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Social Inclusion and Equity in Modern Information and Knowledge Societies

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Abstract In modern information and knowledge societies, which are organized on the basis of effectively exploiting information and knowledge, education plays an important role. Education contributes to the wellbeing of individuals, national prosperity and economic growth. Nevertheless, research has persuasively shown that social inequalities persist in modern information and knowledge societies, as new forms of inequalities emerge. These inequalities revolve around the so called "digital divide" among people from different socioeconomic backgrounds and class differentials in access and success within higher education. In this paper we undertake a review of the literature, pointing out implications for policy makers and suggesting directions for future research.

Keywords: *information and knowledge societies, digital divide, social class inequalities*

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1. Introduction

In recent decades, after the massification of education [1], which was often combined with efforts to produce fairer education outcomes [2], education lies at the heart of the political and academic agenda in most countries. Reforms in relation to education have been implemented so as "enable nations and individuals to meet the challenges of the 21st century" [3] and to increase their competitiveness [4]. As a result, sociologists of education examine the ways in which "educational processes affect the way people think, live and work, their place in society and their chances for success or failure" [5].

In modern globalized societies education plays a central role. Education is considered as a means that impacts on two interrelated levels. First, it helps individuals by providing them with skills and knowledge that will help them in their lives. Second, it boosts national growth and the development of an antagonistic economy. According to official documents education is important at all levels, from primary to tertiary education. Students, regardless of socioeconomic background or ethnic minority should be provided with opportunities to succeed in the educational system.

This brings to the fore the issue of social inclusion and equity in education. According to OECD [6] equity in education has two dimensions – fairness and inclusion. Fairness "basically means making sure that personal and social circumstances – for example gender, socio-economic status or ethnic origin – should not be an obstacle to achieving educational potential", while inclusion means "ensuring a basic minimum standard of education for all – for example that everyone should be able to read, write and do simple arithmetic" [6]. Education for all means that everybody should be provided with ample opportunities to realize their full potential and is closely related to social justice and an inclusive society [3]. The two dimensions are closely intertwined: tackling school failure helps to "overcome the effects of social deprivation which often causes school failure" [6].

Apart from these parameters of social inclusion and equity, the issues of widened access to higher education and success within it are also considered as crucial aspects of the equity agenda. In the next parts of the article we examine each of these parameters separately, especially in relation to the emerging information and knowledge societies.

2. Modern Information and Knowledge Societies

Widened access to higher education means that all students should be able to attend higher education, regardless of barriers arising from their socioeconomic background, such as financial constraints. Most countries have acknowledged the importance of increased access and have implemented policies for the expansion of participation in higher education as a means to increase individual and national prosperity [7].

Policies for the increase of participation in higher education are a result of recent developments (a) in the technological domain and (b) developments in the economy at a global level. These developments are interrelated. In relation to the first development that regards innovations in the technological domain, "the expansion of communications, with television, mobile phones, and email and internet providing ever easier access to knowledge and being available in far flung locations, has had the effect of heightening the demand for higher education worldwide" [8]. These technological innovations, such as the personal computer, World Wide Web, smartphones, etc. have their origin in the late 1970s [9].

As far as developments in the economy are concerned, according to Eggins [8], initiatives and measures aiming at the expansion of participation in higher education constitute a natural progression due to "the pressures generated by the impact of globalisation and the desire to take part in the knowledge society" [8]. In modern information and knowledge societies social and economic relationships are not organized on the basis of material goods or manual work [10], but on the basis of effectively exploiting information and knowledge [11]. Similarly, Daniel Bell, who was the one to conceive the concept of the information society, uses the terms "information society" and "post-industrial society" to refer to modern societies in which manufacturing employment is declining, while the service sector is increasing in importance and now the majority of workers are "information workers" [12]. Consequently, manual work is replaced by white-collar work [9]. In other words, the changing distribution of jobs seems an effective criterion to describe a society as an information society, since "as work that demands physical strength and manual dexterity, such as hewing coal and farming the land, declines to be replaced by more and more manipulation of figures and text, such as in education and large bureaucracies, then so we are entering a new type of society" [9]. People work mainly with their minds, and not with their hands [10] and information is both the means and product of all processes [13]. Developments in computer and telecommunications provide the infrastructure that enables information to be processed and distributed, which in turn results in the blending of national and regional economies [14]. Introducing the concept of "flows of information", Manuel Castells argued that the dominant social structure of the society we inhabit is that of a "network society", in which the source of productivity is generating and processing knowledge [15,16]. Castells [16] contends that a basic characteristic of the network society is the informational economy "in which sources of productivity and competitiveness for firms, regions, countries, depend, more than ever, on knowledge, information, and the technology of their processing, including the technology of management, and the management of technology. It is also a global economy, since its main activities are able to work "as a unit in real time on a planetary scale" [16]. Castells' writings about the network society are important, since they "have helped us think more clearly of the mobilities of peoples, products and information in a globalizing world" [17].

