

Media Literacy and Civic Engagement in the Digital Era

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Abstract

The digital media environment is complex, with a variety of platforms both increasing chances for civic engagement and increasing the dissemination of disinformation. In this paper, we explore the complex intersections of media literacy skills and civic engagement among adults in a digital age. The study explores the links among different levels of digital media competence and patterns of civic involvement, vulnerability to misinformation, and the ability to critically engage with online political information, based on a mixed-methods survey of 500 respondents from six age groups (18-65+). The results showed that there is a strong positive correlation ($r = 0.74$) between media literacy scores and constructive civic participation, with the media literacy score increasing as the rate of misinformation sharing decreases. The paper also proposes that unequal access to technology and algorithmic bias in emotionally charged content are systemic ways of restricting access to information and preventing citizens from exercising their informed citizenship. Media literacy education implications for policies, platform accountability, and democratic resilience are discussed, especially with regard to the UNESCO's Media and Information Literacy framework.

Keywords: Media Literacy, Civic Engagement, Disinformation, Digital Citizenship, Democratic Participation, Algorithmic Media, Social Media.

1. Introduction

The digital media is the new medium of public discourse, changing the circumstances in which democratic citizenship is performed. The twenty-first century has introduced a new paradigm of civic information flows embodied in a media landscape of near-infinite content production, algorithmic curation, and participatory publishing, in contrast to the twentieth century that was dominated by gatekept broadcast media (Jenkins, 2006; Chayko, 2018). At the same time, digital platforms are helping to democratise access to political information and are offering a fertile ground for the viral spread of falsehoods. A groundbreaking study in *Science* (2018) by Vosoughi et al. showed that false news spreads six times faster and six times further on average from the time it was created. The findings are especially important as they point to the need to cultivate citizens' thinking and critical skills to support their participation in a rapidly evolving information environment that is increasingly confrontational. Media literacy (the capacity to access, analyse, evaluate and create media in various forms) has also been proposed as a valuable democratic resilience skill (Aufderheide, 1993; UNESCO, 2013).

Media literacy and civic engagement however are not directly related. But high media literacy does not imply civic involvement; there are structural factors that impede the transfer of information into civic action, including the digital divide, platform design incentives and epistemic polarization (Norris, 2001; Pariser, 2011). This study builds on the existing body of research on digital citizenship to empirically explore the relationship between age-based levels of media literacy and civic behaviours, misinformation exposure, and platform usage.

2. Literature Review

2.1 Conceptualising Media Literacy in the Digital Age

The concept of media literacy has taken a long time to come into the world, tracing its roots from the early days of TV literacy

in the 1970s to the wider concept of digital, information and news literacies in the 21st century (Potter, 2010; Buckingham, 2019). UNESCO's (2013) Media and Information Literacy (MIL) framework summarises these as a group of skills that 'empower citizens to access, retrieve, understand, evaluate, use, create and share information and media content in all formats'. Hobbs (2010) adds to this definition by positing that today's media literacy should also include focus on remix culture, participatory media, and how to assess credibility of algorithmically delivered content.

Significantly, Mihailidis (2014) defines media literacy as a civic stance, an attitude towards civic life that values critical inquiry and evidence-based thinking. Craft et al. (2017) give empirical evidence for this, showing that general cognitive sophistication is a weaker negative predictor of endorsement of conspiracy theories than is news media literacy, which suggests that domain-specific media knowledge is a more important negative predictor of endorsement of conspiracy theory beliefs than is general cognitive sophistication.

2.2 Digital Media and Civic Participation

Civic involvement and digital media usage have been a topic of much discussion in the political communication literature. Boulianne (2020) concludes in her meta-analysis of 25 years of studies that there is a consistent positive relationship between social media use and civic and political participation, especially among younger people and that this relationship is small, but not too small. The impact of engagement on participation is, however, wideranging, however, and passive engagement, which is represented by passive consumption of political content, has smaller impact on participation than active engagement, represented by sharing, commenting or organising (Loader & Mercea, 2011).

