ADDICTION & SOCIAL MEDIA COMMUNICATION

University of Messina - Journal homepage: https://cab.unime.it/journals/index.php/ASMC/
Addiction & Social Media Communication, 2026, Vol.1, No.1, pag. 22-36

Digital educational poverty and new inequalities: a sociological perspective on contemporary processes of stratification

Federica Zaccone*

University of Messina

ABSTRACT

Background: The phenomenon of digital educational poverty represents a complex manifestation of contemporary inequalities, in which the traditional digital divide evolves from an infrastructural barrier into a cognitive and social obstacle.

Method: The methodology is based on a comparative-deductive approach. The study uses the Italian context as an emblematic case to analyze the intersections between educational deficits and the digital divide. By integrating a systematic review of international literature with a secondary analysis of institutional datasets (ISTAT, OECD), the research aims to explore the stratification of digital educational inequalities, proposing the Educational Poverty Index (EPI) as a reference interpretive framework.

Results: A cross-analysis of the data reveals an uneven distribution of digital skills. The analysis shows that a lack of digital literacy not only compromises academic success but also significantly impacts career paths and access to government-provided digital services.

Conclusion: Ultimately, the study frames digital educational poverty not as an isolated phenomenon, but as a critical determinant fueling the cycle of social inequality. To understand the mechanisms of contemporary social stratification, it is essential to consider the digital dimension as an endogenous variable within educational processes.

Keywords: *Digital educational poverty, digital divide, inequalities*

* *Corresponding author*: Federica Zaccone
Email address: federica.zaccone@yahoo.it

Doi: https://doi.org/10.13129/3035-1383/asmc-5565

Introduction

The complexities arising from the emergence of the digital society bring new challenges, creating unprecedented scenarios of social inequality. The issue of "educational poverty" understood as the deprivation of opportunities to learn, experiment, and freely develop and flourish in terms of capabilities, talents, and aspirations (Save the Children, 2014)—has become central to the political agendas of many Western countries. This multidimensional and multidisciplinary phenomenon (Pratesi, 2022) manifests in various forms, one of which is digital educational poverty. It is a form of disadvantage that encompasses multiple meanings. Indeed, digital educational disadvantage manifests both as a lack of material resources (such as devices and a stable internet connection) and as an absence of the basic digital skills required for the responsible, critical, and creative use of digital tools (Save the Children, 2021).

In a society largely founded on the use of technology, particularly communication technology, the deprivation of physical and cognitive resources creates a potential risk of social marginalization affecting not only minors but also adults and the elderly. Unlike inequalities that existed in the pre-digital era, the digital divide permeates every aspect of daily life (Van Dijk, 2020) and must be addressed as a complex problem that extends far beyond the mere lack of technological devices.

In Italy, the issue of digital educational disadvantage became starkly apparent during the COVID-19 pandemic, exposing the fragility of a social system that remains unequal in many respects. The 2020 COVID-19 emergency brought to light not only health and financial challenges but also educational and training-related ones (Baldwin et al., 2020), driven by the necessary shift to remote learning (*Didattica a Distanza* or DaD). The implementation of e-learning—necessitated by the urgent need to ensure educational continuity—brought to the fore (at least within the Italian context) a set of difficulties that had previously been underestimated; these will be examined in greater depth in the following section.

However, the example of remote learning reveals only one facet of a broader problem that also affects the adult population. This leads us to view digital educational poverty as a socially stratified, multidimensional construct that extends well beyond school age.

Digital educational poverty compounds general educational poverty, affecting both minors and adults—by depriving individuals of the opportunity to acquire the new forms of literacy required in a post-media society. These skills are essential for analyzing the production and consumption of digital content by social web "spectators" and "onlife citizens" (Marangi et al., 2023). Against this backdrop, this paper aims to analyze digital educational poverty as a phenomenon that generates novel forms of inequality. As will be shown shortly, the stratifying impact of digital educational poverty is corroborated by the most recent quantitative data from Istat (2026). These findings demonstrate that digital skills are not democratically distributed resources; rather, they constitute an exogenous factor that mirrors and amplifies traditional fault lines of social inequality.

Methods

The study adopts a comparative-deductive approach aimed at examining the structural mechanisms governing digital educational poverty. The methodological path follows a deductive trajectory: drawing on established theoretical models from the sociology of stratification and media studies, general hypotheses are derived regarding the impact of digital deprivation on adult and elderly cohorts.