Sociologists have argued that in these societies education plays an important role, especially as regards occupational attainment [18]. In general sociologists of education have convincingly proposed the view that the educational system is central in the allocation of advantage in societies [19,20]. It has also long been argued that the education system, being itself a "site of struggle and compromise" [21], serves to reproduce social class and economic inequality [22] and that "class inequalities are likely to be reproduced" [23]. Those with limited or no access to education have difficulty in the transition to the labour market and as a result face the danger of social exclusion. Young people, in particular, face the above dangers, because the educational systems in many countries have not managed to take measures to deal with (a) the digital divide, (b) early leaving from eduation, and (c) the unequal representation of people from different socioeconomic backgrounds in tertiary education. Each of these factors is described in the following sections.

3. The Social Origins of the Digital Divide

If most workers are now "information workers", it is only natural that people need to have access to Information and Communication Technology (ICT) as well as skills and knowledge that will help them use it in ways that will be beneficial for them. Research has shown, however, that not all people have access to ICT and, most importantly, the skills to use it effectively. People differ in relation to access to ICT, and most importantly, the internet and also as regards internet usage [24]. What is important is that these differences are largely attributed to social class differentials.

The term "digital divide" was originally used to refer to differences in access to ICT, and especially the internet, among people from different social groups. These differences were most evident between people who belonged to different social classes. For instance, research findings indicated that people from lower social classes had lower rates of internet access in comparison to people from upper or middle class backgrounds. However, the widespread diffusion of the internet and its ubiquitous presence in virtually all domains of life, means that the digital gap is not a matter of access. Empirical investigation indicates that virtually everyone has internet access, regardless of socioeconomic background. Therefore, the differences are not related to internet access, but internet use [24,25,26,27]. This means that initially interest focused on the issue of inequalities in relation to internet access, the so-called "first-level' digital divide [28,29,30]. The widespread diffusion of the internet means that researchers now focus on the "second-level' digital divide, examining how people use the internet and benefit from it [31,32,33].

In this framework, research has shown that people from upper and middle class backgrounds use the internet in ways that are of benefit to them. Research findings show that middle class university students use more frequently the internet for educational purposes than students from working class students. For instance, they use the internet in order to find information for project work, or postgraduate studies, while working class students use it more often for entertainment purposes [11].

But why is the digital divide important? First, in relation to social inequalities, "the digital divide raises an important social question, because unequal access to ICTs may cause additional disadvantages for the already marginalized groups in society" [34]. In addition, the concept of digital divide is extremely important, since in information and knowledge societies effective use of ICT, and especially the internet, is crucial in the transition to the labour market. It means that certain groups of people, such as those from lower social classes or ethnic minority students, do not have access to information sources or do not use them effectively. As a result, these people from less privileged socioeconomic backgrounds do not have

equal opportunities for participation in the society as active citizens, and they are also more susceptible to social exclusion [13].

To summarise, research findings indicate that the digital divide is a complex issue and inequalities manifest themselves in many forms. Most importantly, research has consistently provided strong evidence that there is a digital divide between people from different social classed in terms of internet use. Differentials exist no more as regards physical access to the internet, since access is now universal. The digital divide is now traced as far as differences is usage, skills and experiences when people are online are concerned [34,35]. The difference between people from different social classes is not one of access, but one of use [36,37,38].

