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DIGITAL LITERACY AND ACTIVE CITIZENSHIP FROM THE PERSPECTIVE OF CRITICAL FEMINIST PEDAGOGY

INTRODUCTION

The advent of new technologies has profoundly transformed the face of cities in many ways: from simplifying media to improving the quality of urban life, from the immediacy of human relationships to the advent of digital natives. Not only that, the era of information has contributed to the creation of a new category of individual skills, namely digital skills, whose promotion is one of the objectives of the Digital Agenda for Italy (ADI), covered by the Europe 2020 Strategy (2010).

Specifically, the European program established the smart, sustainable and socially inclusive growth plan, based on high employment rates and supported by social and territorial cohesion. These are goals which must necessarily be translated into concrete actions, especially if we look closely at digital skills in the Italian context. Therefore, the use of Information and Communications Technologies (ICT) is a pivotal point for the development of the country, called upon to promote ever-greater levels of expertise and livability, meeting the needs of the cities and their citizens.

In Italy, the most recent data[1] show that, regarding the use of the internet, age is still the main discriminating factor: young people use it more (over 91% of people 15-24 years old), but an increase is also signifi-

1 Istat, *Cittadini, imprese e nuove tecnologie*, Roma 2016.

cant among 60-64 year-olds (from 45.9% to 52.2%), especially among women of this age range. In general, gender differences remain strong but they are decreasing over time; the gap in favour of men was 11 percentage points in 2010, 9.2 in 2015 and 8.6 in 2016. These differences are particularly evident after 44 years of age, while among the youngest they are annulled (11-17 years old). With regard to digital skills, ISTAT data shows that the majority of users have a basic (35.1%) or low (33.3%) level.

In the current European scenario, recent socio-economic changes originating from the financial crisis (such as rising immigration flows, rising youth unemployment and increasing social inequalities) have stimulated important reflections on internal policies and in particular on those related to urbanization. Smart cities have emerged in this framework, that is, cities that respond intelligently to contingent urban issues[2], with the help of modern ICT. Therefore, digital literacy is an important requirement for social inclusion, but, at the same time, it can also be a discriminating factor for those who do not actively participate in information culture.

The digital divide phenomenon, defined around the second half of the 1990s as the gap between people who have access to the internet and those who are excluded[3], is now being redefined in the form of various digital divides. In other words, we have moved from the awareness of the existence of a gap in internet access, to the awareness of different gaps in the use of technology, which is even more relevant if considered in relation to gender and to the implications it may have on participatory and social processes. For all these reasons, ADI identifies women's access to new technologies as one of the most important measures for the country's growth, especially if we think of gender inequalities, which are still strong in Italy, placing women in a disadvantaged position both in terms of employment and remuneration, and in terms of protection

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2 R.G. Hollands, *Will the real smart city please stand up?*, in "City", Vol. 12, 3, 2008, pp. 303-320.
3 P. Corti, C. La Capria and G. Merlo, *Dentro o fuori. Il divario sociale in internet*, Guerini e Associati, Milano 2005.

of socio-economic conditions in general[4] [5]. Therefore, the realization of smarter cities and communities cannot ignore the consideration of women's needs, and gender mainstreaming must steer smart transformations of urban contexts[6]. Technological progress, networking and digitalization are powerful tools for democratization and empowerment for women, which, if adequately supported and facilitated, can be used to reduce the gender gap, not only in access to the digital field, but in all areas of the social sphere. Moreover, in this perspective, formal educational contexts play an important role in fostering inclusion and social sharing processes, starting from the overcoming of the digital divide, an indicator of inequality in relation to the level of access and use of new technologies, which particularly affects the categories more at risk of social exclusion. Decreasing the digital divide may prove to be a prerequisite to decreasing the knowledge divide and to diminishing the global social disadvantage of women, which would result in an improvement in overall quality of life[7].

