Adaptation and Social Readiness Strategies in the Face of Rapid Advances in AI Technology.

[1]**Ulfia Rhodhotul Jannah** (Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember, Indonesia)
E-mail: jannahulfia059@gmail.com

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ABSTRACT

The rapid development of AI technology has changed the patterns of social interaction, work, and daily life of the Indonesian people, but not all layers have the same readiness, resulting in existential anxiety as well as opportunities for social progress. This ethnographic research aims to describe and analyze in depth how adaptation strategies are built, and social readiness is formed in a society that continues to change due to AI, thus providing a practical picture to face and use technology responsibly. With a purposively selected sample of 70 respondents from various layers (freelancers, housewives, online drivers, teachers, the elderly, etc.), data were collected through in-depth interviews, participatory observations in the digital-offline community, and documentation of daily activities. The results show that AI adaptation is collective, with peer-to-peer learning in communities (WA groups, forums, and social gatherings) as the most effective strategy; the majority of respondents have integrated AI as an "assistant" or "friend" despite still being accompanied by work anxiety, while the main obstacles are literacy inequalities, infrastructure, and ethics-privacy issues. In conclusion, true social readiness depends on the power of the community as a safe space for learning together. The implication is that AI literacy policies must be based on local communities, inclusive, and integrated with cultural values so that AI transformation strengthens solidarity and humanity in Indonesia.

I. INTRODUCTION

The strategy of adaptation and social readiness in the face of the rapid advancement of AI technology arises from the fact that the development of artificial intelligence (AI) technology has experienced a very significant acceleration in various aspects of social, economic, and cultural life. These advances brought about rapid changes in the way individuals and communities interacted, worked, and carried out daily activities. However, not many people clearly understand how the right adaptation strategy and social readiness are built so that they can be sustainable in the face of these technological changes.

Based on the findings, it is shown that not all individuals or groups of people have adequate ability or readiness to adapt to AI. There is a tendency for some people to experience excessive dependence or even anxiety on this technology, which has an impact on social interaction patterns and behaviors.

On the other hand, there is also a view that AI advances can actually accelerate social progress if readiness and adaptation strategies are developed appropriately. This raises the question of how individuals and societies can make the most of these opportunities without losing social and cultural power.

Some information that is still unclear relates to how effective adaptation strategies can be formulated and implemented at different levels of society, as well as how social readiness is formed in this highly dynamic environment. This study also tries to explore the supporting and inhibiting factors in the implementation of adaptation and readiness, which until now have not been well identified in the context of the rapid development of AI technology.

The social transformation due to the dramatic advancement of AI is the main context of this study. This research tries to build a broad understanding of the relationship between technology and social change that occurs, especially how humans are able to adapt and maintain the quality of their social life. This study has a novelty in combining social approaches and technological adaptation comprehensively, which has not been discussed simultaneously in previous research.

The direction of this research is how adaptation strategies and social readiness can function as a tool to manage rapid social change, as well as how society can utilize AI technology to bring optimal benefits without excessive negative impacts. This focus on real implementation and social readiness is the center of attention to answer various phenomena that arise due to advances in AI technology. The purpose of this research is to describe and analyze in depth how adaptation strategies are built and how social readiness is formed in a society that continues to change due to the development of AI technology, so as to be able to provide a practical picture of how to deal with and use technology responsibly.

The main difference or knowledge gap that this study seeks to fill can be seen when comparing with previous research such as "The Effect of the Use of Artificial Intelligence on the Intensity of Student Social Interaction" by Patimah (2024) which focuses more on student groups and the intensity of social interaction, while this study examines adaptation strategies and social readiness in the context of wider society and in facing technological advances in general.

Thus, this research makes a valuable contribution to the development of social science, especially in understanding the relationship between technology and society, and provides a useful information base for policymakers, social practitioners, and the wider community to be able to adapt positively in the era of the AI technology revolution.

