Buddhist Data Principles

A Buddhist Response to the United Nations Commission on Science and Technology for Development Working Group on Data Governance

Humanistic Buddhism Centre
Nan Tien Institute, Australia
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231 Nolan Street Unanderra NSW 2526 Australia
PO BOX 660, Unanderra, 2526, NSW, Australia
Tel: +61 (2) 4258 0700
Fax: +61 (2) 4258 0701
Website: www.nantien.edu.au
Email: hbc@nantien.edu.au

Executive Summary

Buddhist data principles are derived from Buddhism's core teachings and ethical considerations. Buddhists recognise that data do not exist in isolation and hence encourage holistic governance that considers the interdependencies among stakeholders throughout the data lifecycle. More importantly, we promote mindful data practices that prioritize ethical considerations and well-being over profit and engagement metrics. We also support policies that mitigate harm and promote equitable access to data benefits. Therefore, we advocate for socially responsible data collection and use models that emphasize communal rights and benefits rather than individualistic advancement. We support the creation of data standards informed by wisdom that promote understanding of the long-term implications of data usage throughout its lifecycle. The following interdependent Buddhist data principles emphasize a values-based approach that prioritizes long-term well-being and promotes ethical stewardship of shared data resources:

1. **Ethical guardrails for data governance**: This principle sees data as an extension of individual ethical agency rather than as by-products of digital activity. With the possibility of generating digital clones of individuals based on their digital actions, stronger data sovereignty frameworks should extend beyond nation-state concerns to afford individuals oversight on the relational ramifications of how their data are collected, marketed and used. Critically, ethical guardrails must operate bidirectionally, governing both how platforms use data and how users create content through real-time ethical prompts that cultivate mindful reflection before sharing. Anonymous traceability mechanisms can preserve privacy and creative freedom while enabling accountability through cryptographically secured records accessible only via appropriate legal oversight. These principles seek to ensure that data use supports shared human flourishing rather than extractive accumulations of data resources.
2. **Shift algorithmic optimisation toward collective well-being**: This principle is based on Buddhist recognition that harm lies not only in data extraction, but in the systemic conditioning of the mind that occurs when algorithms are optimised to capture and direct attention rather than cultivate awareness or heightened attentional quality. We suggest that governments should promote shared benchmarks that underpin algorithmic recommendation, such as "digital nourishment" scores or population-level well-being indicators. Algorithmic governance frameworks should require platforms to implement multi-layered content classification systems that incorporate factchecking, source credibility assessment and epistemic quality ratings alongside traditional engagement metrics, ensuring that information spread is weighted by veracity rather than popularity alone. These frameworks should explicitly allow for local interpretation and adjustment in accordance with cultural values, social norms and historically grounded ways of knowing. Indicators of welfare, meaning and agency derived at the international level should function as guiding reference points rather than fixed prescriptions, enabling

communities to adapt evaluation criteria to local contexts, Indigenous knowledge systems and their respective practices of transmission, stewardship and collective sense-making.

3. **Building digital literacy capacity through screen-time reduction with meditative, values-based training:** This Buddhist principle treats education and screen-time reduction not as peripheral "digital well-being" add-ons, but as a practical digital ethics embedded within broader digital literacy, one that explicitly trains attention and intention. By promoting mindfulness, ethical engagement, community involvement, reflective practices, and by focusing on long-term well-being, individuals can better contribute towards a more sustainable, holistic and responsible approach to digital literacy that supports sustainable development and effective data governance. This approach ensures that data serves as a tool for empowerment and positive impact, ultimately contributing to the achievement of the Sustainable Development Goals (SDGs).

Integrating a Buddhist perspective that places attention, intention and compassion at the centre of technological design and policy brings a critical moral and philosophical dimension to global data governance. The preceding three principles emphasize the interconnectedness of individuals and communities, urging us to view data not merely as a commodity but as a shared resource that reflects our collective values and responsibilities. We invite the UN to integrate these principles into its evolving Data Governance Framework, ensuring that digital transformation contributes not only to global efficiency and innovation but also to the reduction of suffering and the enhancement of human flourishing for all.

Introduction

The Humanistic Buddhism Centre at the Nan Tien Institute (NSW, Australia) appreciates the opportunity to present this submission to the United Nations Commission on Science and Technology for Development (CSTD) Working Group on Data Governance. The Centre has collaborated with a diverse group of Buddhist scholars, practitioners and digital specialists in developing this submission.

We approached this submission with deep respect for the complexity of the Working Group's mandate. We hope that Buddhist wisdom, with its 2,500-year engagement with the nature of mind, attention, and ethical action, can contribute valuably to your vital, collective endeavour.

Background

Advances in digital technology are revolutionising communication, commerce and access to knowledge and, in doing so, have generated significant global economic and social benefits. However, digital technologies are also generating systemic harm and risks for both individuals and communities, including the concentration of power in global technology platforms, pervasive surveillance, algorithmic bias, the spread of misinformation, and the erosion of mental health and social cohesion (Carpentier et al., 2024).