WOMEN AND THE DIGITAL. AT THE ORIGIN OF THE GENDER DIGITAL DIVIDE

The androcentric vision of science has for a long time generated the idea of a presumed neutrality which, becoming embedded in Western culture, has determined the reproduction of historical dichotomies such as nature-culture, reason-sentiment, to the point of producing the power-subordination dichotomy in the relationship between genders. Such constructs have conveyed the false belief that what is scientific presents typically male canons, as it is associated with power, and what is natural has female characteristics, since it is associated with vulnerability and passivity. An awareness of such inequalities is the key to understanding how modern scientific thought has developed[8]. Capitalist society has

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4 Istat, *UrBes 2015. Il benessere equo e sostenibile nelle città*, Roma 2015.
5 A. Barresi and G. Pultrone, *European strategies for smarter cities*, in "Tema. Journal of Land Use, Mobility and Environment", 1, 2013, pp. 61-72.
6 G. Pultrone, *Sfide di "genere" per smart cities più umane fra teoria, prassi e auspicabili scenari future*, in "Territorio della Ricerca su Insediamenti e Ambiente", 10, 2013, pp. 59-70.
7 L. Sartori, *Il divario digitale. Internet e le nuove diseguaglianze sociali*, Il Mulino, Bologna 2006.
8 J. Wajcman, *Technofeminism*, Polity Press, Oxford 2004.

exacerbated these dichotomies, in order to polarize male and female categories, by matching them to the growing split between public (working) and private (domestic) spheres. The feminine expertise in the field of the so-called STEM (Science, Technology, Engineering and Mathematics) disciplines is still affected by the weight of the patriarchal culture that has transmitted a stereotyped education to males and females, influencing desires and preferences according to roles defined on the basis of sex[9]. As a result, boys and girls today find themselves choosing courses of study that they consider more akin to their own "innate" interests and inclinations. Whereas "It is the educators, and in the first place the parents, those who have the responsibility of not perpetuating a ridiculous discrimination, harmful to science and human dignity; not to remove, with their prejudices and their inadequacy, the future conditions of women from the opportunity of a fascinating career, of a great intellectual adventure and of a full and gratifying realization of oneself"[10].

Actually, the Anglo-Saxon Feminist Technology Studies research line shows us that education as a cultural product has the power to influence the subject's attitudes[11] [12]. This body of literature, in providing a genre reading of smart cities, has contributed to the construction of a dynamic and multiple vision of feminism that has begun to look at technologies, in particular ICT (Information and Communication Technologies), as potential sources of assumption of power for women and transformation of relations between genders. In particular, the current of cyberfeminism, embodied by Donna Haraway, considers technologies, in particular digital ones, in their effects of reduction and attenuation of distinctions between male and female, giving subjects new possibilities of movement through different identities, even remaining in the anonymity or through the choice and construction of virtual, fictitious identities.

9 E. Gianini Belotti, *Dalla parte delle bambine. L'influenza dei condizionamenti sociali nella formazione del ruolo femminile nei primi anni di vita*, Feltrinelli, Milano 1973.

10 G. Lolli, *La crisalide e la farfalla. Donne e matematica*, Bollati Boringhieri, Torino 2000.

11 D.J. Haraway, *Manifesto Cyborg. Donne, tecnologie e biopolitiche del corpo*, Feltrinelli, Milano 1995.

12 Plant S., *Zeros and Ones: Digital Women and the New Technoculture*, Fourth Estate, London 1998.

The ISTAT multi-purpose survey[13] provides a promising picture of female e-skills in Italy. Therefore, the gender digital divide is decreasing: if, in 2005, men who used the PC were 11.7% more than women, in the last survey the gap was reduced to 9.4% and similar data is recorded with regard to Internet connections, with a gap that has increased over the years from 10.1% to 9.5%. But it is above all among the young that the gender gap is almost completely canceled. In fact, the percentage of PC and Internet usage is higher for girls in the 11-14 age group and practically the same for boys and girls in the 15-24 age group. According to more ISTAT recent data[14], this increase in female digital skills seems to be attributable to greater digital literacy and higher levels of female education.

