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Social Dynamics in Education: The Role of Schools as Agents of Social Change in The Digital Era

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ABSTRACT

This study examines the role of secondary schools as agents of social change in the digital era, focusing on the social dynamics that occur within the educational context of Palu City. Digital transformation has fundamentally reshaped the landscape of education, creating both challenges and opportunities for educational institutions to act as catalysts for social change. Using a qualitative approach with a case study method, this research involved three secondary schools in Palu through participatory observation, in-depth interviews with principals, teachers, and students, as well as an analysis of school policy documents. The findings indicate that secondary schools in Palu have adopted digital technologies in their learning processes but still face challenges in terms of infrastructure, teachers' digital competence, and unequal access to technology among students. Schools play a vital role in fostering digital literacy, facilitating cross-cultural collaboration through digital platforms, and developing critical awareness of the social impacts of technology.

1. Introduction

The digital era has brought about fundamental transformations across various aspects of social life, including education. The massive penetration of information and communication technologies (ICT) has changed how individuals interact, communicate, and build social relationships. Within this context, educational institutions—particularly schools—face the dual challenge of adapting to technological change while positioning themselves as proactive agents of social transformation. Historically, schools have been recognized as crucial agents of socialization within society. Émile Durkheim emphasized that education performs a fundamental social function by fostering social solidarity and transmitting collective values from one generation to the next. In the digital era, this function becomes more complex as schools are required not only to deliver academic knowledge but also to cultivate digital competence, media literacy, and social skills relevant to 21st-century demands.

Palu City, the capital of Central Sulawesi Province, presents a unique case of social dynamics following the 2018 earthquake and tsunami disaster. Reconstruction and rehabilitation efforts have focused not only on physical recovery but also on rebuilding the education system that was severely disrupted. In this recovery context, the digitalization of education has become one of the key strategies to accelerate access to and improve the quality of learning. Nevertheless, the implementation of digital technology in education in Palu faces several challenges, including limited ICT infrastructure, unequal access to technology, and insufficient human resource readiness.

Research on the role of schools as agents of social change in the digital era is therefore essential to understand how educational institutions respond to and shape contemporary social dynamics. Previous studies have examined the adoption of technology in education, but few have explored the social dimensions of digitalization, particularly in local contexts such as Palu. Hence, this study aims to analyze the social dynamics occurring within secondary education, identify the role of schools as agents of social change, and evaluate the challenges and opportunities they face in optimizing their transformative role in the digital era.

The research questions guiding this study are:

1. How are social dynamics manifested within secondary education in the digital era?
2. How do secondary schools in Palu City fulfill their roles as agents of social change?
3. What challenges and opportunities do schools face in optimizing their role as agents of social transformation in the digital era?

2. Literature Review

2.1. The Concept of Social Dynamics in Education

Social dynamics refer to the processes of change that occur within the structures, functions, and social relations of a society. In the context of education, social dynamics encompass interactions among various actors—students, teachers, parents, and the community—along with shifts in values, norms, and educational practices influenced by both internal and external factors. From a sociological perspective, schools are not isolated entities but social systems that are deeply interconnected with the broader social context.

Pierre Bourdieu's concepts of *habitus*, *capital*, and *field* are useful in understanding how educational practices can either reproduce or transform social structures. In the digital era, these concepts become highly relevant in explaining how technology shapes new forms of *habitus* in educational practice and creates new types of capital—specifically *digital capital*—that influence individuals' social positions. Schools, as social fields, become arenas of contestation and negotiation between traditional and modern values in the face of digital disruption.

2.2 Schools as Agents of Social Change

The notion of schools as agents of social change originates from functionalist theories, which view education as an instrument for achieving social mobility and modernization. Talcott Parsons argued that schools function as mechanisms for the allocation of social roles and for the socialization of universal values necessary for social integration. However, critical theorists such as Paulo Freire emphasize that education should serve as a process of liberation that empowers individuals to challenge and transform oppressive social structures.