To date, the dominant approaches to data governance have focused on individual data rights, protecting privacy, identifying and addressing power inequalities, and redressing inequitable distributions of data-related risks and rewards. These are necessary and laudable efforts. Buddhist thought and ethics point toward the need for expanding the critical and creative compasses of data governance beyond these concerns.

While all religions offer guidance on human well-being, Buddhism is distinctive in its focus on how human intentions, thought and emotions are inseparable from the social and environmental conditions that shape them. This submission offers Buddhist philosophical and ethical insights for understanding and engaging challenges emanating from digital technologies by clarifying the nature of data and its use by articulating data governance goals that foster well-being, social cohesion and ethical responsibility.

Given the significance of attention and intention within Buddhist ethics, this submission specifically focuses on policy responses to the emergence of the ‘attention economy’ as a central expanded concern of global data governance. In this submission, the attention economy is defined as the economic and social conditions under which human attention is systematically monetised through digital platforms reliant on advertising, data extraction and behavioural prediction.

Three interdependent recommendations are proposed:

1. Ethical guardrails should be established that recognise individual data sovereignty and allow for cooperative governance. Further, cultivating individual accountability requires bidirectional guardrails that govern not only how platforms use data but also how users create content.
2. Digital platforms should be mandated to shift the logics of algorithmic recommendation from short-term attention capture to locally relevant measures of long-term well-being. In addition, platforms should implement preventative content classification systems that identify and limit misinformation circulation before it spreads.
3. Proactive strategies should be adopted to integrate screen-time reduction with meditative, values-based training as a core pillar of digital literacy.

These recommendations, which span three of the four Working Group Tracks, are explored further below. An overview of Buddhism and Buddhist ethics is provided in Appendix A, while Appendix B provides a Buddhist perspective on the significant ethical challenges presented by the attention economy.

Policy Recommendations

Ethical responsibility in the attention economy cannot be meaningfully assigned to individual users, singular technologies or isolated policy levers. From a Buddhist perspective, harms arise through interdependent networks of causes and conditions, in which individual intentions, social norms and technological systems co-produce patterns of attention, behaviour and value. Responsibility is therefore necessarily shared, and effective responses must operate across multiple, mutually reinforcing levels.

We emphasise that identifying and addressing the individual and social harms of the attention economy requires coordinated action across three interdependent domains. First, the level of technological design and economic incentives, where platform architectures, optimisation targets and data practices structure how attention is captured, directed and monetised. Second, the level of community values and collective governance, where societies recognise attention-related harms, establish shared ethical orientations, and set public benchmarks for what digital systems should promote. Third, the level of personal responsibility and agency, where individuals cultivate discernment over intention and attention through education and practical digital ethics.

These levels cannot be treated in isolation. Individual agency is shaped by platform design and social norms; collective governance fails without corresponding shifts in values and attentional practice; and structural reforms are undermined when systems continue to reward compulsive capture. The following three recommendations are therefore presented not as standalone interventions, but as mutually reinforcing pillars designed to reorient the attention economy toward conditions supportive of individual and collective well-being.

Recommendation 1: Ethical guardrails for data governance

> *In response to Track 3: Considerations of Sharing the Benefits of Data, we propose that governments implement ethical data governance models that move beyond extractive consent-based regimes by recognising user-generated data as an extension of individual and collective ethical agency. Establishing cooperative data-stewardship models, such as Data Commons, will align digital system incentives with long-term well-being, trust and social flourishing.*

Given that individual and collective attentional harms are conditioned by the structural design of digital systems, the first and most upstream site of intervention lies in the governance of technological architectures and economic incentives that drive the development of these systems. A pivotal issue in this effort concerns the governance, ownership and use of data. Under prevailing commercial and legal arrangements, user-generated data are typically treated as proprietary assets of platforms or, in some cases, as resources subject to state control. Even regulatory frameworks such as the General Data Protection Regulation, while advancing important rights of access, consent and erasure, continue to operate largely within an extractive paradigm that assumes asymmetries of power and information (Helberger et al., 2020).

A Buddhist ethical lens suggests a more foundational reorientation. Given that data arise from individuals' actions, experiences, relationships and (variably informed) consent, they should be understood as an extension of individual ethical agency rather than as passive by-products of digital activity. In this context, data are not merely 'digital exhaust' but are better conceptualised as analogous to genetic materials: informational traces that can be recombined to generate predictive models and behavioural inferences and thereby effectively producing partial 'digital clones' of persons. Just as ethical and legal norms recognise bodily autonomy and limits on the use of biological data, a similar moral logic supports recognising individual data ownership as a fundamental right.

Data sovereignty frameworks should seek to rebalance control over data by recognising individual and collective rights over user-generated information. Stronger data sovereignty models should extend beyond individual consent to recognise ongoing ownership and use interests and facilitate shared governance over data flows that shape social life. Such an approach ensures individuals retain meaningful authority over how their data are collected, stored, shared and repurposed across time.