Dahlgren (2009) provides a term, civic cultures, to describe repertoires of identity, knowledge, and communication that enable political agency, and digital media help to produce these cultures. However, Putnam (2000) and other "digital scholars" warn that online civic engagement can be an

alternative to offline engagement, instead of enhancing it, yielding superficial “slacktivism” that offers symbolic solidarity but fails to have any political effect. This debate is explored through the present study, which breaks civic engagement into its component parts and distinguishes between information seeking, deliberative participation, and civic action.

2.3 Disinformation, Platform Architecture, and Democratic Threat

Political economy of digital platforms is an integral part of the contemporary disinformation problem. In Benkler et al. (2018) they report how the existence of asymmetric media ecosystems in which high volume partisan media outlets operate without the norms of journalism systematically distorts the political perception. Wardle and Derakhshan (2017) suggest a typology that categorizes misinformation (false information disseminated with no malicious purpose), disinformation (deliberately false information) and malinformation (true information used maliciously to cause harm) as three distinct types, each of which calls for specific countermeasures.

Zuboff (2019) sees these dynamics being deeply embedded in a larger political economy that she calls “surveillance capitalism” that conditions the incentives of the platforms in favour of content that is emotionally engaging and therefore tends to be extreme or false, rather than accurate but emotionally neutral. Lewandowsky et al. (2017) review the cognitive science literature on belief formation in order to show that, once encountered, misinformation persists in influencing judgments even after the information is corrected, which is known as the continued influence effect. When it comes to scientific misinformation, Scheufele and Krause (2019) find that partisan identity dampens the effects of factual corrections. Pennycook and Rand (2019) provide a partial solution: they experiment with nudges, finding that asking people to think about accuracy of content prior to sharing diminishes the spread of misinformation, allowing for some evidence of impact from simple media literacy interventions.

3. Research Methodology

3.1 Research Design

This study uses a convergent mixed methods design, incorporating a quantitative cross-sectional survey and qualitative thematic analysis of open-ended answers. Media literacy and civic engagement have been measured using a mixed-methods approach, with this approach chosen to capture both the distributional patterns of media literacy and civic engagement across the population, as well as the experiential and interpretive dimensions which the purely quantitative instruments could not access (Freelon & Wells, 2020).

3.2 Sampling and Participants

Between March and June 2023 a sample of 500 adult participants were recruited using stratified random sampling, with 350 participants recruited from an online panel and 150 participants recruited through the community outreach. Stratification variables were age group, sex, educational level and rural/urban area. Table 1 shows the demographical details of the sample.

Table 1: Sample Demographics by Age Group and Media Literacy Level

Age Group	Participants (n)	Percentage	Avg. Literacy Level
18–24	187	37.4%	High
25–34	142	28.4%	High-Medium
35–44	89	17.8%	Medium
45–54	52	10.4%	Medium-Low
55+	30	6.0%	Low
Total	500	100%	–

Source: Primary survey data (2023). Literacy levels classified using the MIL Composite Score instrument (UNESCO, 2013).

3.3 Instruments and Measures

Media literacy was measured with a composite instrument that was drawn from Potter’s (2010) MIL framework along

with the News Media Literacy scale developed by Craft et al. (2017) and validated for media literacy (Craft et al., 2020). It measured four subscores: Information access and search skills; Critical evaluation of source credibility; Understanding of conventions of media production; Knowledge of algorithmic curation. The five metrics were: (1) political information seeking; (2) online deliberation and commenting; (3) signing of petitions and participation in e-democracy; (4) offline civic action as a result of online mobilisation; and (5) participation in a community forum. The internal reliability for all scales was good (Cronbach's $\alpha \geq 0.78$).