In the digital era, the role of schools as agents of social change is being redefined. UNESCO underscores that 21st-century education should be built upon four pillars of learning: *learning to know, learning to do, learning to be,* and *learning to live together.* Digital technology opens new opportunities to realize these pillars through more interactive, collaborative, and contextualized forms of learning. Schools are therefore expected not only to teach technical digital skills but also to foster responsible *digital citizenship* that promotes ethical participation in digital society.

2.3 Digital Transformation in Education

Digital transformation in education refers to the integration of digital technologies into all aspects of the educational process—from curriculum and pedagogy to school management. Selwyn argues that digitalization in education goes beyond the mere adoption of technology; it involves cultural change within institutions, pedagogical innovation, and shifts in social relations in the school environment. The digital era has ushered in a paradigm shift from teacher-centered to student-centered learning, and from knowledge transmission to collaborative knowledge construction.

However, digital transformation also presents multiple challenges. The *digital divide* remains a critical issue that may deepen social inequalities if left unaddressed. Van Dijk identifies four dimensions of the digital divide: motivational access, material access, skills access, and usage access. In Indonesia, studies have shown that the digital divide remains significant between urban and rural areas, as well as across socioeconomic groups. This disparity underscores the need for inclusive digital education policies that ensure equitable access to technological resources.

2.4 Digital Literacy and 21st-Century Competencies

Digital literacy has become a fundamental competence in the modern age. Gilster defined digital literacy as the ability to understand and use information from multiple formats and sources when presented through computers. The definition has since evolved into a more comprehensive concept encompassing technical, cognitive, and socio-emotional competencies in using digital technologies.

The Partnership for 21st Century Skills framework identifies three major categories of essential skills:

1. Learning and innovation skills (4Cs): critical thinking, communication, collaboration, and creativity.
2. Information, media, and technology skills.
3. Life and career skills.

Schools play a strategic role in developing these competencies through the integration of technology into curricula and teaching practices. However, the implementation of 21st-century skills education still faces challenges such as limited teacher competence, conventional curriculum design, and assessment systems that remain content-oriented rather than skills-based.

2.5 Local Context: Education in Post-Disaster Palu City

Palu City experienced a devastating earthquake and tsunami on September 28, 2018, which caused massive damage to educational infrastructure. In the aftermath, educational recovery became a top priority for the local government, focusing on rebuilding schools and revitalizing the education system. The digitalization of education has been one of the key strategies in this recovery process to strengthen the resilience of the education system and expand access to quality learning.

Nonetheless, the implementation of digital education in Palu faces unique contextual challenges. These include limited ICT infrastructure, lingering post-disaster trauma among students and teachers, and competing priorities in recovery programs. Research on social dynamics in education within post-disaster contexts remains scarce, making this study an important contribution to understanding how schools act as agents of social change under complex and challenging conditions.

3. Methodology

This study employed a qualitative approach with a case study design to gain an in-depth understanding of social dynamics in education and the role of schools as agents of social change in the digital era. The case study approach was selected because it allows for the exploration of contemporary phenomena within their real-life contexts, especially when the boundaries between phenomenon and context are not clearly defined.

The research was conducted at three secondary schools (SMA) in Palu City, selected purposively based on the following criteria:

1. Schools that have implemented digital learning programs.
2. Schools with diverse characteristics (public/private, accreditation level, and geographic location).
3. Schools that expressed willingness to participate in the study.

The participants of this study included three principals, twelve teachers, eighteen students, and three members of the school committee, selected through purposive and snowball sampling techniques.

3.1 Techniques Data Collection

Data were collected through three primary methods:

1. Participatory Observation – conducted over three months (July–September 2024) to observe digital-based learning processes, social interactions within the school environment, and the ways technology was used by teachers and students.
2. In-Depth Semi-Structured Interviews – carried out with all participants to explore their perceptions, experiences, and constructed meanings regarding the school's role in the digital era.
3. Document Analysis – conducted on school policy documents, curricula, and program materials related to digitalization efforts in education.

