THE INTEGRATION OF BUDDHIST INNOVATION WITH DIGITAL TECHNOLOGY REFLECTS THE IDENTITY OF THE BUDDHIST UNIVERSITY

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Abstracts

This academic article discusses how Buddhist universities lay the foundation for producing digital workforce in Thailand. Buddhist universities are adapting their teaching policies from traditional theoretical approaches to creating a learning ecosystem that keeps pace with technological changes. They utilize artificial intelligence (AI) and integrate Buddhist principles to create innovations that develop society—spiritual and social innovations—responsible for the needs of the monastic community, the labor market, and business innovation. This innovation focuses on practical application, as developed by the Buddha, emphasizing the development of the mind alongside daily life. Mindfulness and meditation are tools for cultivating a calm and wise mind. The Buddha's Buddhist innovation is not merely about teaching Dharma, but about creating ways of thinking and practices that systematically solve human suffering.

Therefore, integrating Buddhist innovation with digital technology reflects the identity of Buddhist universities, a balanced blend of "Buddhist principles," "technology," and "social processes" without abandoning the essence of Buddhism. It enhances the dissemination of Dharma, making it more contemporary, accessible, and responsive to the needs of a globalized society. The innovations of the Thai monastic community and Buddhist universities are complementary and supportive of each other. For example, addressing plastic waste by stimulating moral values in society, raising awareness of plastic use and disposal, emphasizing reduction, reuse, recycling, and rejection of unnecessary items. Choosing natural materials, separating waste properly, and creating new innovations at Wat Chak Daeng involves transforming recycled plastic bottles into fibers, blending them with natural fibers to weave fabric. This fabric is then dyed according to monastic rules and sewn into lightweight, quick-drying, odor-free robes that are environmentally friendly.

Keyword: Buddhist Innovation, Integration, Identity of the Buddhist University

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The Ministry of Higher Education, Science, Research and Innovation (MHESI) announced guidelines for managing artificial intelligence (AI) education by 2025, marking a significant step in laying the foundation for producing digital workforce in Thailand. This policy focuses on encouraging higher education institutions to shift from traditional theoretical teaching to creating a learning ecosystem that keeps pace with technological changes, based on three main pillars.

1. Integrating AI into all curricula (AI Integration for All) demonstrates AI literacy, meaning the fundamental knowledge, understanding, and skills learners should possess regarding Artificial Intelligence (AI) to use AI technology responsibly, critically, and in a socially responsible manner. In the context of higher education, AI literacy is considered a key competency for 21st-century learners.

The requirement for General Education (GE) courses to include AI Literacy content aims to build a foundational understanding among students of all disciplines, not limited to science or technology, enabling them to live, work, and learn appropriately with AI in the digital age.

AI Literacy in General Education (GE) courses is a crucial foundation for developing learners in the digital age. It focuses on understanding fundamental AI concepts, AI ethics, and the responsible use of AI tools, enabling learners across all disciplines to empower themselves to learn, work, and live consciously and intelligently.

AI in Disciplines encourages non-IT disciplines, such as law, medicine, and arts, to apply AI within their professional contexts. It promotes the use of artificial intelligence in work, research, and teaching, emphasizing the adaptation of technology to suit the specific context of each profession.

This concept aims to enable students and professionals across various fields to leverage AI to improve efficiency, reduce redundancy, or create new value without necessarily being technical experts, but rather understanding the principles of operation and the scope of AI in a knowledgeable manner.

2. Enhancing Technical Capabilities (Advanced AI Talent): Developing Artificial Intelligence (AI) or Data Scientists requires both theoretical knowledge and practical skills. Learning from real-world industry problems is a key strategy in creating a workforce capable of meeting the demands of the labor market and business innovation. (Ministry of Higher Education, Science, Research and Innovation and Ministry of Digital Economy and Society, 2022)

Focusing on producing AI and Data Scientists through real-world industry challenges is a highly effective approach. Students not only understand theory and techniques but can also apply them to solve real-world problems in business and social contexts. This practical learning creates professionals who are job-ready, possess comprehensive skills, and can

sustainably innovate in the digital age. It promotes experiential learning and research projects that utilize AI to solve national problems.