Subsequently, these hypotheses are contextualized within the Italian setting, which serves here as an emblematic case study. Italy, in particular, offers a fertile ground for research due to the convergence of three critical factors:

- An accelerated trend of demographic aging
- A persistent deficit in formal educational attainment compared to the European average
- A digital transition within Public Administration and services (the "onlife" society) that is disproportionate to the population's literacy levels.

The ultimate goal of this framework is to utilize the Educational Poverty Index (EPI) as a theoretical reference point for mapping, quantifying, and interpreting digital inequalities on a global scale. Rather than attempting a formal empirical validation of the index—a task requiring psychometric and econometric analyses of primary microdata, which are reserved for future research—this study defines the EPI as a heuristic model.

To explore the construct's theoretical scalability, the EPI's interpretive framework is linked to standardized macro-indicators from OECD surveys. Specifically, the theoretical-analytical discussion of the EPI is enriched by secondary analysis of data from the OECD's *Survey of Adult Skills* (conducted under the PIAAC program—*Programme for the International Assessment of Adult Competencies*, Cycle 1) and data concerning youth cohorts from the PISA program (*Programme for International Student Assessment*, 2022 Cycle). This bidirectional theoretical approach allows for the conceptual operationalization of the three constitutive fault lines of the EPI—generational, cultural capital, and occupational—by placing them in dialogue with standardized cross-national empirical metrics (OECD, 2019).

Furthermore, the secondary analysis draws upon the ISTAT survey *"Aspects of Daily Life"* (2025 cycle / 2026 report). The reference population consists of residents in Italy aged 15/16 or older. The dataset serves as a valuable resource by providing the necessary information on access to information and communication technologies (ICT) and Internet usage, thereby enabling the measurement of two key domains: possession of at least basic digital skills (based on the European DigComp framework) and the frequency and manner of using digital identity services (SPID and CIE). These variables were analyzed in conjunction with key sociodemographic characteristics, with particular attention paid to age groups, gender, educational attainment, and employment status.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

Regarding cultural capital and employment, incorporating OECD-PIAAC metrics allows us to move beyond the traditional dichotomous view of the digital divide—based on the simple access/no-access binary—and focus instead on third-level skills: specifically, the ability to solve problems in technology-rich environments (PS-TRE). Preliminary analysis of OECD data reveals that a significant portion of the adult population falls below Level 1 proficiency or reports a complete lack of familiarity with the cognitive use of devices (OECD, 2019). Integrating these indicators into the EPI makes it possible to conceptualize digital functional illiteracy and demonstrate how offline linguistic and logical deprivation acts as the primary structural constraint on the development of agency and strategic skills within algorithmic environments.

At the same time, to theoretically assess the index's ability to reflect the mechanisms of intergenerational inequality reproduction, the analysis incorporates evidence from the OECD-PISA framework—specifically the *ESCS* (*Economic, Social and Cultural Status*) index, a composite indicator summarizing the socioeconomic and cultural capital of a student's family of origin. The ESCS index is linked to students' ability to critically evaluate the credibility of online sources, distinguish facts from opinions, and avoid misinformation, thereby providing a measure of the critical digital literacy of youth cohorts. As the following section will show, the data demonstrate that despite the saturation of material access to devices among fifteen-year-olds, profound and systematic gaps persist regarding the ability to critically assess online source credibility and process complex information flows (OECD, 2023). The EPI accounts for this multidimensionality, serving as an initial theoretical model to map both the disadvantage accumulated by older cohorts due to technological obsolescence and the latent vulnerability of newer generations—who are often mistakenly viewed as a homogeneous group under the uncritical label of "digital natives." The systematic cross-referencing of national sample data with major OECD surveys thus provides the EPI with the analytical sensitivity needed to serve as a conceptual model—one to be validated in future research and utilized for public welfare and lifelong learning policies on an international scale.

