies. Social theories focus on the behaviors and sociological change.

From the supporters’ side, digital citizenship practices facilitate life for both the state and the individual by their technological characteristics. Through e-government applications, citizens could pay taxes, traffic fines, perform other tasks related to governmental affairs. Citizens could get information about services, payments, applications, protests, and various views. Libraries and museums could be used. Discussion opportunities give citizens to convey their opinions.

These social characteristics of the new media have a potential to serve an ideological platform in order to adjust democratic values and develop citizenship practices. Participation, shared views, discussions, and debates bring to mind whether these Web 2.0 applications could create a society living in a communication action world as suggested by Habermas. It should be carefully discussed whether new public sphere could have been created via skills of new literacies.

Ideal public sphere should be open to everyone. Appropriate conditions and equal power relations are needed to accomplish this ideal. Because technology is not neutral and usually defends the hidden powers, the only solution of the society is restarting ideological criticism which took place during the end of the 19th century in France (Oskay, 2000). Electronic-based criticism aims at creating a more liberal and enlightened society by considering the hidden pressures and determining the real interest with complex information processing. If one is curious about some technology issues, he/she should take into account the cultural and economic relations (Geuss, 2002).

Democracy needs a participatory culture. People are expected to be interested in their citizenship responsibilities. They should be informed about economy, international relations, educational issues, and other functions of the governments. Informed communities could easily communicate, coordinate, discuss, and solve problems as well as making more valuable decisions during selections and daily life activities like housing, entertainment, taxing etc. Digital citizenship could create a more transparent and connected democratic environment.

Some democratic values are indispensable for democratic citizenship. Knight Commission Report (2009) summarizes these values as openness, inclusion, participation, empowerment, common pursuit of truth and the public interest. Openness implies that everybody could reach information which supports the civic and personal decisions. Inclusion means everybody’s interests and views are covered and they could accommodate their needs. Participation refers to the encouragements about joining and using information systems for civic as well as individual issues. Empowerment is related to the personal and community development by following their talents, interests, and dreams. Common pursuit of truth and the public interest create a form of decision making process by differentiating the overall quality of the information. They require assigning importance to public welfare. Information flow and hierarchical differences in the new literacies enable to democratic values be more easily adopted.

These democratic culture and values are strongly related with digital literacy skills. Citizens could be aware of their environment by appropriately creating, using, responding, sharing, achieving, and new forwarding contents. Democratic participation and active citizenship are developed by multimodal and multifaceted channels. Lifelong learning and personal fulfillment opportunities may be improved by new literacies. It is important to note that informed, participatory, critical, expressive, ethical, and creative individuals make democratic society a reality (Livingstone, Van Couvering, & Thumin, 2008).

The relationship between digital citizenship and new literacies are reciprocal. The required skills are almost identical. Additionally, democratic values needed for the citizenship are not different for new literacies. Democratic values could be acquired by new literacies. New literacies are prerequisite for digital citizenship. New literacies increase the availability of relevant and credible information and broaden the capacity of individuals to get, share, compare, and contextualize information by developing new skills. In democratic systems, everybody is expected to have equal opportunity to communicate and share their views with others (Knight Commission Report, 2009, p.17).
Required Skills for New Literacies as a Part of Digital Citizenship

Internet and related applications provide ready-made programs and networks to construct, utilize, and disseminate information instead of struggling for preparing such programs. New literacies stressed mostly user-generated content employing technologies like Facebook, YouTube, and Twitter appropriately to access, navigate, discuss, interpret, produce and disseminate new multimedia-based messages. Luke (1999) notified some skills in this regard: being able to read and interpret images in a media-text, symbol saturated environment, multimodal configurations and to be able to construct, control, and manipulate visual texts and symbols (cited in Jewitt, 2008).

Citizenship skills in the digital world are defined by educators as: (1) technical skills; (2) communication skills; (3) skills in acquiring and using information; (4) consumer skills; (5) influence on information society policy. Individuals who are at digital divide risk group were determined as middle-aged and older people, adult population not actively employed, and special-needs groups (Finish Ministry of Education, 2000). More specifically, literacy skills for digital citizenship can be listed as the following:

- Linking and decomposing elements in a text (Bolter, 1999; Lemke, 1998; Beavis, 2006)
- Interpretation of multimodal configurations (Kress, 2003)
- Navigating pathways for the changing structure of texts
- The manipulation of texts (e.g. annotation, elaborating, and tagging)
- Searching and authenticating key information
- Remaking, mashing, and remixing in the digital multimodal mediascape
- Information management and reduction in a variety of settings

These skills help creating connections across time and space (as well as experiences) and enable narratives to be circulated, shared, reused, and further transformed. In this way, new technologies can offer tools for manipulating information in ways that significantly re-shape knowledge – what is to be learnt as well as how it is to be learnt (Price and Rogers, 2003). Students in the classroom (as elsewhere) are engaged in making complex decisions about what mode to use, and how best to design multimodal configurations. Even very young children are engaged in both the consumption and the production of photography and film at home. Digital artifacts are key to the production of the family through the mediation of family activities, the recording of the family, as well as the construction of young people as literate (Marsh, 2006). Ways of describing and theorizing the broader set of practices of remaking, “mashing” and “remixing” in the digital multimodal mediascape are also required. Children and young people have limited access to forms of production and dissemination in educational contexts. However, when such technologies are co-opted by school, they are often used in reductive ways by students and adapted to fit with existing school practices (Lankshear & Knobel, 2003, Owen, Grant, Sayers, & Facer, 2006; Sefton-Green & Sinkerman, 2006).

There is not an ideal world in which new media and democracy interacted. Information, broadband, literacy and participation gaps are main problems in the digital citizenship activities. Information gaps occur when individuals do not have equal chances to access and use Internet as well as Web-based applications. Information ecology is a term symbolizing the accommodation of meeting individual and social information needs. It is also related to openness, inclusion, participation, and empowerment which are major democratic values. Broadband gap is an issue related to speed of the Internet service. Literacy gap points not to having some skills. Individuals lacking basic skills are not expected to acquire more advanced skills. They will experience problems with the new digital applications for effective citizenship. Participation gap is the final issue for citizenship practices. It refers to the degree of access to new media technologies at home. Thus, digital citizenship and new literacies both need supporting public policies and individual responsibilities to generate necessary competencies.

References