3. Ethics and Governance (AI Ethics & Governance): The use of artificial intelligence (AI) technology in educational institutions and organizations requires clear and standardized guidelines to ensure responsible, safe, and legally and ethically compliant use. Transparency in AI usage is crucial; institutions should disclose how their AI systems work, including their objectives, processing methods, and decision-making criteria. Stakeholders, such as students, staff, and users, must be able to understand how the AI operates and the data or analysis used to produce the results. Transparency builds trust and reduces concerns about AI use in academic and professional life.

Considering data privacy, personal data and insights must be stored, used, and processed securely in accordance with privacy laws and standards (e.g., PDPA, GDPR). Data encryption, access control, and data deletion when unnecessary are important practices. Users must be informed about the collection and use of their data, and have the right to consent to or refuse the use of their data.

Balancing Innovation and Responsibility: The adoption of AI must strike a balance between increasing efficiency and innovation, and protecting the rights and safety of users. Institutions should have clear guidelines or policies to ensure that AI use aligns with ethical and professional standards, prevents plagiarism, and promotes the creative and responsible use of generative AI. (Ministry of Higher Education, Science, Research and Innovation, 2025)

1. The creation of Buddhist innovations by the Buddha.

The Buddha's innovations refer to the approaches, methods, and applications of the Dharma that he devised and taught to solve the suffering of humanity in his time. These innovations, which were applied effectively and sustainably, are considered "spiritual and social innovations." They not only created new ideas but also directly addressed social and human problems.

In creating innovative teaching methods for disseminating the Buddha's teachings, he adapted teaching styles to suit the intellectual level and context of the listeners. He used analogies and metaphors to make the Dharma easier to understand, such as comparing life to a stream, dew, or flame. He also employed tailored teaching to address the individual needs of each listener, such as instructing monastic discipline to monks or the Four Noble Truths to the general public. This approach is innovative because it allows the Dharma to be adapted to the differences among learners, making it accessible and producing immediate results.

Creating innovations in practice. The Buddha developed a method of practice that emphasizes the development of the mind alongside daily life. Mindfulness and meditation are tools for cultivating a calm and wise mind. Following the Eightfold Path is a systematic approach to resolving suffering step-by-step. This involves applying spiritual innovations to meet the basic human needs: reducing suffering and creating happiness.

Creating social innovations. The Buddha established the monastic community system (Sangha) and principles of social governance, including monastic discipline (Vinaya), to enable the monastic community to manage itself in an orderly manner. He emphasized virtues and ethics such as loving-kindness, compassion, and non-violence to create a peaceful and sustainable society. He promoted the resolution of social disparities using the Four Noble Truths and the Eightfold Path as guidelines. Building such a society is a social innovation that reduces conflict and fosters cooperation.

It can be said that the Buddha's Buddhist innovations were not merely about teaching Dharma, but about creating ways of thinking and practicing methods that systematically solved human suffering.

Spiritually: the practice of meditation and the cultivation of wisdom.

In terms of teaching: adapting Dharma principles to suit the listeners.

Socially: building monastic communities and establishing good governance.

Therefore, the Buddha's Buddhist innovations can be viewed as innovations for the holistic development of humanity, both spiritually and socially, that are sustainable and adaptable to the context of people in each era.

2. Creating Buddhist innovations.

Buddhist innovation is the process of applying Buddhist teachings, such as the Threefold Training, the Four Noble Truths, the Eightfold Path, or Buddhist ethics, in conjunction with creativity, technology, and contemporary social contexts. The goal is to develop new concepts, methods, tools, or processes that generate sustainable intellectual, ethical, and social value. (Phra Dhammavachirapandit [Somjin Samma-panyo] et al., 2023)

The process of creating Buddhist innovation mostly begins with analyzing societal problems or needs. Then, Buddhist principles are used as a conceptual framework for designing the innovation, emphasizing the development of the mind alongside material development. Examples include using digital technology to disseminate Buddhist teachings, creating online Buddhist learning materials, or developing applications for mindfulness practice.

Buddhist innovation is therefore not merely about creating new technologies, but about creating innovations based on morality, compassion, wisdom, and social responsibility, which aligns with the goal of balanced human development in physical, mental, social, and intellectual aspects. (Phra Dhammapitaka (P.O. Payutto), 2000)

3. Buddhist innovations of the Thai Sangha. The dissemination of Buddhism integrates its principles with technology and social processes. This involves developing concepts, methods, and models for spreading Buddhism that apply Buddhist teachings alongside modern technology and social processes. This is to align with the context of contemporary society and the changes of the digital age, with the primary goal of preserving, expanding, and making Buddhist principles widely and sustainably accessible to the public.