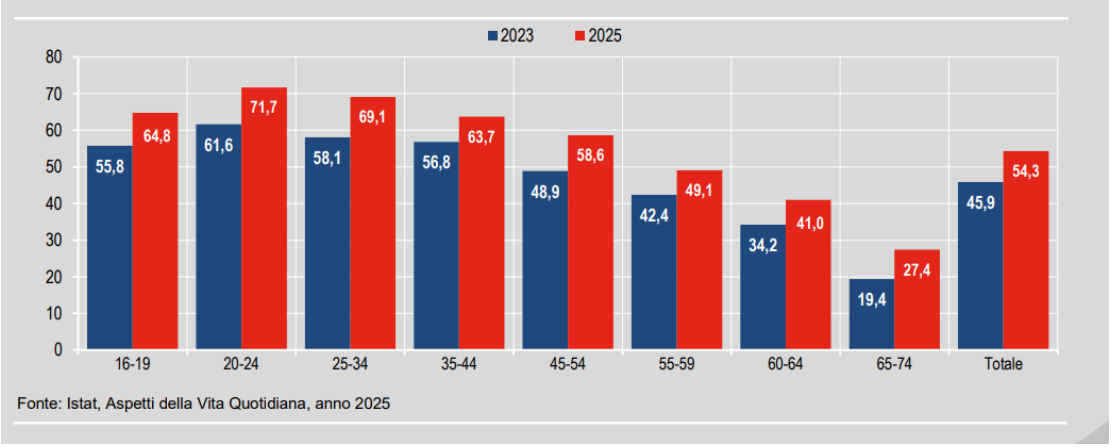
Results

Initial results from the analysis of ISTAT data suggest the existence of stratification patterns regarding acquired digital skills across Italy, revealing, first and foremost, a generational divide. Indeed, quantitative data indicate a clear asymmetry in the distribution of "digital educational poverty" across different Italian population cohorts.

Among 16- to 24-year-olds, approximately 70% demonstrated at least basic digital skills in 2025. From this, one might hypothesize that for digital natives—or young people within the formal education system—the "onlife" environment is a native context, deeply embedded in their daily lives. However, the notion of universal digitalization is an illusion that immediately runs up against demographic realities. A clear disparity emerges in the 55–59 age group, where the proportion of digitally included citizens drops to 49.1% for the same reference year. Yet, the most striking divide—as shown in Table 1—appears in the 65–74 age group. In this cohort, only 27.4% of individuals

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

possessed the minimum digital skills defined by European standards in 2025, while the remaining 72.8% of the elderly population fell into a category of total exclusion (ISTAT, 2026).

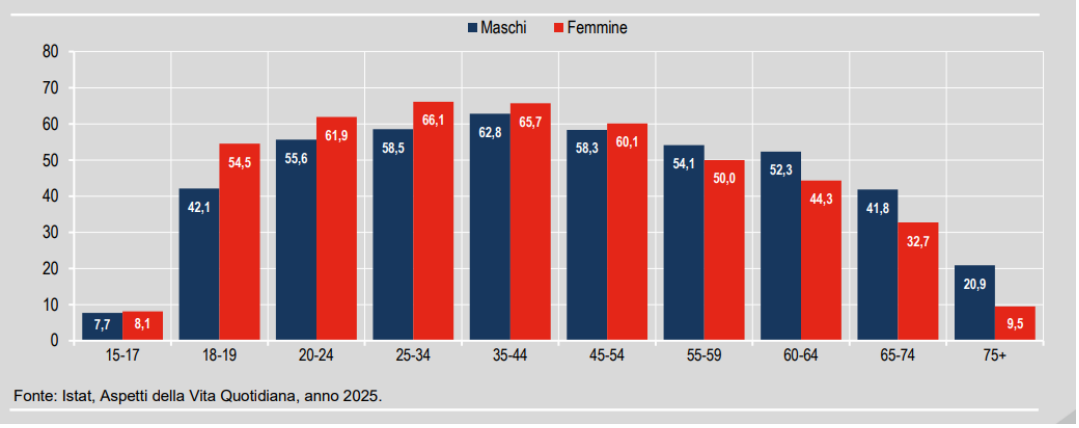


Tab.1- People aged 16–74 with at least basic digital skills (Years 2023 and 2025)

Furthermore, regarding our analysis of new inequalities, we consider it useful to examine another interesting aspect emerging from the recent Istat report: a significant generational gap in the frequency of accessing citizen services via digital systems (specifically, access using SPID or CIE). A close look at the chart in Table 2 suggests that digital interaction between citizens and Public Administration reflects the previously highlighted disparities. The available data reveal two distinct elements that warrant our attention. First, there is a marked predominance of women in the use of digital identities among the 18–54 age group. This figure does not necessarily indicate superior technological proficiency in absolute terms. From an interpretive standpoint, one might propose the sociological hypothesis that this pattern is linked to the administrative management of family caregiving tasks—ranging from school enrollment and applications for welfare benefits to booking healthcare appointments—which are digitized processes that frequently fall to mothers. While this hypothetical interpretation aligns with the concept of a shift of bureaucratic effort into the domestic sphere (Zaccone, 2024), it requires specific empirical verification regarding the organization of family labor.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

