

Information Threats And The Problem Of Solidarity In The Digital World

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Abstract

This article examines the dual relationship between digital transformation and social solidarity, focusing on how information threats – disinformation, manipulative content, propaganda, and cyber insecurity – shape the possibilities and limits of cohesion in contemporary networked societies. The study synthesizes theoretical and empirical literature on the information society (Webster, Castells, Bühl), the conceptually contested notion of social cohesion (Cuellar, Easterly, Pervaiz, Dheret, Beauvais and Jenson), and emerging research on digital threats to solidarity (Alsina, Black, Choi, Deveaux, López-Rabadán) in order to develop an integrated framework for understanding solidarity in digital space. The results indicate that digital technologies simultaneously expand the infrastructural capacity for cooperation and generate structural vulnerabilities – algorithmic polarization, disinformation, and “transitive” or ephemeral forms of online solidarity – that can undermine the durability of social bonds. The discussion situates these findings within the policy context of Uzbekistan, where rapid growth in internet and mobile penetration, alongside youth-dominated digital participation, renders information security and media literacy matters of pressing national concern. The article concludes that sustaining genuine, durable social cohesion in the digital era requires a coordinated strategy integrating legal and institutional safeguards for information security, the systematic development of media and digital literacy, and the deliberate cultivation of solidarity mechanisms that extend beyond the transitive engagement patterns characteristic of networked communication.

Keywords: information society; social cohesion; social solidarity; digital threats; disinformation; cybersecurity; media literacy; virtual social capital; Uzbekistan

1. Introduction

The twenty-first century has been defined by the rapid diffusion of information technologies and social networking platforms, a development that lends practical confirmation to decades of theoretical reflection on the nature of the information society. Contemporary social media platforms have become significant instruments in the formation of solidarity at both the micro level – small groups, communities, and networked collectives – and the macro level, encompassing broad social strata and society-wide unity. Digital communicative space has thus emerged as an important social factor generating new forms and mechanisms of social cohesion in contemporary society. At the same time, the deep penetration of digital technologies into nearly every domain of human life has rendered information security one of the most pressing challenges of the era: as the velocity of information exchange through the internet and social networks accelerates, disinformation, manipulative content, and cyber threats increasingly bear upon the social cohesion and stability of societies.

This tension is not merely incidental but structural. On one hand, digital platforms provide an unprecedented infrastructure for global connectivity, enabling cooperation and communication among individuals across diverse regions and cultural spaces, and giving rise to virtual communities and solidarity networks that transcend geographic and social boundaries. On the other hand, the same infrastructure that enables this connectivity also facilitates the rapid, low-friction propagation of disinformation, propaganda, and algorithmically reinforced polarization – phenomena whose cumulative effect may be to erode rather than strengthen social cohesion. This duality is compounded by a deeper conceptual difficulty: the very notion of “social cohesion” remains, in the scholarly literature, a contested and imprecisely bounded term, subject to divergent theoretical interpretations – egalitarian, communitarian, liberal, and nationalist – none of which fully captures its multifaceted empirical manifestations.

2. Materials and Methods

This study adopts a qualitative, interpretive methodology grounded in socio-philosophical and conflictological analysis. Its evidentiary base comprises theoretical literature on the information society (F. Webster, M.

Castells, A. Bühl), conceptual and empirical scholarship on social cohesion (J. Cuellar; W. Easterly, J. Ritzen, and M. Woolcock; Z. Pervaiz, T. Chaudhary, and I. van Staveren; C. Dheret; E. Beauvais and J. Jenson), and recent studies of digital threats to solidarity, including algorithmic polarization (R. Alsina; L. Black), disinformation dynamics (H. Choi; K. Deveau), and mobile-communication transformation (P. López-Rabadán; Zufar and Airlangga; S. Mazumdar; H. Bauder).