The Thai monastic community has adapted its methods of disseminating Buddhist teachings from traditional approaches, such as sermons in temples or face-to-face teaching, to the use of digital technology, including social media, websites, applications, and live streaming platforms. This allows them to communicate Buddhist principles to people of all ages, especially youth and working adults in urban areas. This adoption of technology is considered a Buddhist innovation that helps overcome limitations of time, place, and learning format.

In terms of social processes, the Thai monastic community has integrated Buddhist principles such as loving-kindness, compassion, the Four Noble Truths, and the Buddhist philosophy of sufficiency economy into community development activities, the promotion of morality and ethics, and the resolution of social problems such as drug addiction, violence, and social inequality. Temples are used as centers for learning and public participation. This process reflects the role of the monastic community as both spiritual and social leaders.

The Buddhist innovations of the Thai Sangha therefore represent a balanced blend of "Buddhist principles," "technology," and "social processes," without abandoning the essence of Buddhism. Instead, they enhance the dissemination of Dharma, making it contemporary, accessible, and responsive to the needs of a globalized society, leading to sustainable human and social development.

Significant Buddhist innovations by the Thai Sangha.

1. Product Innovation and Environmental Management: "Recycled Robes" – The application of upcycling technology transforms plastic waste (PET bottles) into polyester fibers blended with cotton and antibacterial fibers, woven into monastic robes. This reflects environmental management according to Buddhist principles (circular economy), with Wat Chak Daeng, Samut Prakan Province, serving as a learning center (Wat Chak Daeng, 2024).

2. Innovation in Knowledge Management: "Digital Tripitaka Search System" (E-Tripitaka)

Details: Development of a system for searching Buddhist scriptures and monastic rules, enabling rapid comparison of Pali-Thai and commentaries, and supporting use via mobile application.

Importance: Elevating Buddhist scripture education and Buddhist research to international standards.

3. Innovation in Health and Social Well-being: "Kilanupatthaka" (Volunteer Monks Caring for Sick Monks)

Details: Creating process innovation by training monks in basic health care skills and working with community public health systems.

Importance: Utilizing the role of "monks caring for monks" to create health security within the monastic community and the community.

4. Innovation in Learning Media: "VR/AR Heritage & Metaverse Merit"

Details: Creating a virtual world for making merit and learning about Buddhist history, such as online candlelit processions and 3D simulations of important Buddhist sites.

Importance: Addressing the needs of the new generation (Digital Natives) in accessing religion and reducing geographical limitations.

Buddhist Innovation University for Monks

Buddhist innovation at the Buddhist University refers to the development of knowledge, teaching methods, research, and academic services by integrating Buddhist principles with modern sciences, digital technology, and contemporary social contexts. The goal is to cultivate graduates who possess academic knowledge, morality, ethics, and a sense of public service, reflecting the university's identity as a center for both intellectual and spiritual development.

The Buddhist university does not aim solely at producing technological innovations, but emphasizes "value-based innovation" founded on Buddhist principles such as wisdom, compassion, and social responsibility. It uses these principles as a framework for designing innovations to solve social problems and promote sustainable human development.

Examples of Buddhist innovations at Buddhist universities.

1. Innovative Integrated Buddhist Teaching and Learning: Buddhist universities have developed teaching models that integrate Buddhist principles with modern disciplines, such as using the Threefold Training (morality, concentration, wisdom) as a framework for learning, online learning (E-Learning) coupled with Vipassana meditation and volunteer activities. This leads to the development of learners in both knowledge and mental attributes.

Example: A Buddhist studies curriculum using an online classroom system combined with mindfulness training and reflective learning.

2. Innovative Digital Technology for Disseminating Buddhism: Utilizing digital technology such as websites, applications, social media, and multimedia to disseminate Dharma, making it easily and modernly accessible to the public.

Example: Applications for chanting prayers, listening to Dharma, or a digital database of the Tripitaka developed by Buddhist universities for study and dissemination.

3. Innovative Integrated Buddhist Research: Buddhist universities promote research that applies Buddhist principles to solve social problems, such as mental well-being, sufficiency economy, peaceful coexistence, and sustainable community development.

Example: Research on the use of mindfulness to improve the quality of life of students and people in the community.

4. Innovative Academic Service to Society 4. Integrating Buddhist knowledge into community learning processes, using temples and universities as centers for social development.