University of Messina - Journal homepage: https://cab.unime.it/journals/index.php/ASMC/
Addiction & Social Media Communication, 2026, Vol.1, No.1, pag. 22-36



Tab. 2 - People aged 15 and over who used the Internet in the last 12 months for SPID/CIE usage, by sex and age group

A second observation concerns the sharp decline in female representation within older age groups (60–74 and 75+). This appears to highlight the emergence of a form of cumulative subordination. In these older cohorts, the effects of historical gender-based disadvantages in labor market access intersect with the forced obsolescence driven by the digitalization of services. Older women—who are often alone or widowed—undergo a process of total bureaucratic depersonalization: unable to independently access their own medical records, online pension accounts, or municipal services, they are forced to delegate the exercise of their basic rights to others (such as children, assistance agencies, or local support networks). Tools like SPID and CIE have become essential keys to accessing substantive citizenship. When access to social and healthcare rights is mediated by a complex interface, digital educational poverty translates directly into democratic exclusion. These considerations provide further evidence of the EPI's validity, demonstrating its predictive power regarding how gender and age combine to determine who possesses agency within the "onlife" state and who is condemned to a new form of invisibility and institutional dependency.

Continuing our analysis, cross-referencing formal education levels with digital skills reveals a deeper connection within this stratification. Indeed, an examination of the working-age population (aged 25–64) yields some interesting findings. The first is the positional advantage held by university graduates, 75.6% of whom possess at least basic digital skills. For this demographic, formal education has provided the cognitive tools necessary to interpret the complex languages of ICT. The cohort of upper secondary school graduates occupies a middle ground, with 52.3% considered digitally included. While possessing the minimum operational skills, this group often exhibits significant gaps in specific areas—such as the ability to understand the dynamics of information algorithms or advanced personal data protection. Finally, the most striking figure concerns those with, at most, a lower secondary education (or no educational qualification): in this group, the proportion possessing adequate digital skills plummets to 29.8%. The remaining 70.2% find themselves in a state of absolute digital educational poverty.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

University of Messina - Journal homepage: https://cab.unime.it/journals/index.php/ASMC/
Addiction & Social Media Communication, 2026, Vol.1, No.1, pag. 22-36

However, there is a third and final fault line that warrants our attention: the employment and economic divide. Drawing again on Istat data (2026), a profound polarization is evident in the Italian labor market, where digital skills appear to function not merely as an entry requirement, but rather as a key factor in safeguarding one's income and social standing. Indeed, while 81.3% of professionals in high-cognition roles possess digital skills, this figure stands at only 37.1% among job seekers. This gap reflects a structural reconfiguration of power asymmetries and mechanisms of social closure (Weber, 1922). The trends of polarization and segregation observed in Italy are mirrored—in a manner that is both precise and concerning—at the international level in comparative studies conducted by the OECD. Evidence from the OECD-PIAAC survey on adult cognitive skills confirms that the deficit observed in the Italian employment divide (with 37.1% digital proficiency among the unemployed) reflects a transnational macro-structural dynamic. Across OECD countries, the proportion of adults falling below Level 1—or reporting a complete lack of familiarity with using digital tools to solve complex problems—hovers between 25% and 30% (OECD, 2019).

Examining these data through the lens of the EPI analytical framework suggests that individuals permanently confined to routine or fragmented labor market roles undergo a process of skill obsolescence (Checchi, 2005; Giancola and Salmieri, 2020) that outpaces the protections offered by traditional welfare systems. This phenomenon describes what Eynon and Malmberg (2021) identify as the trajectory of permanent exclusion faced by "historical non-users," for whom a lack of professional stimulation inhibits any form of spontaneous digital learning.

OECD evidence supports the hypothesis that offline functional illiteracy and strategic digital deprivation reinforce one another, confirming the analyses by Micheli et al. (2024) regarding "half-connected lives," wherein digital exclusion acts as a multiplier of pre-existing economic vulnerabilities. Those lacking a solid foundational logical-linguistic structure fail PIAAC assessments regarding information navigation and management in technology-rich environments (Problem Solving in Technology-Rich Environments); this transforms the third-level digital divide—centered on the ability to capitalize on the benefits of the Internet—into an insurmountable barrier to social mobility, consistent with the model of digital and socio-economic ties proposed by Helsper (2021).