It is important to note, however, that these views have been challenged. Some researchers believe that there is a digital divide or that it is not a serious problem [39]. He argues that the digital divide will disappear in the end, as have other technological divides in history [39,40], since the costs involved continually drop, so more and more people will adopt the new technologies.

4. Increased Participation in Upper Secondary Education

Another danger faced by young people, thus undermining equity in educational outcomes, is related to early leaving from education, that is, the fact that many students do not drop out without graduating from upper secondary education. In relation to the International Standard Classification of Education (ISCED 2011), upper secondary education corresponds to level ISCED 3 and is defined as programmes which are "typically designed to complete secondary education in preparation for tertiary education or provide skills relevant to employment, or both. Pupils enter this level typically between ages 14 and 16" [41]. Its duration varies between 2-5 years according to the country in general academic education programmes, while even greater variation exist in vocational education and training programmes [4].

Equity in education is not related only on educational outcomes in relation to higher education, but to the lower levels of education as well. Participation in upper secondary education, after compulsory education, is important, since it "consolidates students' basic skills and knowledge through either academic or vocational pathways, aims to prepare students to enter further levels of education or the labour market and to become engaged citizens" [42].

Participation at this level of education is crucial because in modern information and knowledge societies, it can provide young people with the knowledge and skills required for entering in the labour market in globalized settings. Official data on participation in upper secondary education in Europe are encouraging. They provide strong evidence that "seventy-nine per cent of young people in Europe aged 20-24 successfully completed upper secondary education (ISCED3)" [43]. However, data indicate that "out-of-school rates for youth of upper secondary school age are far greater than those for children and adolescents of primary and lower secondary school age" [44].

In this framework, all students need to participate in higher education, and not only those who are academically oriented and have high school performance [6]. Non-participation in education after compulsory education is an issue that undermines equity and the reduction of social class inequalities. According to OECD, those who are more prone to discontinuing their studies after compulsory education are students from lower socio-economic groups [42].

The reasons for dropping out include "disenchantment with school, lack of support at home, negative learning experiences and having to repeat years because of poor performance" [6]. A substantial increase in participation rates in upper secondary education can be achieved by providing attractive vocational tracks (not only general tracks) and enabling students to enter higher education or move to the labour market with qualifications from vocational programmes. Identifying students who are at risk (e.g. those with lower performance levels in lower secondary education) and providing them with guidance can also help.

Teaching and learning methods can also be instructive in encouraging students to stay at school after compulsory education. Teaching methods that increase student motivation to learn are those who are learner-centered, take into account the students' needs and preferences, promote collaborative and experiential learning and increase students' critical thinking and creative skills. For example, project work can be used in the classroom, since there is empirical evidence that it provides motivation to all students, regardless of school performance, to participate in activities. Students who feel that their talents and needs are valued by the educational system are more likely to continue their studies after compulsory education. This is important especially for students from lower social classes with lower levels of cultural capital [45]. These students are socialized in the family [46] in a way that does not allow them to integrate into the culture of the school. Thus, they usually face difficulties and have lower school performance. Indeed, the relationship between social class and school performance has been proven in empirical research. Working class students usually have lower performance than their middle class counterparts. The latter have higher levels of social and cultural capital that enables them to navigate the school system with a sense of belonging [47,48]. For these students, success at school and high performance is something that is taken for granted, so they and their families adopt "strategies of social reproduction" [49].

Increased participation in upper secondary education is crucial, as it is linked to the transition to higher education. This is discussed below.

5. Widening of Participation in Higher Education

We have already seen that modern information and knowledge societies require a highly skilled workforce. This is important both for individual benefit and finding

an occupation, but also for national growth and prosperity. For example, data show that higher education graduates enter in the labour market more quickly than people who have completed lower secondary education [42]. It is important to note, however, that opposite views have been expressed. For example, Bowles and Gintis have argued that the relationship between schooling and future economic success is explained only partially explained by the cognitive skills learned in school [51,52].

A highly skilled workforce needs a higher education sector with two characteristics. First, a higher education sector that provides quality courses in accordance to the needs of the economy, so that graduates can find a job. Second, widened access is important so that all students, regardless of socioeconomic background, can enter higher education and complete their studies. In this paper we are primarily concerned with the issue of widened access and success within higher education.