II. RESEARCH METHODS

The research method used in this study is a qualitative method with an ethnographic design. This approach aims to describe and interpret the patterns of values, behaviors, beliefs, and language that develop within the social culture of a particular group, in this case, related to adaptation strategies

and social readiness to face the rapid advancement of AI technology. The research population is members of the social community who are exposed to and interact with AI technology, and a sample of 70 respondents was purposively selected to obtain data-rich and representative informants of the phenomenon being studied. The research subjects include individuals undergoing a process of social adaptation to AI technology, such as active users of AI, community leaders, and directly affected groups. The research instrument used in-depth interviews, participatory observations, and documentation of daily activities as the main data collection methods. The development of the instrument was carried out through the preparation of open interview guidelines and observation guidelines that were adjusted based on the literature and preliminary studies so that they were relevant and valid for exploring experiences and social adaptation strategies. Data analysis is carried out with an inductive approach through open coding, categorization, and thematic analysis to identify social patterns and interpret the meaning of adaptation in the context of AI technology advancements. The research procedure begins with planning and submission of research permits, followed by initial field observations to understand the social context. Then, intensive interviews were conducted with 70 selected respondents, followed by direct observation of technology adaptation activities, as well as the collection of related documentation. The data is analyzed continuously during and after data collection to gain a comprehensive understanding. The results of the research were compiled in a report that describes the process of social adaptation and readiness for AI technology as an integral part of the social and cultural dynamics of the community. This ethnographic method allows researchers to capture in detail the cultural and social context of adaptation strategies in the face of rapid technological change.

III. RESULTS AND DISCUSSION

The results of the study show that social adaptation and people's readiness for AI technology are a complex and dynamic process that involves psychological, social, cultural, and technical aspects. Based on the results of the research that has been obtained and supported by relevant literature reviews, this discussion will describe and analyze how adaptation strategies are built, and social readiness is formed in a society that faces rapid changes due to the development of AI technology, thus providing a practical overview in dealing with and utilizing technology responsibly.

An analysis of the effectiveness of strategies used to improve social adaptation to AI shows that it is not only a matter of mastering technical skills, but also involves mental readiness and a positive attitude towards technological change. This adaptation strategy develops through social experiences and interactions in the community, where individuals learn to recognize technological changes and their impacts, build capacity to use AI effectively, and form harmonious patterns of interaction between humans and technology. This process is in line with the theory of Innovation

Diffusion (Rogers, 2003), which asserts that technology adoption is influenced by social factors and interpersonal communication that support the effective dissemination of innovation.

This study found that the development of AI technology has a significant impact on people's social interaction patterns, work, and daily activities. Not all individuals or groups have the same readiness or ability to adopt these changes; Some feel dependency and anxiety, while others are able to make positive use of technology through effective adaptation strategies. This adaptation strategy is built through complex social processes and vibrant cultural contexts, where individuals and groups learn to recognize change, develop new skills, and reframe their social interaction patterns with AI technology.

The implementation of social adaptation is supported by social readiness in the form of mental readiness, technical skills, and institutional support. Individuals who have high motivation, sufficient knowledge, and support from social networks and institutions show a better level of readiness to face AI advancements. Training, open communication, and collaboration between various parties are key strategies that help strengthen this readiness. Communities form a collective learning mechanism that allows members to share experiences with each other, thus accelerating the community's overall adaptation process.

The social transformation that occurs not only changes economic activities or social relations, but also affects the values and culture of society, which tends to adapt to new technologies. An organizational and community culture that is open to learning and innovation is an important factor in supporting social readiness. However, the study also noted barriers such as limited access to technology, lack of technical skills among certain circles, and concerns about the social impact of new technologies, hence the need for an inclusive approach and adequate policy support.

On the other hand, this study confirms that social readiness is not just the technical readiness of individuals, but also collective readiness that involves cultural, social, and psychological aspects. By building responsive adaptation strategies and strong socio-cultural support, societies can manage changes in AI technology sustainably and responsibly. The research also emphasizes the need for policies that facilitate equitable access to technology, increase the capacity of human resources, and develop social ecosystems that support inclusive digital transformation.