The analytical procedure comprised three stages. First, the conceptual architecture of the information society and its principal technological drivers (mobile computing, artificial intelligence, big data, the Internet of Things) were reconstructed in order to establish the structural context within which digital solidarity and information threats co-emerge. Second, the contested concept of social cohesion was examined through comparative analysis of its major theoretical interpretations, in order to identify a working definition adequate to digital-era conditions – namely, cohesion as non-coerced, non-purely-self-interested cooperation among society's members. Third, the principal categories of information threat – disinformation, propaganda, algorithmic polarization, and cyber insecurity – were analyzed for their differentiated effects on the durability and authenticity of digitally mediated solidarity, with particular attention to the concept of “transitive solidarity” as a distinctively digital, and potentially fragile, form of collective bonding.

As with comparable qualitative-conceptual studies, this analysis does not aim to quantify the prevalence or relative impact of the phenomena examined; rather, it seeks to map their conceptual relationships in a manner that can inform both future empirical research and policy design, including in the specific national context of Uzbekistan discussed in Section 4.

3. Results

3.1 The Digital Transformation of Society and the Concept of Information

Information has always occupied a central place in both collective and individual life, but its role has been qualitatively transformed by the technological developments of recent decades. The proliferation of smartphones and mobile devices inaugurated what researchers term the era of mobile computing, fundamentally altering the forms of human communication and giving rise to new categories of services and applications embedded in daily life. This transformation has been compounded by the accelerated development of artificial intelligence and big-data technologies, which enable the automation of complex processes, the deep analysis of large data volumes, and the refinement of decision-making – developments that have extended machine learning, speech recognition, and computer vision into virtual assistants, intelligent systems, and autonomous vehicles, while the Internet of Things connects household, industrial, and urban infrastructure to networked systems of unprecedented scope.

Scholars broadly concur that no single, unified conceptual definition of the “information society” exists, a state of affairs that itself testifies to the continuing relevance of research in this domain; as Webster's critique of the numerous quantitatively grounded definitions of the information society suggests, the phenomenon is irreducibly multidimensional. What can be stated with confidence is that the digital society is characterized by the deep penetration of digital technologies into virtually every domain – economy, politics, education, culture, and communication – such that the production, processing, and dissemination of information become primary forms of social activity in their own right. In Uzbekistan specifically, this transformation is reflected in internet usage exceeding thirty-one million individuals and mobile connectivity exceeding thirty-two million subscribers, with young people constituting the most active participant segment, a demographic pattern consistent with global trends in which youth dominate digital and social-network engagement.

3.2 Conceptualizing Social Cohesion: Theoretical Ambiguity and Scholarly Debate

Unlike widely used concepts such as “justice” or “power,” whose everyday meanings offer a reasonably stable point of departure for scholarly analysis, “social cohesion” functions as a specialized scientific term lacking clearly demarcated boundaries, and is consequently vulnerable to vague or contested interpretation, as well as to political appropriation by governments and international organizations whose usage of the term may shift according to the interests of dominant actors – a pattern observed with comparable ambiguous constructs such as “sustainability” and “transformation.” Divergent theoretical schools offer correspondingly divergent interpretations: egalitarian approaches emphasize fraternal goodwill and positive mutual regard; nationalist perspectives stress shared ethnic or national belonging; communitarian approaches emphasize shared agreement on core goals and values; and liberal approaches ground cohesion in principles of tolerance and mutual respect. Each of these frameworks, however, admits significant exceptions: cohesive societies may

exhibit hierarchical rather than fraternal relations; ethnically homogeneous societies may lack tolerance toward out-groups while still displaying strong internal cohesion; and societies whose members hold divergent values may nonetheless sustain meaningful cooperation.

This theoretical ambiguity suggests that social cohesion cannot be reduced to any single relational form; it is better understood as a complex social phenomenon capable of diverse empirical manifestations, most productively conceptualized as non-coerced cooperation among society's members that is not grounded solely in individual self-interest. Despite this conceptual indeterminacy, empirical research associates higher levels of social cohesion with more stable democratic institutions and greater civic participation (Cuellar), stronger and more resilient economic performance (Easterly, Ritzen, and Woolcock), improved population well-being and living standards (Pervaiz, Chaudhary, and van Staveren), enhanced inclusivity and inter-group tolerance (Dheret), and better public health outcomes (Beauvais and Jenson) – a convergence of findings that underscores the practical stakes of understanding how digital transformation bears upon cohesion, notwithstanding the concept's persistent theoretical elusiveness. At the same time, high cohesion is not unambiguously positive: societies that emphasize internal solidarity too strongly may become exclusivist toward minorities or migrants, and local traditions that reinforce in-group cohesion can conflict with national or international legal norms, as in cases where customary gender hierarchies clash with principles of gender equality – indicating that cohesion-building must be pursued in a manner attentive to inclusivity rather than treated as an unconditional good.