The prospect of individual and national prosperity in modern information and knowledge societies cannot be achieved unless success in higher education is a feasible goal for everyone who wishes to participate in it. Research findings show that success in higher education is not a feasible goal for everybody. Researchers in the field of sociology of education attribute this to the following issues. To begin with, students from lower social classes are underrepresented in higher education, despite the expansion of participation. In addition, these students are underrepresented in high status higher education institutions and departments [53]. Finally, they have lower completion rates than their middle class counterparts. For instance, working class students have lower retention rates and face more barriers during their studies. These barriers include financial challenges, difficulties adjusting to the university's culture, difficulties meeting academic demands, etc.

To sum up the above discussion, what is needed is not simply increased and expanded access, but widened access. Expanded access refers mainly to quantitative increase in the number of people who participate in higher education. The term widened access carries a qualitative aspect, meaning that people from all social groups benefit from higher education, participate equally in it and there are expectations for completion of studies.

The above issues have important implications for issues of equity. In modern globalized societies equity is not an automatic process. In other words, equity does not come as a natural progression. This, in turn, means that measures should be taken to bring about equity.

6. Conclusion

The above discussion is concerned with an issue that is central to sociology of education - how the education system reproduces social inequality. The issue is not new. Over 56 years ago, Bernstein examined the way in which schools reproduce social class advantage within the education system and, consequently, in society [5,54]. The Coleman Report [55] and Jenck's studies focused on educational opportunity and the relationship between scholastic achievement and factors such as social class, gender and ethnicity [56].

In globalized information and communication societies, education at all levels, and especially higher education, plays an important role. Apart from national growth, higher education can, under certain conditions, contribute to a significant reduction in social inequalities. However, students' possession of capital, "the social products, both resources as well as rewards, of a field through which individuals carry out competitive social action" [57] plays an important role. Student's financial, cultural and social capital, defined as social networks that afford access to important social goods, [49,50,58,59,60], is still a predictor of their future educational and occupational trajectories.

A literature review shows that in many countries there are similar challenges and obstacles that need to be dealt with. However, solutions are not always easy to design, and may prove more difficult to implement. In any case, we should bear in mind that universal solutions that apply to all countries do not exist. Instead, solutions and initiatives need to take into account the specific characteristics of each country and the general societal, political, cultural and financial context [3].

The above analysis has also indicated directions for future research. First, research should focus on the "second level" digital divide, that is, the divide concerning usage. Research on this issue is important, since "the digital divide raises an important social question, because unequal access to ICTs may cause additional disadvantages for the already marginalized groups in society" [34]. Second, in relation to the digital divide, "monotopical measures of digital divide" [25] that focus only on one aspect of the digital divide (e.g. age, occupation, education, time spent online, family structure, etc.) should be replaced by more holistic approaches that examine the wide variety of factors impacting on the digital divide and also take into account "the context of the digital divide in each nation" [25].

References

[1] Sorlin, S., and Vessuri, H. (2007). Knowledge, Society vs Knowledge Economy: Knowledge, Power and Politics. Hampshire, England: Palgrave MacMillan.

[2] Marks, G. N., and McMillan, J. (2003). Declining inequality? The changing impact of socio-economic background and ability on education in Australia. British Journal of Sociology, 54(4), 453-471.

[3] Métais, J. L. (2003). International Developments in Upper Secondary Education Context, Provision and Issues. Dublin: National Council for Curriculum and Assessment.

[4] Köditz, V., Peek, R., and Sellin, B. (2009). How should Europe handle the globalisation? An educational perspective. Part III: Upper Secondary Education and Vocational Training,

[5] Sadovnik, A. R. (2007). Sociology of Education: A Critical Reader. New York and London: Routledge.

[6] OECD (2008). Policy Brief: Ten Steps to Equity in Education. OECD Publishing, Paris. Available at: http://www.oecd.org/education/school/39989494.pdf.

[7] OECD (2014). The State of Higher Education - 2014. OECD Higher Education Programme (IMHE). Paris.