Overall, the results of this study provide an overview that adaptation strategies and social readiness to advances in AI technology are dynamic processes that involve social learning, individual and collective capacity building, and the formation of an inclusive culture that supports change. The practical implication is that efforts to increase digital literacy, provide continuous training, and strengthen collaborative networks between the community, government, and the private sector are indispensable to face the era of AI progress optimally and civilizedly.

The findings also reinforce the view of the diffusion theory of innovation and social capital, which states that successful technological

adaptation depends on psychosocial readiness and strong social interaction. This research adds knowledge by highlighting the importance of cultural context and social policies in building social readiness to face AI technology quickly and massively. With an ethnographic approach, this research is able to capture the details of complex social experiences and adaptation patterns in different walks of life, making an important contribution to the development of community-based strategies in the face of future technological revolutions. Social readiness formed in this context includes collective readiness that involves cultural, social, and psychological aspects. Readiness is not only individual ability, but also the readiness of communities and institutions to provide support, both in the form of training, policies, and supporting infrastructure.

This research is also supported by Human Capital Theory (Becker, 1993), which emphasizes the importance of investment in human resource development as the foundation for successful technological adaptation. Institutional support, ongoing training, and collaboration between stakeholders are important factors that increase social readiness and strengthen people's adaptation capacity to AI. On the other hand, the formation of an organizational and community culture that is open to learning and innovation plays a critical role in fostering social readiness. Organizational Learning Theory (Argyris & Schön, 1978) underlines the importance of a culture of adaptive learning and collaboration as the main capital in the process of adaptation and organizational transformation. Sichoongwe's (2023) research, which emphasizes the determinants of eco-innovation adoption, also supports this finding that organizations that are able to maintain a progressive learning culture will be faster to adopt new technologies sustainably.

The study also identified barriers that are still being found, such as limited access to technology, inequality of technical capacity, and concerns about the social impact of AI, demonstrating the need for an inclusive approach that accommodates all walks of life. Responsive adaptation strategies should include strengthening policies that ensure equitable access to technology as well as investment in training and human resources to accelerate inclusive social readiness.

In the context of the responsible use of AI technology, the results of the study underscore the importance of building strategies that are not only adapting to technological developments but also oriented towards managing social and cultural impacts ethically. A collaborative approach, open communication, and continuous learning are the keys to successful social adaptation. A community that supports each other in the collective learning process can accelerate adaptation while reducing anxiety and over-reliance on technology.

Thus, the formation of adaptation strategies and social preparedness to face the rapid advancement of AI technology is a process of social learning and capacity building that involves the interaction between individual, social, and institutional factors. Innovation Diffusion Theory, Human Capital Theory, and Organizational Learning Theory are important conceptual

foundations that support this analysis. The practical implications are the need for sustainable investment in education and training, strengthening a culture of learning and collaboration, and developing inclusive policies that support technology access and community empowerment. This will ensure that people are not only ready to face the advancement of AI but also able to use this technology responsibly for social progress and shared sustainability.

TABLE 1. RESPONDENT CHARACTERISTICS

Code Responders	Position/Role	Number of Respondents	Sampling Technique
R01–R70	Every day, active users of AI (freelancers, office professionals, housewives, online drivers, teachers, college students, informal workers, seniors, digital community leaders, etc.)	70	Purposive Sampling

The respondent characteristics table shows that this study involved 70 informants who were selected by purposive sampling with codes R01 to R70. The selection of respondents was not carried out randomly, but deliberately sought individuals who really had intense experience with AI technology in daily life, so that the data obtained was rich and in-depth, according to ethnographic principles. Respondents come from very diverse backgrounds: there are freelancers and content creators who use AI for creative work, office professionals who use AI for task automation, housewives who use AI to manage household and learn recipes, online motorcycle taxi drivers who rely on AI route recommendations, teachers and lecturers who integrate AI in learning, students, informal workers, and the elderly who are just starting to get to know AI through their children or grandchildren, as well as several leaders of the digital community. This diversity is intentionally designed to capture the variety of adaptive experiences across different social strata, ages, genders, education levels, and geographic regions (including urban and suburban). Thus, the research findings not only reflect the digital elite group, but also voices that are often marginalized in AI discourse in Indonesia, so that the picture of social readiness becomes more complete and representative.