At the same time, adopting the EPI as an analytical framework to capture the channels of intergenerational inequality transmission finds points of comparison in the results of the OECD-PISA program. Although the recently analyzed Istat data show a seemingly reassuring level of basic digital skills among young Italians aged 16–24 (85.4%), standardized OECD-PISA assessments of fifteen-year-olds reveal a latent, underlying vulnerability that the—at times uninformative—label of "digital natives" tends to obscure. Consistent with studies by Mascheroni and Ólafsson (2024) on the media diets and critical skills of European adolescents, an analysis of the OECD's ESCS (Economic, Social and Cultural Status) index highlights that, even when material access to the internet and hardware ownership are equal, a vast gap persists in students' ability to process information critically (OECD,

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

2023).
Furthermore, as documented in Italy by the studies of Argentin and Gerosa (2023) on digital inequalities in schools, students from families with lower levels of education and income record significantly lower scores in decoding fake news, verifying source credibility, and proactively using technology for learning purposes. This youth-related gap—standardized by the OECD—aligns with the cultural capital divide described in Table 1; it suggests that the 29.8% proficiency rate observed among those with only a lower secondary education is the result of a cumulative educational disadvantage that begins during early socialization, in line with the mechanisms of cultural reproduction discussed by Schizzerotto and Barone (2022).

Consequently, the stratification of digital skills cannot be reduced to a mere "age-related issue." Instead, it appears to constitute a deep hierarchical structure in which—as suggested by Robinson et al. (2023)—familial digital capital functions as an inheritable resource. International evidence from OECD-PIAAC and OECD-PISA, incorporated into the Results matrix, provides conceptual support for the EPI, framing it as a metric designed to illustrate how digital educational poverty is linked to the intersection of age, cultural, and economic factors across the life course.

Discussion

The proven existence of these three major divides—generational, cultural capital, and occupational—supports the conceptual relevance of our EPI (Educational Poverty Index) in three distinct ways, demonstrating that:

- Digital educational poverty creates dynamic inequality; this is evidenced by the sharp drop in basic digital skills among the oldest age group, which shows a 58-percentage-point gap compared to digital natives.
- A mechanism of cumulative deprivation exists; this is confirmed by the gap (75.6% vs. 29.8%) observed in the cultural capital divide. Those lacking a solid logical-linguistic foundation do not possess the capabilities (Sen, 1992) required to develop strategic digital skills.
- Digital poverty among adults produces immediate material consequences, triggering the well-known "Matthew Effect" (Merton, 1968). The occupational divide validates the EPI in terms of economic and material predictability. In light of this, it can be asserted that, rather than democratizing work, digital technology tends to polarize the social structure.

The possibility theorized by Ithiel de Sola Pool in the 1980s—that "technologies of freedom" (as he termed them) would enable access to a free, barrier-free global information society (de Sola Pool, 1995)—appears far removed from the social reality emerging from the analytical framework described above. The optimism characterizing early reflections on digital media is contradicted by a digital environment that acts as a powerful amplifier and translator of class inequalities, establishing

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

University of Messina - Journal homepage: https://cab.unime.it/journals/index.php/ASMC/
Addiction & Social Media Communication, 2026, Vol.1, No.1, pag. 22-36

a new axis of social segregation based on the ability to exercise strategic autonomy within the algorithmic landscape.

Viewed in this light, digital educational poverty manifests as a multidimensional, hierarchical form of stratification that overlays existing axes of inequality, redefining the boundaries between social inclusion and exclusion. While roughly half the global population belongs to the network society, it remains true that nearly 3.5 billion people are excluded from it (Stella et al., 2024). Cyber-utopianism inevitably clashes with this reality, highlighting the need to rethink social policies to better target the population groups most at risk of digital poverty. This argument holds true for the Italian population as well; as previously noted, significant disparities persist in the use of new technologies among adults, the elderly, and individuals with lower levels of education.
The data observed thus far would seem to refute the "integrated" view (Eco, 1964) held by certain intellectuals who, in the pre-digital era, predicted a more democratic and inclusive society driven by expanded access to and use of communication technologies (Shills, 1975; Bell, 1962). The fragmentation of this phenomenon—manifesting across the three dimensions of access, usage, and the acquisition of digital skills—poses a tangible risk of exclusion. This affects not only offline citizens but also those users who, despite being online, lack the strategic and critical competencies needed to fully benefit from communication technologies. The risk of social marginalization inherent in this divide significantly impacts the ability to build the framework of rights (Rodotà, 2010) that forms the very soul of the digital democracy to which we should aspire.