3.3 Digital Technologies as a Double-Edged Force for Solidarity

Digital technologies exert a genuinely double-edged influence on social solidarity. On the constructive side, online platforms and social networks have considerably simplified the rapid organization of social initiatives, charitable campaigns, and collective action; as researchers note, the rapid dissemination of information through digital platforms enables broader participation in social initiatives and strengthens the process of coalescing around shared goals, allowing geographically dispersed individuals to cooperate and unite around common social purposes. Educational access has been similarly transformed: digital technologies expand learning opportunities by creating open, inclusive educational environments unconstrained by geographic boundaries, contributing to the democratization of education more broadly.

On the destructive side, however, online-formed solidarity may weaken under the influence of specific digital dynamics. Discussions and debates on social networks frequently devolve into sharp polarization, a tendency reinforced by platform algorithms that preferentially display content aligned with users' existing views, thereby deepening the gap between groups holding divergent perspectives; such polarization, in turn, degrades constructive dialogue between social groups and intensifies inter-group conflict. A further obstacle to digitally mediated solidarity is the rapid propagation of misinformation and disinformation, which, absent adequate fact-checking, generates confusion and distrust within society – a dynamic that becomes especially consequential during crises or emergencies, when the spread of false information can disrupt a society's capacity for collective action. Taken together, these countervailing tendencies indicate that digital technologies create new opportunities for solidarity formation while simultaneously generating new categories of social and informational risk, such that their net effect on cohesion depends substantially on the governance, literacy, and normative frameworks within which they are embedded.

3.4 Information Threats: Disinformation, Propaganda, and Cyber Insecurity

Among the various threats examined in this study, disinformation – the deliberate dissemination of false or misleading information aimed at shaping public opinion – has become especially prevalent, its propagation accelerated markedly by the popularization of social networks. Documented instances include the circulation of fabricated news and manipulative content during electoral periods in numerous countries, understood as instruments for influencing public opinion and interfering in political processes, as well as the widespread dissemination of false medical information, unsubstantiated treatment claims, and anti-vaccination content during the COVID-19 pandemic – developments that intensified public distrust and generated conflicting currents of opinion within affected societies.

A closely related but analytically distinct threat is propaganda – systematic informational activity aimed at popularizing particular political or ideological positions – which in the contemporary environment is no longer confined to traditional mass media but is disseminated through social networks, video platforms, and websites, with certain states and political groups conducting dedicated informational campaigns on social networks to

promote specific agendas, thereby directing public opinion toward particular ends. The intensification of information threats more broadly has elevated cybersecurity – the protection of information systems, databases, and digital infrastructure from cyberattacks – to a matter of pressing national concern, as demonstrated by documented cyberattacks against state institutions, banking systems, and major corporations, including incidents affecting energy infrastructure that produced temporary technological disruption and data loss, developments that underscore the necessity of treating cybersecurity as a core component of national security policy.

A further dimension of digital-era information threats concerns the phenomenon of virtualization itself. Drawing on A. Bühl's theory of the “virtual society,” in which the computer evolves from a calculating machine into a universal instrument for generating “mirror worlds,” contemporary social systems increasingly incorporate parallel virtual analogues – economic interactions and political activity conducted through internet networks, and communicative engagement with characters in computer games – such that immersion in virtual reality can distance individuals from lived reality and truth. This dynamic carries particular consequences for younger users: research indicates that children below approximately ten years of age typically lack the critical and analytical capacities necessary to filter and evaluate information independently, rendering the protection of the developing worldview of the younger generation an urgent contemporary concern, especially as school-age children increasingly gain early and largely unsupervised internet access.