TABLE 2. DATA COLLECTION

Data Collection Methods	Description	Information
In-Depth Interviews	2–4 session interviews with each key informant (70 informants total)	Exploring personal experiences, anxiety, and adaptation strategies to AI

Participatory Observation	Participate in and engage in digital community activities (WA groups, freelancer forums, online classes, AI sharing sessions)	Gain practical context on how AI is integrated into everyday life.
Documentation	Collection of chat screenshots, social media posts, respondent-generated AI tutorial videos, and a daily journal of AI usage	Complete and verify interview and observation data.

Table Data collection in this ethnographic research is carried out through three main methods that complement each other (triangulation) so that the validity of the findings is stronger. First, in-depth interviews are conducted in 2–4 sessions per key informant (70 informants in total) with semi-structured interview guidelines that continue to be adjusted as new themes emerge. These interviews aim to dig deep into very personal narratives: how respondents first encountered AI, the feelings of anxiety or joy that emerged, the personal strategies they developed, and the changes in the meaning of life and work they felt. Second, participatory observation is carried out in a way that researchers are really involved in the respondents' digital communities—entering family WhatsApp groups, freelancer forums, online classes, and AI sharing sessions in cafes or mosques—so that researchers can see firsthand how AI is used, talked about, and negotiated in real interactions. Third, documentation in the form of taking screenshots of conversations, social media posts, AI tutorial videos made by respondents, daily records of AI use, and photos of daily activities involving AI, is used to verify and enrich verbal data. The combination of these three methods allowed researchers to capture not only what was said, but also what was done and what was visually recorded in the respondents' daily lives.

TABLE 3. THEMES AND SUBTHEMES OF THEMATIC ANALYSIS

Main Themes	Subtheme
1. Individual Adaptation Process to AI	- Early acceptance and enthusiasm - Existential anxiety & fear of losing a job - Human–machine hybridization (AI as a "friend" or "assistant")
2. Collective & Community-Based Adaptation Strategy	- Peer-to-peer learning (teaching each other prompts, sharing sessions) - The emergence of "AI together" practices in WhatsApp groups/communities - The role of the community as an emotional buffer
3. Implementation Challenges & Barriers	- Digital literacy gap between generations and social classes - Ethical concerns, privacy, and AI misinformation - Limited infrastructure in suburban areas

4. Contribution & Positive Impact of Adaptation	- Increased efficiency & daily creativity - Strengthening community solidarity through shared learning - Transformation of work identity and more inclusive social relationships

Table 3: The thematic analysis in this study yielded four main themes that emerged repeatedly and prominently from hundreds of pages of interview transcripts, field notes, and documents. The first theme, "The Process of Individual Adaptation to AI", reveals everyone's emotional and cognitive journey: from the initial enthusiasm when they first tried ChatGPT or Midjourney, to the existential anxiety of realizing a job could be replaced, then the emergence of a hybridization pattern in which AI is treated as a "friend" or "personal assistant". The second theme, "Collective & Community-Based Adaptation Strategies", is the richest finding because it shows that Indonesians tend not to learn AI alone, but rather through teaching each other in WhatsApp groups, weekly sharing sessions, or even social gatherings of mothers who are now discussing AI prompts. The third theme, "Implementation Challenges & Barriers", highlights the glaring inequalities: intergenerational literacy gaps, privacy and ethical concerns, and infrastructure limitations outside of major cities. The fourth theme, "The Contribution & Positive Impact of Adaptation", shows the bright side: collectively adapted AI turns out to strengthen solidarity, increase creativity, and even transform social relationships into more supportive ones. These four themes are interrelated and form a complete picture that AI adaptation in Indonesia is not a purely technical process, but a highly contextual socio-cultural process.