> The Internet represents the largest public space humanity has ever known; safeguarding this "nature" of the Internet entails [...] the concrete possibility of exercising "civic virtues"—and thus giving substance to active citizenship—and ensuring that the Internet remains a resource for democracy (ibid.).

This scenario would undermine the very concept of digital democracy—originally envisioned by Rodotà as a space for universal inclusion and political disintermediation (Rodotà, 1997). The ideal of active, symmetrical citizenship clashes with what has been termed the "Net Delusion" (Morozov, 2011), wherein technological infrastructure—far from democratizing access to power and institutions—ends up excluding precisely those who are structurally most vulnerable. "Onlife" democratic participation ceases to be an automatic right and instead becomes a selective practice, accessible only to those possessing the strategic skills and cultural capital required to navigate new digital public spaces (van Dijk, 2000). Consequently, these factors coalesce within a complex intersectional matrix (Crenshaw, 1989), giving rise to new forms of inequality that fully reflect the characteristics of our "liquid society" (Bauman, 2002). It is also worth noting how, amidst the transition toward a fluid and deregulated modernity, traditional social protection structures dissolve, leaving the individual alone to face the constant need to update their own cognitive and technological defenses. Digital educational poverty thus becomes an undeniable reflection of this state of perpetual uncertainty: those lacking the strategic skills to navigate the fluidity of media platforms are excluded from employment and institutional dynamics, experiencing a form of existential and relational

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

marginalization typical of a society that devours individuals unable to keep pace with its shifting flows (ibid.).
We are thus faced with a dynamic of marginalization that takes on a specific character when viewed through the lens of the "network society" paradigm (Castells, 2002), which posits that the architecture of the network society rests on an exclusionary binary logic. Interpreting the multi-level gap identified in the previous section in light of Castells's detailed analysis, one can assert that the segment of the population lacking the cultural and technological codes required to inhabit central information flows is systematically disconnected and expelled from the vibrant core of symbolic and economic value creation.

In this context—and as highlighted in studies by expert Laura Sartori (2006)—the digital divide in Italy manifests as a genuine form of multidimensional social inequality. Far from being limited merely to physical access to the network, this technological deficit becomes stratified and reproduces itself along the fault lines of educational disparities and employment asymmetries that already exist in the offline world. Indeed, numerous perspectives warn that the digital divide threatens to exacerbate the social and democratic divides as well (Norris, 2001). It is precisely Pippa Norris who emphasizes the "diverse dimensions of a new poverty"—dimensions that sociology must examine to fully grasp their causes and effects. By adopting a concept of stratified inequalities, it is possible to extend poverty research to the digital realm and address the new challenges these inequalities pose to a society in constant flux, both within and beyond digital platforms.

Conclusions

This contribution joins the voices that have long been studying, questioning, and highlighting the existence of a stratification of old and new inequalities, of which digital inequalities constitute merely the surface layer. As also highlighted by Iannone (Iannone, 2007):

> The digital divide appears to be nothing more than a reflection of the planet's currently growing socioeconomic inequalities [...]. The digital divide has thus emerged as a new manifestation of the very concept of a "divide." [...] The digital divide quantifies the reality of exclusion and cultural homogenization experienced by those ignored by the digital revolution—individuals who derive no material benefits from it and remain invisible within this new social space.

Iannone's (2007) observations invite us to view the digital divide not as an isolated technical anomaly, but as a structural manifestation of social reproduction. In this context, the Educational Poverty Index (EPI) serves as a crucial heuristic tool for mapping what Gui (2019) defines as the asymmetry of digital skills in the age of information overabundance. Mere access to the network has ceased to be a driver of automatic emancipation; conversely, the widespread availability of connections and devices has spawned new forms of cognitive vulnerability. Working-class groups or individuals with low

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

levels of formal cultural capital experience a form of genuine algorithmic subordination, passively enduring the extractive dynamics of platform capitalism (Srnicek, 2017) rather than reaping the informational and civic benefits of the "onlife" ecosystem.

While this form of exclusion manifests through complex digital interfaces, it is rooted in traditional mechanisms of cultural deprivation. As extensively noted by Giancola and Salmieri (2020) in their sociological analysis of educational inequalities, technological divides mirror the offline fault lines shaped by social background and the intergenerational transmission of privilege. Consequently, digital educational poverty is not merely a matter of lacking technological devices (Marangi et al., 2022). Rather, it represents a complex—both material and immaterial—realm of deprivation and exclusion that stifles the development of critical skills and undermines individuals' relational and decision-making autonomy (Sottocorno, 2025). Thus, the digitally impoverished individual finds themselves unable to fully exercise their political agency within an increasingly dematerialized public sphere.