3.2 *Techniques Data Analysis*

Data analysis followed the thematic analysis approach proposed by Braun and Clarke, which includes the following stages:

1. Familiarization with data.
2. Generating initial codes.
3. Searching for themes.

4. Reviewing themes.
5. Defining and naming themes.
6. Producing the final report.

Data validity was ensured through source and method triangulation, member checking, and peer debriefing to enhance the credibility and reliability of findings.

3.3 Ethical Consideration

Ethical aspects of the study were maintained through obtaining informed consent, ensuring confidentiality, and guaranteeing voluntary participation. Participants were informed about the objectives of the study and had the right to withdraw at any stage without penalty.

4. Results and Discussion

4.1 Social Dynamics in Education in the Digital Era

The findings of this study indicate that the digital era has brought significant changes to social dynamics within secondary schools in Palu City.

The first finding reveals a transformation in the patterns of social interaction among students, teachers, and the wider school community. Digital technologies—especially social media and online learning platforms—have created new spaces of communication that transcend the physical boundaries of classrooms and formal learning time. Teachers and students now interact through WhatsApp groups, Google Classroom, and other platforms for academic discussions, assignment consultations, and even non-academic information sharing.

However, this transformation also introduces complex dynamics. Some senior teachers reported difficulties adapting to the fast, informal, and continuous communication style characteristic of digital platforms. One Indonesian language teacher (53 years old) expressed:

"In the past, boundaries between teachers and students were clearer. Now, they can contact me anytime through WhatsApp. I have to learn to balance openness with professionalism."

This statement supports Selwyn's argument that digital technologies reconfigure power relations and hierarchies in educational contexts.

The second dynamic concerns the emergence of a *digital divide* that affects students' participation and achievement. Observations and interviews revealed that not all students have equal access to devices and stable internet connections. In one suburban school, approximately 30% of students struggled to participate in online learning due to financial constraints following the 2018 disaster. A Grade 11 student shared:

"I often submit online assignments late because I have to go to an internet café or borrow a friend's phone."

This confirms Van Dijk's concept of *material access* as a key dimension of the digital divide, which may reinforce social stratification within education.

The third dynamic relates to changing values and social norms among students. The digital era influences how young people construct identity, express themselves, and form social relationships. The findings indicate that students are now more open to diversity and global values through exposure to online content. However, they are also increasingly vulnerable to negative influences such as cyberbullying, misinformation, and inappropriate content. One school principal noted that several cases of cyberbullying and harmful content circulation had occurred among students, highlighting the urgent need for digital character education.

4.2 The Role of Schools as Agents of Social Change

Analysis of the data identifies four major roles performed by schools as agents of social change in the digital era:

4.2.1. Facilitator of Digital Literacy

The three schools studied have integrated ICT-based learning into various subjects, although to differing extents. Schools also organize special training programs to improve students' digital skills—such as using productivity tools, searching for reliable information, and maintaining online safety. However, these initiatives remain sporadic and have not yet been systematically integrated into the official curriculum.

4.2.2. Mediator of the Digital Divide

Schools attempt to reduce technological inequality by providing computer laboratories, school Wi-Fi, and device loan programs. One school even launched a *"One Student, One Laptop"* initiative through partnerships with the local government and donor agencies. This effort reflects the school's commitment to equitable access to digital education, though implementation remains limited by resource availability.

4.2.3. Promoter of Digital Citizenship

Teachers—particularly those in counseling and civic education—incorporate digital ethics, responsible social media behavior, and critical awareness of online content into classroom instruction. One school organized a *"Digital Ethics Week"* involving workshops, discussions, and campaigns on responsible media use. This initiative demonstrates the schools' awareness that digital education should include both technical and ethical dimensions.

4.2.4. Platform for Collaboration and Social Networking

Digital technologies have enabled schools to build networks and collaborate with other schools, professionals, and global communities. Students participate in virtual exchanges, online competitions, and collaborative projects that broaden their perspectives and social networks. A sociology teacher noted:

"In the past, our students learned only from books and local experiences. Now, they can interact with students from other cities, even other countries, through virtual exchange programs. It expands their horizons."