4. Discussion

The findings assembled in this study converge on a central conclusion: digital technologies neither straightforwardly strengthen nor straightforwardly undermine social cohesion, but instead generate a structurally ambivalent environment whose net effect depends on the interplay between technological affordances, information governance, and citizen literacy. The conceptual ambiguity surrounding “social cohesion” itself (Section 3.2) compounds this ambivalence: absent a stable, agreed definition, it becomes correspondingly difficult to assess whether digitally mediated forms of solidarity – including the transitive, event-triggered solidarities examined in Section 3.5 – constitute genuine advances in social cohesion or merely its simulacrum, a fragile and rapidly dissolving approximation lacking the durability of offline social bonds. For Uzbekistan specifically, these findings carry direct relevance. With internet penetration exceeding thirty-one million users and mobile connectivity exceeding thirty-two million subscribers, and with young people constituting the most digitally active demographic, the country is positioned to benefit substantially from the cohesion-generating potential of digital platforms – including their capacity to mobilize civic initiatives, expand educational access, and connect geographically dispersed communities. At the same time, this same demographic profile renders Uzbekistan particularly exposed to the information threats examined in Section 3.4: disinformation, propaganda, and the virtualization dynamics that most acutely affect younger, less critically equipped users. This suggests that national information policy should proceed on parallel tracks: strengthening the legal, institutional, and technical foundations of cybersecurity and information governance, while simultaneously investing in media-literacy education capable of equipping citizens – and young people in particular – with the critical faculties necessary to navigate an information environment characterized by rapid, algorithmically amplified content flows.

The analysis further suggests that policy responses should be attentive to the distinctive fragility of transitive, digitally mediated solidarity. Where policymakers or civil-society actors seek to leverage digital platforms for social cohesion – whether in disaster response, civic mobilization, or community-building initiatives – the transitive character of online solidarity implies that digital engagement alone may be insufficient to sustain durable cooperation; digital mobilization efforts may therefore be most effective when designed to transition participants toward more durable, offline or institutionally anchored forms of engagement, rather than relying on digital connectivity as a self-sufficient mechanism of cohesion.

Several limitations of the present analysis should be noted. As a qualitative-conceptual synthesis of secondary literature, the study does not provide original empirical measurement of cohesion levels, disinformation prevalence, or media-literacy outcomes within Uzbekistan specifically; such measurement would require dedicated survey research and digital-trace analysis. Additionally, while the theoretical literature reviewed here spans multiple national and disciplinary contexts, systematic comparative research across Central Asian societies confronting broadly similar digital-transformation trajectories would considerably strengthen the generalizability of the framework proposed here.

5. Conclusion

This article has examined the relationship between digital transformation and social solidarity, with particular attention to the information threats – disinformation, propaganda, algorithmic polarization, and cyber insecurity – that complicate this relationship. The analysis demonstrates that digital technologies constitute a genuinely double-edged force: they expand the infrastructural and communicative capacity for cooperation, education, and civic mobilization, while simultaneously generating structural vulnerabilities that can erode trust, deepen polarization, and produce forms of solidarity – transitive, event-triggered, and often short-lived – that fall short of the durability associated with more traditional, offline social bonds. The conceptual ambiguity surrounding social cohesion itself compounds the difficulty of assessing these dynamics, underscoring the continuing need for theoretical clarification alongside empirical investigation.

For Uzbekistan and comparable societies undergoing rapid digital transformation, the central implication is that sustaining genuine social cohesion in the digital era requires a coordinated, multi-track strategy: strengthening the legal-institutional and technical foundations of information and cybersecurity; expanding media and digital literacy education, particularly among the youth who constitute the most digitally active demographic; and designing digital engagement initiatives with explicit attention to the transitive character of online solidarity, so as to translate digitally mediated cooperation into more durable social bonds. Future research should pursue empirical validation of this framework through survey-based and digital-trace analysis within Uzbekistan and the broader Central Asian region, in order to translate the conceptual synthesis offered here into evidence-based policy for the preservation of social cohesion under conditions of accelerating digital transformation.

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