Examples: Moral and ethical camps, Buddhist-based community leadership training, or projects to develop the minds of prisoners using Buddhist principles.

5. Innovative management based on Buddhist principles: Applying Buddhist principles such as Saptaparisadhamma, Brahmavihara, and good governance to organizational management to create a transparent and ethical corporate culture.

Examples: University management systems that emphasize participation, mindfulness in decision-making, and social responsibility.

The Buddhist innovation at the Buddhist University integrates "Buddhist teachings + academia + technology + society" harmoniously, aiming to develop individuals with wisdom and virtue, prepared to face the changes of the modern world, and reflecting the unique identity of the Buddhist University as an educational institution that sustainably develops both intellect and spirit.

Integrating Buddhist innovation

Integrating "Buddhist Innovation" with "Digital Technology" is not just about adopting modern tools, but about preserving the essence of Dharma and disseminating it effectively in the modern global context. This reflects the identity of Mahachulalongkornrajavidyalaya University (MCU) through three main dimensions:

1. Learning: From "Palm Leaf Manuscripts" to "Cloud Wisdom" Using technology to store and transmit Buddhist wisdom makes the study of the Tripitaka and other religious scriptures more accessible and in-depth.

AI-Enhanced Tripitaka: Using algorithms to assist in searching, translating, and connecting various commentaries makes the study of traditional Buddhist studies faster and more accurate.

Virtual Dhamma Class: Creating a virtual learning environment (VR/AR) to simulate events in the Buddha's life or important religious sites, helping students visualize and experience "Dhamma-sangvech" or a deeper understanding than simply reading textbooks.

2. Practice: "Digital Mindfulness" Using technology to support Vipassanā meditation practice, a strength of Buddhist universities.

Biofeedback & Meditation: Using brainwave or heart rate monitoring devices in conjunction with meditation practice. To enable practitioners to see the state of mind in a more concrete way (in a scientific sense):

Vipassana Application: Developing tools that promote consistency in practice and online submission of assignments to the teacher, allowing Dhamma practice to be done "anywhere, anytime."

3. In terms of dissemination: "Social Engaged Buddhism" Using digital tools to function as "Dhamma messengers" to solve social problems.

Buddhist AI Chatbots: Developing artificial intelligence that can answer basic Dhamma questions or provide psychological counseling based on Buddhist principles to serve as a source of spiritual support for the younger generation during stressful situations.

Data-Driven Dhamma: Analyzing data (Big Data) to observe social trends and interests, then producing Dhamma content that aligns with the temperament and problems of people today.

Conclusion

Buddhist innovation in the context of Buddhist universities reflects the effort to harmoniously integrate the core principles of Buddhism with digital technology and social processes. This innovation does not merely mean using modern tools, but also maintaining the core principles in an accessible, effective, and responsive manner to the needs of contemporary society. Buddhist innovation begins with an analysis of societal problems and needs. Then, core principles such as the Threefold Training, the Four Noble Truths, the Eightfold Path, and Buddhist ethics are applied alongside technology and creativity to develop new processes, methods, and tools that create sustainable intellectual, ethical, and social value. In teaching, Buddhist universities integrate Buddhist principles with modern disciplines through online systems, reflective learning, and volunteer activities to develop students' knowledge and spiritual qualities. For example, meditation practice is integrated with Buddhist studies via e-learning platforms. In practice, digital technology supports Vipassana meditation, such as biofeedback applications to track practice, allowing students to practice anytime, anywhere. In dissemination, technology is a crucial tool for reaching modern audiences. Through social media, websites, applications, and the development of artificial intelligence capable of answering Dharma questions or providing psychological counseling based on Buddhist principles, along with big data analytics, the dissemination of Dharma is directly relevant to societal interests and issues.

Buddhist innovation at Buddhist universities also reflects a clear identity in producing graduates with knowledge coupled with morality and public spirit. Integrated Buddhist research, academic service to society, and management based on good governance are all examples of the balanced integration of Buddhist teachings with academia, technology, and social processes. These actions not only help make Dharma more accessible to a wider audience but also promote sustainable human development in terms of intellect, spirit, and society, reflecting the identity of Buddhist universities as educational institutions that foster both intellect and morality in the digital age.

In summary, Buddhist innovation at Buddhist universities is a profound integration of core Dharma principles, digital technology, and social processes to develop balanced, moral individuals and societies capable of adapting sustainably to the changes of the modern world.

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