



Research Paper

The Responsibility of Students at Thai Nguyen University of Technology in Preserving and Promoting National Cultural Identity According to Ho Chi Minh Thought in the Era of the Fourth Industrial Revolution

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Abstract

Ho Chi Minh's views on culture, especially his emphasis on preserving and promoting national cultural identity, are deeply significant for the Vietnamese revolution throughout history. His ideology offers valuable lessons for safeguarding and advancing Vietnam's cultural identity today. Students at Thai Nguyen University of Technology, as future technical intellectuals, play a key role in integrating scientific and technological progress with the protection of national cultural values. This article examines Ho Chi Minh's ideological basis for the role of young intellectuals, surveys students to assess their awareness and actions, evaluates the influence of the Fourth Industrial Revolution, and presents five practical solutions to help students creatively apply his teachings. These solutions aim to foster the development of individuals who are technically skilled and deeply connected to Vietnam's cultural heritage.

Keywords: *Ho Chi Minh Thought, national cultural identity, students of Thai Nguyen University of Technology, the Fourth Industrial Revolution, responsibility of technical students, cultural education.*

I. Introduction

The Vietnamese national cultural identity represents the eternal spirit and invaluable essence of the nation, providing the resilience and strength that have empowered the Vietnamese people to endure and thrive throughout millennia of nation-building and defense. President Ho Chi Minh, the esteemed leader of Vietnam, placed immense emphasis on safeguarding and advancing this cultural heritage. He regarded it as an integral and fundamental part of the country's revolutionary mission. In his vision, culture was not merely a reflection of society but a guiding light, a vital force that would propel the nation toward independence, self-reliance, and autonomy. In the era of the Fourth Industrial Revolution, marked by rapid advancements in digital technology, artificial intelligence, big data, and all-encompassing digital transformation, students at technical universities—particularly those at Thai Nguyen University of Technology (TNUT)—stand at a crossroads of unprecedented opportunities and formidable challenges. As a pivotal and leading force in scientific innovation and national digital transformation, these students are tasked with more than mastering technological expertise. They must also embody a deep commitment to preserving and elevating the national cultural identity. Reinforcing such a sense of responsibility plays a crucial role in fostering a progressive Vietnamese culture rich with national character, while simultaneously upholding the cultural principles outlined by the Communist Party of Vietnam in this transformative era.

II. Content

2.1 Theoretical foundations of the responsibility of technical students in preserving and promoting national cultural identity following Ho Chi Minh Thought

Ho Chi Minh articulated a profound and forward-thinking vision of culture, emphasizing its dual role as both a spiritual and material driving force for revolutionary progress. He stressed that culture should serve as a beacon, guiding the nation's path, and outlined a framework for building a new cultural identity around five key principles: fostering independence and self-reliance; nurturing moral values centered on selflessness for the collective good; constructing a society dedicated to public welfare; establishing democratic governance; and

cultivating a robust national economy. In tandem, he highlighted the importance of embracing the unique cultural characteristics of the Vietnamese people in artistic expression, advocating for the selective adoption of global cultural achievements while rejecting the remnants of colonialism and the subservient influences of imperialist ideologies. For the younger generation and intellectuals, regarded by Ho Chi Minh as the "nation's valuable asset," he underscored the need for them to study politics, technology, and culture; embody revolutionary ideals; practice ethical leadership; and take responsibility for safeguarding national cultural identity. In the context of the Fourth Industrial Revolution, his vision gains renewed relevance. Young technologists and scholars are envisioned as "soldiers on the cultural frontier," tasked with leveraging digital technologies to preserve, share, and creatively promote the nation's cultural heritage with innovation and efficiency. This perspective underscores the enduring synergy between cultural legacy and technological advancement in shaping a dynamic future.