[8] Eggins, H. (Ed.). (2010). Introduction: Access and equity: The Issues. Changing Inequalities: The Necessity for Research. In H. Eggins (Ed.) Access and Equity. Comparative Perspectives (1-7). Rotterdam: Sense Publishers.

[9] Webster, F. (2014). Theories of the Information Society (4th edition). London and New York: Routledge.

[10] May, C. (2002). The Information Society. A Sceptical View. Cambridge: Polity Press.

[11] Sianou-Kyrgiou, E., and Tsiplakides, I. (2011) Digital Divide: student's use of the Internet and emerging forms of social inequalities. In: Jimoyiannis A (Ed.) Research on e-Learning and ICT in Education (55-70). New York: Springer.

[12] Bell, D. (1976). The Coming of Post-Industrial Society: A Venture in Social Forecasting. New York: Basic Books.

[13] van Dijk, J. (2005). The Deepening Divide: Inequality in the Information Society. Thousand Oaks. Sage.

[14] Goddard, J. (1991). Networks of Transactions. Times Higher Education Supplement, February 22, p. VI. (An extended version appeared in Kevin Robins (Ed.). 1992. Understanding Information: Business, Technology and Geography (178-201). Belhaven Press.

[15] Castells, M. (1996). The Rise of the Network Society, The Information Age: Economy, Society, and Culture Vol. I. Malden, Massachusetts: Blackwell Publishers.

[16] Castells, M. (1997). An introduction to the information age, City, 2:7, 6-16.

[17] Webster, F. (2005). Making sense of the information age, Information. Communication & Society, 8(4), 439-458.

[18] Collins, R. (2007). Functional and Conflict Theories of Educational Stratification. In A. R. Sadovnik (ed.) Sociology of Education. A Critical Reader (37-52). New York: Routledge.

[19] Gewirtz, S., Ball, S. and Bowe, R. (1995) Markets, Choice and Equity in Education. Buckingham: Open University Press.

[20] Reay, D. (2004). Cultural Reproduction: Mothers Involvement in Their Children's Primary Schooling. In M. Grenfell and D. James (eds.) Bourdieu and Education: Acts of Practical Theory (55-71). Abingdon, Oxon. RoutledgeFalmer.

[21] Apple, M. (2007). Whose Markets, Whose Knowledge?. In A. R. Sadovnik (ed.) Sociology of Education. A Critical Reader (177-196). New York: Routledge.

[22] Bowles, S., and Gintis, H. (2007). Broken Promises: School Reform in Retrospect. In A. R. Sadovnik (ed.) Sociology of Education. A Critical Reader (53-69). New York: Routledge.

[23] Bernstein, B. (2007). Social Class and Pedagogic Practice. In A. R. Sadovnik (ed.) Sociology of Education. A Critical Reader (97-114). New York: Routledge.

[24] Wei, L., and Hindman, D. B. (2011). Does the Digital Divide Matter More? Comparing the Effects of New Media and Old Media Use on the Education- Based Knowledge Gap. Mass Communication and Society, 14(2), 216-235.

[25] Barzilai-Nahon, K. (2006). Gaps and Bits: Conceptualizing Measurements for Digital Divide/s. The Information Society, 22, 269-278.

[26] Wilson, E. J. III. (2006). Why we need a negotiation model to explain Internet diffusion. Access to Knowledge Conference. Yale University, New Heaven, CT.

[27] Witte, J. C., and Mannon, S. E. (2010). The Internet and Social Inequalities. New York: Routledge.

[28] Norris, P. (2001). Digital divide: Civic engagement, information poverty, and the Internet worldwide. New York, NY: Cambridge University Press.

[29] Hargittai, E. (2004). Internet access and use in context. New Media and Society, 6, 137-143.

[30] van Dijk, J. (2002). A framework for digital divide research. Electronic Journal of Communication, 12.

[31] Attewell, P. (2001). The first and second digital divides. Sociology of Education, 74, 252-259.

[32] Livingstone, S., & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. New Media & Society, 9, 671-696.

[33] Selwyn, N. (2004). Reconsidering political and popular understandings of the digital divide. New Media & Society, 6, 341-362.