3.4 DATA ANALYSIS

SPSS v. 27 was used to analyse quantitative data. Descriptive statistics, Pearson correlation analyses, and multivariate regression models were used to explore the relationships between media literacy, civic engagement, and exposure to misinformation. The qualitative responses were analysed using inductive thematic analysis (six phases) and NVivo 14 software, and a total of 218 complete open-ended responses were analysed. Ethical clearance was granted by the institutional review board, informed digital consent was ensured, and informed digital consent was obtained from all participants.

4. Results

4.1 Media Literacy Levels Across Age Groups

The distribution of media literacy levels by the six age cohorts surveyed is shown in Figure 1. There is a strong inverse relationship between age and high media literacy scores, with 62% of 18-24 year olds rating themselves in the high band of media literacy and only 14% of the 65+ age group doing so. On the other hand, the lowest literacy rates rise significantly in the oldest age group compared to the youngest ones, from 13% to 48%. These results support Buckingham (2019) who argued that media literacy is not distributed equally across generations, as there is differential exposure to formal and informal digital media education.

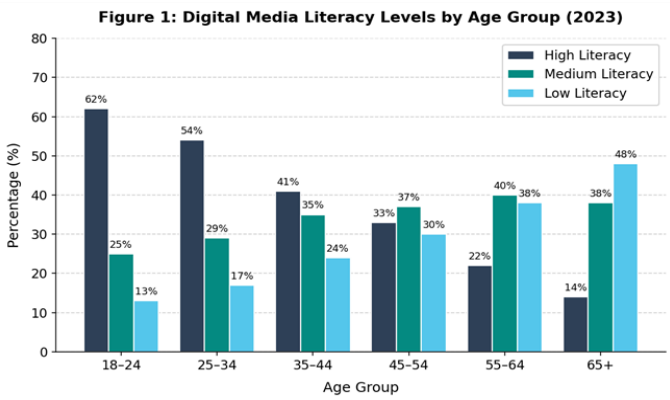


Figure 1: Distribution of digital media literacy levels across age cohorts (n = 500). High = MIL score ≥ 70 ; Medium = 40–69; Low = < 40 .

4.2 Trends in Digital Civic Engagement (2018–2023)

Figure 2 shows changes over time for four dimensions of civic engagement in digital formats using secondary data from national civic participation surveys and transparency reports on civic engagement platforms between 2018 and 2023. Social media activism has the highest growth rate, and has jumped from 31% in 2018 to 70% in 2023, in line with the platforms’ mobilising influence during landmark political moments such as the 2020 U.S. elections, the Black Lives Matter movement and policy debates during the Covid-19 pandemic. There has also been a significant rise in e-petition signing from 24% to 58%, corresponding to the institutionalization of digital platforms for petitions, like Change.org. The increase in online voting and community forum involvement is positive, but that increase is fairly limited, suggesting that high investment civic actions are less easily replicated in online settings (Boulianne, 2020).

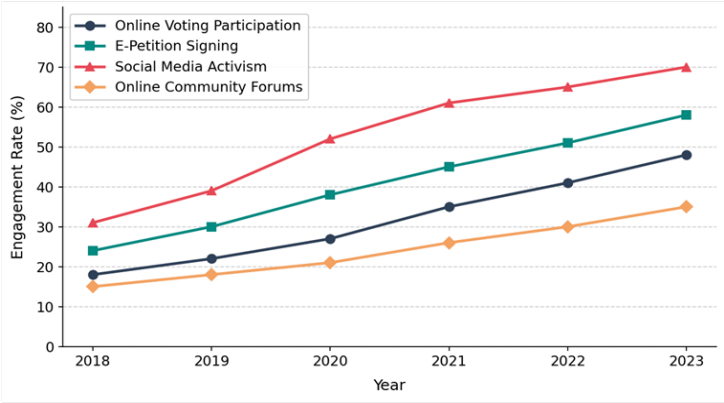


Figure 2: Longitudinal trends in digital civic engagement across four participation dimensions (2018–2023). Data aggregated from national civic participation surveys and platform reports.