Greater familiarity with digital environments (in other words digital fluency) is an important factor for democratization for women, as well as for self-determination and empowerment. Not only that, overcoming the gender digital divide would lead to the elimination of those forms of gender inequality in the workplace and in society. Moreover, it is important to consider in a systemic perspective the action of politics, education and families as a single large operating mechanism in order to guarantee equal opportunities in a substantial and not just a formal sense.

Therefore, by overcoming a linear logic in order to look towards a circular one, we can think of technology as neither good nor bad, and not as neutral, but complex, contemplating new kinds of relationships and involving a renewed awareness of communicative and participative processes as well as of the dynamics of power. It is necessary to overcome the presumption of a unique model for everyone which, effectively, tends toward the homologation and hierarchization of all the differences by conforming them to a dominion of one.

The spread of ICT seems to increase the power of technology to an even greater extent when, at the same time, the power of those who have the ability to exploit it grows. New technologies are not only tools to use, but

13 Istat, *Come cambia la vita delle donne 2004-2014*, Roma 2015.
14 Istat, *Cittadini, imprese e nuove tecnologie*, Roma 2016.

new processes to develop and govern[15]. Considering that technology and society are closely connected and technological change is determined by the social circumstances in which it occurs, feminism, from the 1970s, already denounced the invalidity of the conception of science and technology as autonomous and objective fields of knowledge, anticipating the gender perspective.

FOR AN ACTIVE AND AWARE CITIZENSHIP. THE APPROACH OF CRITICAL FEMINIST PEDAGOGY

As stated so far, the alleged "technology neutrality", which actually hides a male symbolic order, elaborated by men for men[16], opens up a deep reflection on cyber-democracy. The network can be the place where inequalities are discovered and revealed; technological know-how, which opens the realm of knowledge, can convey plural processes of democratization if it becomes a relationship tool, without conflict among differences. To confirm this, according to several scholars[17] [18], the female ability to weave social ties using informatic devices is closely linked to relationship continuity and, therefore, can be used as an empowerment tool for socio-cultural development.

The perspective of critical feminist pedagogy has engaged itself precisely in decoding the implicit in the field of individual education and those assumptions that have historically relegated women to a position of subordination with respect to man in the field of knowledge, as well as with respect to the role played in society and in the profession. Furthermore, this approach aims at a rethinking of the fundamental questions of women's subjectivity, in order to develop a critical conscience and an aware look at reality, particularly in the field of education to reduce inequalities.

15 M. Vaccari, *Il farsi mondo della tecnologia IC*, in T.A. Capitani (ed.), *Un altro genere di tecnologia*, ISDR Associazione Il Secolo della rete 2008.

16 S. Turkle, *Life on the Screen: Identity in the Age of the Internet*, Simon and Schuster, New York 1995.

17 G. Cordignani, *Donne, informazione, tecnologie*, in T.A. Capitani (ed.) *Un altro genere di tecnologia*, ISDR Associazione Il Secolo della rete 2008.

18 F. Marone and V. Napolitano, *Pedagogia critica femminista e educazione transmediale*, in A. Garavaglia (a cura di), *Transmedia education. Contenuti, significati, valori,* Unicopli, Milano 2014, pp. 61-83.

Being an active subject means, in this sense, putting yourself within the social systems mediated by new technologies, proposing an alternative, conscious and political use.

From a gender perspective, the notion of democracy cannot be separated from the questions of gender citizenship and women's struggle against discrimination, submission and marginalization. Likewise, the use of the Internet as a space for participatory culture can constitute a support for the exercise of active citizenship in promoting awareness of one's rights[19]. Moreover, since the web represents a renewed way of building a public space, it is important for women to be able to live in it in order to exercise the right of digital citizenship through the expression of their intellectuality and creativity.