[34] Min, S. J. (2010). From the Digital Divide to the Democratic Divide: Internet Skills, Political Interest, and the Second-Level Digital Divide in Political Internet Use. Journal of Information Technology & Politics, 7(1), 22-35.

[35] Hargittai, E. (2002). The second-level digital divide: differences in people's online skills. First Monday, 7(4).

[36] Hargittai, E., and Walejko, G. (2008). The participation divide: content creation and sharing in the digital age. Information, Communication & Society, 11(2): 239-256.

[37] Tondeur, .J, Sinnaeve, I., van Houtte, M., and van Braak, J. (2010). ICT as cultural capital: The relationship between socioeconomic status and the computer-use profile of young people. New Media & Society, 13(1), 151-168.

[38] Van Deursen A J A M and Van Dijk, J A G M (2009). Improving digital skills for the use of online public information and services. Government Information Quarterly, 26, 333-340.

[39] Compaine, B. (1988). Information gaps: Myth or reality? In B. Compaine (Ed.), Issues in new information technology (179-191). Norwood, NJ: Ablex Publishing Company.

[40] Compaine, B. (2001). Epilogue. In B. Compaine (Ed.), The digital divide: Facing a crisis or creating a myth? (337-339). Cambridge, MA: MIT Press.

[41] Eurydice (2014). The Structure of the European Education Systems 2014/15: Schematic Diagrams. Education, Audiovisual and Culture Executive Agency.

[42] OECD (2016a). Education at a Glance 2016: OECD Indicators. OECD Publishing, Paris. Available at: http://www.oecd-ilibrary.org/docserver/download/9616041e.pdf?expires=1507742108&id=id&accname=guest&checksum=4FA43961AF90D43776371C7A1B568F4E

[43] Eurydice (2012). Key data on education in Europe. Education, Audiovisual and Culture Executive Agency.

[44] OECD (2016b). Leaving no one behind: How far on the way to universal primary and secondary education?. POLICY PAPER 27/FACT SHEET 37.

[45] Bourdieu, P., and Passeron, J. C. (1977). Reproduction in Education, Society and Culture. London. Sage.

[46] Bourdieu, P. (1996). On the family as a realized category. Theory, Culture and Society, 13(3), 19-26.

[47] Bourdieu, P. (2007). The forms of capital. In A. R. Sadovnik (ed.) Sociology of Education. A Critical Reader (83-95). New York: Routledge.

[48] Grenfell, M., and James, D. (2004). Bourdieu and Education: Acts of Practical Theory. Abingdon, Oxon. RoutledgeFalmer.

[49] Reay, D., and Ball, S. J. (1998). Making their Minds Up': family dynamics of school choice. British Educational Research Journal, 24(4), 431-448.

[50] Putnam, P. D. (1995). Bowling alone: America's declining social capital. Journal of Democracy, 61, 65-78.

[51] Bowles, S., and Gintis, H. (2002). Schooling in Capitalist America Revisited. Sociology of Education, 75(1), 1-18.

[52] Bowles, S., and Gintis, H. (1976). Schooling in Capitalist America. New York: Basic Books.

[53] Reay, D., David, M. E., and Ball, S. (2005). Degrees of choice: Social class, race and gender in higher education. Stoke-on-Trent: Trentham Books.

[54] Bernstein, B. (1961). Social class and linguistic development: A theory of social learning. In A.H. Haslsey, J. Floud and C. A. Anderson (eds.) Education, economy and society (288-314). New York: Free Press.

[55] Coleman, J. et al. (1966). Equality of educational opportunity. Washington D. C.: U. S. Government Printing Office.

[56] Jencks, C., Smith, M., Acland, H., Bane, M. J., Cohen, D., Gintis, H., Heyns, B., and Michelson, S. (1972), Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic.

[57] Vryonides, M. (2007). Social and cultural capital in educational research: issues of operationalisation and measurement. British Educational Research Journal, 33(6), 867-885.

[58] Bourdieu, P. (1990). The logic of practice. Cambridge: Polity Press.

[59] Putnam, R. D. (2000). Bowling alone: the collapse and revival of American community. New York: Simon & Schuster.

[60] Coleman, J. S. (1988) Social capital and the creation of human capital. American Journal of Sociology, 94(Supplement), S95–S120.