4.3 Challenges in Optimizing the School's Role

Despite positive progress, several challenges hinder schools from fully optimizing their role as agents of social change.

4.3.1. Infrastructure and Resource Limitations

Many schools still struggle with unstable internet connections, limited computer availability, and insufficient budgets for maintaining or upgrading digital infrastructure. The aftermath of the 2018 disaster has also forced schools to prioritize physical reconstruction over technology investments.

4.3.2. Teachers' Digital Competence

Interviews revealed that many teachers—especially senior ones—still face challenges in pedagogically integrating technology. They often use digital tools merely for presentations or assignment submission rather than for creating interactive and transformative learning experiences. The lack of continuous and relevant training programs remains a major barrier to developing teachers' digital competence.

4.3.3. Curriculum Integration

Although digital literacy initiatives exist, they are often fragmented and not embedded in a comprehensive framework. The current curriculum remains heavily content-oriented, leaving little room for project-based learning, collaboration, and innovation enabled by digital tools.

4.3.4. Cultural Resistance to Change

Some teachers and parents express skepticism about digital education, fearing its negative effects on traditional values, face-to-face interaction, and students' well-being. One school committee member stated:

"We worry that children spend too much time on screens, interact less directly, and get exposed to harmful things online."

This resistance reflects an underlying tension between traditional values and modernization demands—one that schools must bridge through constructive dialogue and education.

4.4 Opportunities and Development Strategies

Amid these challenges, several opportunities were also identified to strengthen the school's role as an agent of social change.

4.4.1. Institutional and Policy Support

There is strong commitment from school leaders and local government to promote digital transformation in education. Palu's *Smart City* and digital service policies create favorable conditions for integrating technology into schooling.

4.4.2. Digital Natives' Motivation

Today's students—often referred to as digital natives—possess both the motivation and basic technological skills needed for digital learning. Observations revealed that students are enthusiastic about tech-based learning and creative in expressing ideas through digital media.

4.4.3. Multi-Stakeholder Collaboration

There is growing potential for partnerships between schools and various stakeholders, including private companies, NGOs, and universities, to support digital education initiatives. Some schools have already collaborated with technology firms for device provision and training, and with universities for curriculum development support.

Based on the findings, several strategies are recommended to optimize the role of schools as agents of social change:

- Strengthening institutional capacity through improved infrastructure, continuous teacher training, and adequate funding for digitalization.
- Developing an integrated curriculum that combines digital literacy, 21st-century competencies, and digital character education.

Building a collaborative ecosystem involving all educational stakeholders to ensure sustainable and inclusive digital transformation.

5. Conclusion

This study demonstrates that the digital era has brought complex social dynamics to secondary education in Palu City, including transformations in patterns of interaction, the emergence of a digital divide, and changes in students' values and social norms. Schools have undertaken multiple roles as agents of social change by facilitating digital literacy, mediating technological inequality, promoting digital citizenship, and creating spaces for social collaboration. However, these roles have not yet been fully optimized due to structural and cultural challenges.

The findings affirm sociological theories of education that view schools as complex social systems that both respond to and actively shape social change. In the digital context, schools play a strategic role in ensuring that digital transformation does not merely reproduce inequalities but instead becomes an instrument for educational democratization and social empowerment. Realizing this potential requires systemic commitment from all stakeholders, adequate investment in digital infrastructure and human capacity, and sustained institutional development.

This study contributes empirical insights into the social dynamics of education in the local context of post-disaster Palu City. Its practical implications highlight the need for education policies that are responsive to digitalization challenges, the development of context-specific teacher training programs, and the strengthening of multi-stakeholder collaboration. Future research is recommended to explore the long-term impacts of digital transformation on educational outcomes and social mobility, as well as to develop inclusive and sustainable models of digital education suitable for Indonesia's diverse contexts.

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