Faced with this scenario, the illusion of an inherently equitable digital transition gives way to the realization that software architectures act as powerful agents of re-stratification. If public policies push for a technological transition without anchoring it to structural interventions for critical and lifelong literacy, the State abdicates its compensatory role. The digitalization of public administration and the labor market turns into a driver of democratic exclusion that penalizes older citizens, the unemployed, and vulnerable families, thereby exacerbating the processes of social vulnerability and existential precarity examined by Ranci (2010). New digital inequalities intertwine with established patterns of occupational stratification, confirming that inclusion in the network society requires a set of strategic macro-competencies that mass education systems have yet to distribute universally (Cortoni, 2025).

In conclusion, the EPI's conceptual proposal calls for framing the analysis of digital media within the classical categories of the sociology of power, class, and social change. As noted by Bothma et al. (2024), the effectiveness of information literacy processes depends heavily on the ability of social systems to recognize information competencies as crucial determinants of agency and human development. Only through rigorous, multidimensional monitoring—capable of quantifying the intersection of gender, age, occupation, and educational capital—will it be possible to steer policy agendas toward building an inclusive "educating community" (Chistolini, 2023) and an "onlife" welfare model that places the individual back at the center.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

Limitations and future directions of the work

This study presents certain specific methodological limitations that must be acknowledged. The analyses rely on secondary data that are descriptive and cross-sectional in nature. This precludes the possibility of establishing direct causal links or detecting longitudinal variations at the individual level. Furthermore, the surveys considered (Istat, OECD-PIAAC, OECD-PISA) employ distinct sampling methodologies, age ranges, and operational definitions of skills; consequently, while comparisons between them are heuristically useful, the data are not directly comparable from a statistical standpoint. At present, the EPI stands as a conceptual proposal. Its formal operationalization, the verification of its psychometric properties (construct validity, reliability), and the estimation of its actual predictive power will be the subject of future empirical research utilizing dedicated data collection protocols.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article, or declared.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

References

Argentin, G., & Gerosa, T. (2023). Dentro lo schermo: Disuguaglianze digitali e percorsi scolastici degli adolescenti italiani. Il Mulino.

Baldwin, R., Weder Di Mauro, B. (2020). Mitigating the Covid Economic Crisis: Act Fast and Do Whatever It Takes, London: CEPR Press, 2020.

Bauman, Z. (2002). Modernità liquida. Laterza.

Bell, D. (1962). Modernity and Mass Society: on the Varities of Cultural Experience. Studies in Public Communication, n.4.

Bothma, T. J. D., Cosijn, E., Fourie, I., & Pienaar, H. (2024). Navigating the information literacy landscape: Agency and human development. Chandos Publishing.

Castells, M. (2002). La nascita della società in rete. EGEA.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

Checchi, D. (2005). The economics of education: Ideologies, institutions and outcomes. Cambridge University Press.

Chistolini, S. (A cura di). (2023). Povertà educativa e comunità educante. Il Nodo. Per una pedagogia della persona, 27(53), 1-320.

Cortoni, I. (2025). Il caso della povertà educativa e le sfide dell'inclusione digitale. The Lab's Quarterly, 27(2), 45-63.

Eco, U. (1964). Apocalittici e integrati: comunicazioni di massa e teorie della cultura di massa. Bompiani.

Eynon, R., & Malmberg, L. E. (2021). Lifelong learning and the digital divide: Understanding the trajectories of non-users. Journal of Computer Assisted Learning, 37(4), 1102-1115. https://doi.org/10.1111/bjet.13041

Giancola, O., & Salmieri, L. (2023). Sociologia delle disuguaglianze educative: Teorie, metodi, ambiti. Carocci.

Gui, M. (2019). Il digitale a scuola: Rivoluzione o abbaglio? Il Mulino.

Helsper, E. J. (2021). The digital disconnect: The social causes and consequences of digital inequalities. SAGE Publications.

Iannone, R. (2007). Società dis-connesse: La sfida del digital divide. Armando Editore.

Istituto Nazionale di Statistica [Istat]. (2026). Cittadini e ICT: Uso di Internet, personal computer e nuove tecnologie. Istat Report. https://www.istat.it

Marangi, M., Pasta, S., & Rivoltella, P. C. (2022). Povertà educativa digitale: Costrutto, strumenti per rilevarla, risultati. In SIREM (Ed.), Apprendere con le tecnologie tra presenza e distanza (pp. 23-38). Sirem.