In this scenario, formal educational contexts play an important role on the one hand in promoting individual and collective motivation for the critical use of modern technologies, and on the other hand in strengthening the link between belonging, training and media education in order to facilitate processes of social cohesion and the exercise of an active citizenship[20].

Also neurosciences have demonstrated the importance of intersubjectivity, empathy and responsible participation in new forms of digital citizenship that preserve typically human ways of thinking[21]. In order for the network to become a resource and not an impediment to human development, education must fulfill its transformative role. This refers to the need to define guidelines for educational interventions aimed at training the younger generations in critical and conscious thinking about the mediums they use.

It is therefore of fundamental importance to think of producing a gender information system, aimed at promoting gender salience, through women's networks. The educational and emancipatory value of the network lies not only in the opportunity it offers to create social relationships between distant women, but also in providing mentoring models

19 F. Marone and M. Striano (eds), *Cultura postmoderna e linguaggi divergenti. Prospettive pedagogiche*, FrancoAngeli, Milano 2012.
20 M. Striano, *Pratiche educative per l'inclusione sociale*, FrancoAngeli, Milano 2010.
21 D. J. Siegel, *La mente relazionale. Neurobiologia dell'esperienza interpersonale*. Cortina, Milano 1999.

and experimenting with other forms of learning in a new sense of belonging and community, increasing and enhancing the sense of active citizenship.

However though, while on the one hand the technologies appear to herald opportunities, on the other they are not exempt from the dangers of exclusion: there are many factors on the network that limit the exercise of cyberdemocracy, including the predominance of the English language in some sectors, the technological know-how, extreme visibility and risk of privacy violation[22]. In this context it is crucial for women to be active subjects, defenders of a "zone" that risks being re-colonized by male domination.

In conclusion, it is a question of looking at the Internet and its use with a critical and attentive eye, as a space of participatory culture and information aimed at spreading awareness of one's rights. It is for this reason that in the pedagogical field it appears as an educational emergency to educate the new generations to a conscious and situated look, to be able to identify the dangers and challenges to be seized in this great universe which is the Internet.

CONCLUSION

The theme of digital literacy is a priority of the European agenda for inclusion. Closely related to the ability to be part of a community, the digital one, it is configured as a facilitator or, on the contrary, as an exclusion factor for those who do not have or do not have the possibility to reach such competences, as the most disadvantaged categories of the population. Therefore, in order to guarantee equal opportunities among web citizens, the synergic action between governments and both formal and informal educational contexts is of crucial importance. At the same time, the reduction of the gender digital divide would lead in the coming years to a considerable increase in female employment in those areas still predominantly dominated by men.

Despite the number of women showing a more genuine interest in scientific disciplines is gradually increasing and women graduates and

22 R. Braidotti, *Soggetto nomade. Femminismo e crisi della modernità*, Donzelli, Roma 1994.

employed in the STEM sectors are growing,

the stereotypes and prejudices are still resistant in both training and work, as well as the cultural heritage behind the under-representation of women in these areas.

Taking into account the fact that the female mainstream brings with it a wealth of knowledge and innovation for the well-being of society as a whole, the promotion and enhancement of digital skills is even more significant, for the improvement of a livability that becomes more and more digital.

For the promotion of digital equality, two themes seem fundamental and are interrelated: the first concerns the goal of breaking down barriers (internal and external to women) that prevent them from being realized even in STEM fields, starting from access to study paths and then to achieve professional success. The second factor concerns education to a different view, of which the critical feminist pedagogy has laid the foundations, to teach women to equip themselves adequately and free themselves from gender stereotypes that still limit the exercise of cyber-democracy.

In this sense education plays a fundamental role in guaranteeing equal opportunities and the exercise of active citizenship in the network by women.

In conclusion, active citizenship should be interpreted as a right that we are allowed to exercise only thanks to specific digital skills. The latter do not only concern technical aspects, but rather involve ever more force with values such as democracy, tolerance, responsibility towards the future of the community.

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