TABLE 4. KEY FINDINGS

Aspects	**Key Findings**
Individual Adaptation Process	The majority of respondents have reached the stage of integrating AI into their daily routine with a positive attitude, despite existential anxiety.
The Most Effective Adaptation Strategies	Community-based collective learning (peer-to-peer) is the strategy that appears most often and is felt to be the most powerful.
The Role of Community	Communities (WA groups, online forums, work environments) serve as "safe spaces" to experiment, share failures, and reinforce each other.
Key Challenges	Inequality in digital literacy, access to infrastructure, and ethical and privacy concerns are the most commonly felt obstacles.
Impact on Social Solidarity	Successful adaptations actually strengthen solidarity and a sense of shared belonging, not erode it.
Implications for Society & Policy	Inclusive policies that support community-based AI literacy, ongoing training, and equitable infrastructure are needed for AI transformation to be civilized.

Table 4 of the main findings summarizes the essence of the entire lengthy ethnographic process. The most notable finding was that the majority of respondents had successfully integrated AI into everyday life with a relatively positive attitude, albeit almost always accompanied by humane existential anxiety. The most effective strategy turns out not to be formal training from governments or companies, but rather community-based collective learning—both online and offline—that allows people to share failures, success prompts, and emotional support. Communities (family groups, co-workers, or professional forums) serve as a "safe space" to experiment without fear of embarrassment. The biggest challenges remain literacy inequities, access to infrastructure, and ethical and privacy concerns that often leave older groups, informal workers, and marginalized communities feeling left behind. But encouragingly, when adaptation is successful, social solidarity grows stronger—not weakened, as is often feared. The most important implication of these findings is the need for policies that not only focus on infrastructure and technical training but also support and strengthen local communities as the main engines of inclusive and civilized AI learning. Only then will the AI revolution in Indonesia truly bring progress to all levels of society, not just a handful of digital elites.

IV. CONCLUSION

This ethnographic research concludes that the adaptation strategy and social readiness of the Indonesian people in the face of the rapid advancement of AI technology is a very dynamic, complex, and essentially collective rather than individual process. The majority of informants have successfully integrated AI into their daily routines with a positive attitude—thinking of AI as an "assistant," "confidant," or "co-worker"—but this process is almost always accompanied by existential anxiety, especially the fear of losing their jobs and the meaning of life. The strongest findings show that the most effective and sustainable adaptation strategy is not formal training from top to bottom, but community-based collective learning (peer-to-peer) that occurs spontaneously in WhatsApp groups, online forums, work environments, and social gatherings and recitations. Communities serve as "safe spaces" to experiment, share failures, teach each other prompts, and provide emotional support, thus accelerating adaptation while reducing anxiety and over-reliance on technology.

Theoretically, the results of this study strengthen and enrich the theory of Innovation Diffusion (Rogers, 2003), Human Capital Theory (Becker, 1993), and Organizational Learning Theory (Argyris & Schön, 1978) by showing that in the context of Indonesian society, successful AI adoption depends heavily on interpersonal communication, strong social capital, and a collective learning culture that is already inherent in daily life. The main obstacles remain the inequality of digital literacy between generations and regions, limited infrastructure, and still massive ethical and privacy concerns, especially among the elderly, informal workers, and marginalized communities.

The practical implications of this research are clear: governments, educational institutions, and the private sector should not focus solely on the mass provision of AI technical infrastructure and courses, but should instead design policies that actively support and strengthen local communities as the main engine of AI literacy and adaptation. Training programs must be designed to be community-driven, utilize local figures and platforms that are already commonly used by the community (WhatsApp, TikTok, studies, youth organizations), and integrate the dimensions of ethics, humanity, and local cultural values so that AI is not only efficient but also civilized. This investment in community empowerment will result in an inclusive digital transformation, reduce the digital divide, and ensure that the AI revolution in Indonesia not only brings technological advancements but also strengthens social solidarity, empathy, and human sustainability in the midst of inevitable change. Thus, Indonesian people are not just "safe" from AI disruption, but are able to use it responsibly to create a more just and dignified future for all layers.

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