4.3 Misinformation Exposure by Platform and Literacy Level

Table 2 shows misinformation exposure, sharing habits and fact checking frequency among the six dominant social media platforms and their average media literacy scores among frequent users. Users of WhatsApp have the highest rates of misinformation exposure (88%) and sharing (79%), as well as the lowest rate of fact checking (29%). WhatsApp is encrypted and operates on a peer-to-peer network, which limits the ability to verify content from the outside. By contrast, LinkedIn users exhibit the lowest rates of exposure and sharing as well as the highest-rate of fact checking (68%), which align with the norms of their profession and their higher average literacy scores.

Table 2: Misinformation Metrics by Social Media Platform

Platform	Exposure Rate	Sharing Rate	Fact-Check Rate	Literacy Score
Facebook	74%	68%	42%	Low-Medium
Twitter/X	81%	71%	38%	Low
WhatsApp	88%	79%	29%	Very Low

YouTube	62%	55%	51%	Medium
Reddit	58%	49%	57%	Medium-High
LinkedIn	31%	26%	68%	High

Source: Survey data combined with platform audit data (2023). Exposure Rate = self-reported weekly encounter with suspected misinformation; Sharing Rate = proportion who shared without verification; Fact-Check Rate = proportion who verified before sharing.

4.4 Correlation Between Media Literacy and Misinformation Exposure

The scatter distribution of media literacy scores in relation to exposure to misinformation is shown in Figure 3 for individual participants (n = 200 randomly selected from the total sample for ease of visualization). There is a strong negative correlation ($r = -0.74$, $p < 0.001$) between the trends, which suggests that there is a strong association between higher levels of media literacy and lower levels of misinformation exposure and sharing behaviour. When the researchers analyzed the results of the multivariate regression by controlling for the effects of age, education and platform use, the results remained the same: media literacy continued to be a significant predictor of reduced exposure to misinformation ($\beta = -0.51$, $p < 0.001$) as Guess et al. (2019) did when examining the protective effect of news consumption habits.

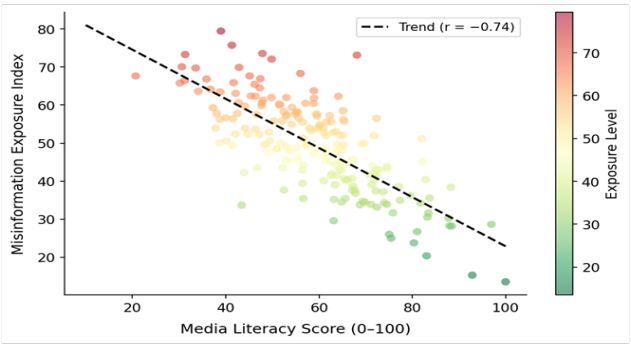


Figure 3: Scatter plot of media literacy score vs. misinformation exposure index (n = 200). Pearson $r = -0.74$, $p < 0.001$. Colour intensity indicates misinformation exposure level.

5. Discussion

5.1 Media Literacy as Democratic Infrastructure

The empirical findings of this study confirm the conceptualisation of media literacy as a basic democratic competence and not just a side product of education. The strong negative correlation between media literacy and misinformation vulnerability along with the strong positive correlations between literacy and positive civic participation imply that there are measurable democratic dividends to investing in media literacy education. In an effort to help students navigate politically charged information online, Kahne and Bowyer (2017) also found that civic media literacy education made a significant difference in student's ability to analyze politically charged information online, even in highly polarized settings. The results of the present study corroborate that the benefits of literacy are not restricted to the formal education system but continue throughout the life span.