2.2. Current situation of the responsibility of students at TNUT in preserving and promoting national cultural identity in the context of 4.0.

a. Positive Developments

In recent years, the students at TNUT have shown notable strides in fostering both cultural awareness and proactive engagement. A growing number of students actively participate in extracurricular activities, cultural and artistic groups, volunteer initiatives, and movements spearheaded by the Youth Union and the Student Association to introduce and promote Vietnam's rich national culture. Many have embraced modern digital technologies—such as 3D design, app development, 360-degree video production, and virtual reality—to digitize cultural heritage, promote traditional festivals, and create tech-driven products infused with Vietnamese cultural identity. The movement titled “Technical Students with National Culture” has gained considerable momentum, drawing in hundreds of participants and strengthening their sense of national pride while enhancing their cultural responsibility in a technical academic setting.

b. Challenges and Limitations

However, these achievements coexist with several challenges that require attention. A notable segment of technical students continues to undervalue the importance of learning and preserving traditional cultural values, focusing instead on acquiring technological and digital skills. The pervasive influence of digital culture, social media, and international entertainment platforms has made foreign cultural content easily accessible. This has led to issues such as cultural alienation, hybridized language use, neglect of traditional customs and festivals, and, in some cases, attraction to lower-quality cultural trends. The gap between high technical proficiency and cultural awareness remains a concern, particularly as students face the mounting pressures of rigorous academic programs, research requirements, and rapid digital transformation.

c. Characteristics of Students at TNUT

Situated within the northern midland and mountainous region under the aegis of Thai Nguyen University, TNUT benefits from its proximity to diverse ethnic communities, including Tay, Nung, Dao, and H'Mong groups. Students at the university are uniquely positioned to explore and experience varied cultural heritages. However, due to the nature of its technical and technological curriculums—characterized by practice-heavy coursework, laboratory-centered activities, and online learning—their engagement with traditional cultural activities is often constrained. The advancements brought by the Fourth Industrial Revolution have equipped students with cutting-edge tools such as artificial intelligence, virtual reality, and big data analytics. While these technologies unveil unbounded opportunities, they also present risks if students lack proper guidance in fostering cultural responsibility. Being located in Thai Nguyen Province—a key industrial hub in Vietnam's north—students are further shaped by the region's rapid industrialization and modernization. Those hailing from rural or ethnic minority backgrounds steeped in traditional culture face particular challenges as they strive to balance a tech-centric education with preserving their unique cultural heritage. The university's emphasis on STEM-focused curriculums equips students with essential skills demanded by contemporary job markets but can inadvertently detract from cultivating cultural awareness and humanistic values. At the same time, the university's multicultural environment—which attracts students from varied provinces and ethnic groups—offers a fertile ground for cultural exchange. However, this diversity necessitates deliberate efforts to safeguard traditional practices against dilution or loss under the overwhelming influence of globalized digital culture. To address these multifaceted challenges, the university must implement comprehensive strategies rooted in Ho Chi Minh Thought on culture. By embedding this ideology into its educational framework, the institution can aim not just to produce technologically adept engineers but also culturally grounded individuals who carry forward Vietnam's rich heritage with pride and responsibility.

2.3. The impact of the Fourth Industrial Revolution on the responsibility of technical students in preserving and promoting national cultural identity