Marangi, M., Pasta, S., & Rivoltella, P. C. (2023). Povertà educativa digitale: Costrutto, strumenti di rilevazione, primi dati. QTimes - Journal of Education, Technology and Social Studies, 15(1), 1-19. https://www.qtimes.it/?p=file&d=202301&id=marangi-pasta-rivoltella_qtimes-jetss_gen23_1.pdf

Mascheroni, G., & Ólafsson, K. (2024). Digital skills, risks and wellbeing among European children: A longitudinal perspective. Routledge.

Merton, R. K. (1968). The Matthew effect in science: The reward and communication systems of science are considered. Science, 159(3810), 56-63. https://doi.org/10.1126/science.159.3810.56

Micheli, M., Sacco, P., & Lombardo, C. (2024). Vite connesse a metà: Capitale digitale e nuove stratificazioni sociali in Italia. FrancoAngeli.

Morozov, E. (2011). The net delusion: The dark side of internet freedom. PublicAffairs.

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

Norris, P. (2001). Digital divide: Civic engagement, information poverty, and the internet worldwide. Cambridge University Press. https://doi.org/10.1017/CBO9781139164887

OECD. (2019). Skills matter: Additional results from the survey of adult skills. OECD Skills Studies. OECD Publishing. https://doi.org/10.1787/1f029d8f-en

OECD. (2023). PISA 2022 results (Volume I): The state of learning and equity in education. OECD Publishing. https://doi.org/10.1787/53f23881-en

Pratesi, M. (2022). Povertà educativa: perché e come misurarla anche a livello territoriale. Alcune analisi e proposte. Social Policies, 9(3), 373-398.

Ranci, C. (A cura di). (2010). Social vulnerability in Europe: The new configuration of social risks. Palgrave Macmillan. https://doi.org/10.1057/9780230274983

Robinson, L., Schulz, J., Blank, G., Ragnedda, M., Ono, H., Hogan, B., Mesch, G. S., Cotten, S. R., Reisdorf, B. C., Turow, J., & Khilnani, A. (2020). Digital inequalities 2.0: Legacy inequalities in the information age. First Monday, 25(7). https://doi.org/10.5210/fm.v25i7.10842

Rodotà, S. (1997). Tecnopolitica: Servizi di informazione e democrazia diretta. Laterza.

Rodotà, S. (2010). Una costituzione per Internet. Politica del diritto, 3, 337-351.

Sartori, L. (2006). Il divario digitale. Internet e nuove disuguaglianze sociali (pp. 1-200). Il mulino.

Save the Children Italia. (2021). Riscriviamo il Futuro: una rilevazione sulla povertà educativa digitale. Roma: Save the Children Italia.

Schizzerotto, A., & Barone, C. (2022). Sociologia dell'istruzione: Strutture, processi e disuguaglianze. Il Mulino.

Sen, A. (1992). Inequality reexamined. Oxford University Press.

Shils, E. (1975). Center and Periphery: Essay in Macrosociology. University of Chicago Press, Chicago.

Sottocorno, M. (2025). Povertà educativa e accessibilità della conoscenza nelle società iperconnesse [Tesi di Dottorato, Università degli Studi di Milano-Bicocca]. BOA - Bicocca Open Archive.

Srnicek, N. (2017). Capitalismo delle piattaforme. Laterza.

Stella, R., Riva, C., Scarcelli, C. M., & Drusian, M. (2024). Sociologia dei new media (3ª ed.). UTET Università.

van Dijk, J. A. G. M. (2000). Models of digital democracy. In Hacker, K. L., & van Dijk, J. A. G. M. (Eds.), Digital democracy: Discourse and decision making in the information age (pp. 30-47). SAGE Publications. https://doi.org/10.4135/9781446218877.n3

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.

Van Dijk, J. A. G. M. (2020). The digital divide. Polity Press.

Weber, M. (1999). Economia e società (Vol. 1). Donzelli. (Opera originale pubblicata 1922).

Zaccone, F. (2024). Online mothers: perspectives of a new motherhood in the social media era. Addiction & Social Media Communication, 1(2).

© 2024 by the Author(s); licensee Journal Addiction & Social Media Communications, Messina, Italy.
This article is an open access article, licensed under a Creative Commons Attribution 3.0 Unported License.