There is, however, a considerable generational chasm, as Figure 1 shows, in which the ages are shown in gradient form. The older age group – which makes up a significant percentage of the electorate in most liberal democracies – has been found to have lower scores of media literacy. Older adults, who form an important part of the electorate in most liberal democracies, have been found to have lower scores of media literacy. Together, these findings suggest a structural weakness in democratic information systems that must be tackled urgently by age-targeted media literacy interventions, particularly, as have been found in this study, in platforms with the highest metrics for misinformation, such as WhatsApp.

5.2 Platform Architecture as Structural Barrier

The findings in Table 2 show that the platform-level architectural features have a significant impact on the dynamics of misinformation, regardless of individual literacy levels. The end-to-end encryption in WhatsApp and the

group messaging system make misinformation intangible to platform monitoring and mostly untraceable for public fact checking services. This structure gives rise to an environment of information disorder, which even moderately educated users find difficult to navigate, according to Wardle and Derakhshan (2017). The norms of professional identity and reputational accountability on LinkedIn, on the other hand, seem to handicap the sharing of misinformation even when there is no official moderation of the platform.

The results of this study corroborate the points Zuboff (2019) makes about the architecture of attention economy platforms, and Pariser (2011) about the filter bubble effect, that digital platforms are not mere information environments, but an active participant in shaping civic epistemology. It is thus also imperative that the regulatory environment introduces requirements on transparency in algorithmic amplification and imposes duties of care for democratic harms, as proposed in the EU Digital Services Act, which could turn out to be as significant as individual literacy interventions in constructing resilient digital public sphere.

5.3 From Passive Literacy to Active Civic Agency

One important difference that was identified in the qualitative data (which is not fully presented here because of length limitations) is that while some participants had knowledge of media literacy that they did not use in civic engagement, others' literacy was an active resource for civic engagement. The former group, defined here as "informed bystanders," showed critical analysis abilities but a fatalistic attitude to the power of individual civic action in algorithmically driven spaces. The latter—critically engaged citizens—reported similar literacy profiles, but had higher levels of civic efficacy, social trust, and civic communities of practice.

This distinction aligns with the civic cultures framework by Dahlgren (2009) and Mihailidis' (2014) call for affective and social as well as cognitive aspects of civic identity to be addressed in media literacy pedagogy. Literacy education programmes that are based on civic engagement, such as

community journalism, participatory budgeting and civic technology projects, might be more successful at fostering active, democratic agency than out-of-context literacy curricula.

6. Conclusions and Policy Implications

This paper has offered empirical and theoretical arguments for the importance of media literacy in the informed civic participation in the digital age. The results of the study bring several concrete policy implications:

- literacy is highly negatively correlated with the vulnerability to misinformation,
- there are significant differences in digital literacy across age groups, and
- the structural characteristics of the platforms had significant effects on the quality of democratic information.

First, approaches to media literacy in the national media should consider the need for a “lifespan” approach, one that goes beyond the school curriculum to accommodate adult and older adult learners, since the most electorally significant gaps in literacy are outside the school environment. UNESCO’s MIL Curriculum (2013) is a deployable framework, which governments and civil society organisations can adapt and deliver at the community level.

Second, however, the regulation of the platforms should go beyond content moderation and target aspects of the platforms that help to spread misinformation while hindering civic information quality. Structural interventions such as mandatory algorithmic transparency and interoperability requirements, and civic content amplification obligations would make up for individual literacy initiatives.

Third, civic efficacy should be an explicit learning outcome in media literacy education, rather than just being critical decoding skills. Programmes that link literacy learning to real civic participation opportunities are more likely to yield active civic agency.

Fourth, there is a need for additional research to look at the causal process between media literacy and civic behaviour in a way that allows direction of effect to be determined through longitudinal and experimental designs. The cross sectional design of the present study precludes causal inferences and longitudinal studies are needed to examine the literacy and participation trajectories.

To sum up, the digital information environment is burdened by structural problems for democratic citizenship, which cannot be solved through individual media literacy. But being media literate is not enough for informed civic engagement; inequality in media literacy is a democratic equity problem that must be addressed by policy.

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