The Fourth Industrial Revolution is dramatically transforming the roles and responsibilities of technical students in safeguarding and fostering national cultural identity. On the positive side, this revolution provides groundbreaking opportunities for technical students to leverage digital technologies in cultural preservation and promotion. They can engage in the digitization of cultural heritage, design software applications that celebrate national identity, or develop cutting-edge technological products infused with Vietnamese cultural elements. Tools such as 3D design, virtual reality (VR), artificial intelligence (AI), and big data analytics empower students to document and conserve intangible cultural heritage, virtually recreate traditional festivals, and share Vietnamese culture with a global audience. Through these efforts, technical students serve as vital connectors between tradition and modernity, helping to build an advanced "Vietnamese digital culture" rooted in national identity. Additionally, the Fourth Industrial Revolution fosters creativity and innovation, enabling technical students to integrate scientific and technological advancements into the revival of traditional culture. For example, they can create interactive educational programs about Vietnamese history and culture through programming or apply Internet of Things (IoT) technology to safeguard tangible cultural heritage sites. These initiatives not only boost the effectiveness of cultural promotion but also highlight the crucial role of young, tech-savvy individuals in driving cultural development in this era of rapid transformation. However, the challenges posed by this revolution are equally significant. The rapid proliferation of digital technologies and social media carries risks such as cultural distortion, diminished interpersonal interaction, and the threat of cultural homogenization under foreign influence. Without adequate awareness and proper guidance, some technical students risk becoming overly reliant on technology to the point of distancing themselves from traditional cultural values. This detachment may manifest in the adoption of hybridized language, loss of respect for national traditions, or a preference for lower-brow content propagated by global entertainment platforms. The intense focus on mastering advanced technologies may also draw attention away from important foundations such as ethics, national history, and cultural heritage. Furthermore, the vast and often unregulated digital information landscape makes it easy for students to encounter misleading or harmful content, potentially eroding their connection to national cultural identity. Without a strong sense of responsibility, today's generation of technical students could inadvertently morph into "rootless engineers"—technologically adept but devoid of a sense of cultural heritage or civic responsibility. Such an outcome could compromise the ethical standards and holistic development of individuals while posing risks to the sustainable growth of Vietnam's cultural legacy amidst extensive global integration. To fully harness the benefits of this transformation while addressing its potential drawbacks, a set of comprehensive measures must be implemented. Education reform, awareness programs, and hands-on initiatives are essential to equip technical students with the tools and mindset needed to uphold and promote cultural identity in alignment with Ho Chi Minh's ideals. Only by doing so can they emerge as a generation that significantly contributes to shaping an advanced Vietnamese culture deeply enriched by its unique national character.

2.4. Some fundamental solutions to enhance the responsibility of students at TNUT in preserving and promoting national cultural identity according to Ho Chi Minh Thought

Solution 1: Bolster the comprehensive education of Ho Chi Minh Thought and national cultural identity by seamlessly integrating these themes into both general education and specialized training programs. Incorporate relevant content into coursework and enhance learning through regular seminars and academic workshops.

Solution 2: Actively encourage practical activities and student-led scientific projects that blend technology with cultural preservation. Examples include digitizing cultural heritage using 3D and virtual reality technologies, creating mobile applications to promote traditional festivals, and developing technological products that embody Vietnamese cultural identity.

Solution 3: Strengthen the leadership role of the university's Youth Union and Student Association in spearheading dynamic, innovative initiatives under the theme "Technical Students with National Cultural Identity." These efforts should connect with volunteer activities and scientific research to foster creativity and purpose.

Solution 4: Foster a well-rounded academic and social environment by integrating digital skill development with the promotion of cultural values such as "Truth – Goodness – Beauty." This can be achieved through student clubs, forums, and regular extracurricular events that focus on holistic personal growth.

Solution 5: Enhance collaboration between the university, families, and society to provide comprehensive support for students. This partnership can ensure a balance between professional technical development and cultural preservation. Additionally, establish timely recognition and reward systems to celebrate outstanding student achievements individually and collectively.

III. Conclusion

Ho Chi Minh Thought on culture and national cultural identity continues to serve as a foundational theory of significant scientific and revolutionary relevance for students at TNUT. It provides essential guidance for embracing their responsibilities in the era of the Fourth Industrial Revolution. Integrating advanced technical expertise with a conscious effort to preserve national cultural identity equips these students not only to excel as skilled engineers and innovative scientists but also to embody the values of proud, multifaceted Vietnamese citizens. Every student should recognize their historical duty, commit to diligent study, and strive for a balance between ethical development and professional competence. By doing so, they will contribute meaningfully to inheriting and advancing national cultural identity in alignment with Ho Chi Minh Thought, ensuring their vital role in building and steadfastly safeguarding the Socialist Republic of Vietnam.

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