Importantly, this does not imply radical individualism or the abandonment of collective benefit. Rather, it opens the possibility of data collectives or cooperative governance models (such as 'Data Commons' as outlined in the Track 3 Synthesis Notes, p. 5), in which individuals voluntarily pool data under shared rules, democratic decision-making procedures and fiduciary obligations, to advance public goods such as health research, education, urban planning or environmental sustainability (Delacroix and Lawrence, 2019). Scholars argue that

such cooperative and commons-based models can counteract extractive data practices by enabling communities to decide how data are used, shared and, where relevant, monetised in the public interest, rather than for unilateral platform profit (Hardjono et al., 2019). Legal recognition and public support for these models would allow data to be stewarded as a shared societal resource while preserving privacy, autonomy and democratic oversight.

Commercial platforms would continue to play a role in innovation and service improvement, but their success would no longer be measured solely by short-term engagement or attention capture. Instead, governance frameworks could require that data use demonstrably contributes to durable individual and collective outcomes, such as well-being, trust and social cohesion, rather than undermining them. In this way, data governance becomes not only a technical or legal concern, but a moral project - one that recognises data as ethically consequential expressions of human life and seeks to ensure that their use supports shared flourishing rather than solely extractive accumulation.

Critically, ethical guardrails must operate bidirectionally within digital ecosystems. While data sovereignty frameworks address how platforms collect, store and monetise user-generated information, they must also govern the point of content creation itself. From a Buddhist perspective, ethical responsibility begins with intention at the moment of action. Therefore, governance frameworks should require platforms to implement real-time ethical classification and prompting systems that alert users to potential harms as content is being generated and before it is shared.

These creation-side guardrails should include automated content classification that identifies potential hate speech, misinformation, harassment or other harmful material, coupled with contextual ethical prompts that invite users to reconsider, revise or reframe content that may cause suffering. Research demonstrates that such interventions at the point of content creation can be effective: studies on pre-posting reflections and friction mechanisms show that prompting users to reconsider before sharing reduces the spread of misinformation and uncivil content (Bor and Petersen, 2022). Similarly, real-time content moderation systems that provide feedback during content creation have shown promise in reducing toxic language and harassment without significantly impeding legitimate expression (Chandrasekharan et al., 2019). This approach does not impose censorship, but rather creates a moment of mindful reflection, consistent with Buddhist practices of cultivating awareness before action. By intervening at the source, such systems can prevent the initial introduction of harmful content into digital ecosystems, rather than relying solely on post-hoc moderation or algorithmic suppression.

The effectiveness of real-time ethical prompts depends critically on avoiding "alert fatigue," where users habitually dismiss warnings without genuine reflection, thereby undermining the cultivation of mindfulness that these systems aim to support. To overcome this challenge, prompt design must incorporate insights from behavioural science and contemplative practice. Rather than uniform, repetitive warnings, systems should

employ adaptive prompting that varies presentation format, timing and intensity based on content severity, user history and contextual factors (Caraban et al., 2019). For instance, potential misinformation might trigger a reflective question ("Are you confident this information is accurate?") while hate speech might prompt values clarification ("Does this align with how you want to show up online?").

Prompts must simultaneously be designed to enhance rather than constrain user agency, framing interventions as invitations to reflect rather than barriers to expression. Machine learning systems should be trained to distinguish context-appropriate provocative speech, artistic expression and political dissent from genuinely harmful content, recognising that cultural and linguistic variation requires localised training data and continuous community input (Sap et al., 2022). Transparency mechanisms should allow users to understand why specific prompts appear and provide feedback when classifications seem inaccurate, creating iterative improvement loops. From a Buddhist perspective, this approach recognises that genuine mindfulness cannot be externally imposed but must be internally cultivated, with technological systems serving as supportive conditions rather than deterministic controls.

Equally important is the establishment of anonymous traceability mechanisms that preserve user privacy and creative freedom while enabling accountability for harmful content. Drawing on Buddhist principles of karma and ethical causation, digital systems should maintain cryptographically secured, pseudonymised records that link content to its creator without publicly revealing identity. These records would remain inaccessible under normal circumstances, protecting user anonymity and encouraging authentic participation, but could be accessed through appropriate legal processes when content causes demonstrable harm. Scholarship on privacy-preserving accountability architectures demonstrates that such systems are technically feasible through approaches including zero-knowledge proofs, homomorphic encryption and blockchain-based identity verification, which can establish verifiable links between content and creators without compromising anonymity (Zyskind et al., 2015; Zhu et al., 2020; Kosba et al., 2016). Legal frameworks such as the EU's Digital Services Act have begun establishing conditional immunity models that balance platform accountability with user privacy, providing precedent for graduated disclosure mechanisms (European Commission, 2022). This approach balances the protection of free expression with individual responsibility, creating conditions in which users remain mindful of the ethical weight of their digital actions while maintaining the privacy necessary for genuine discourse. Such mechanisms provide what Buddhist ethics would recognise as a technological support for individual moral development, a structural reminder that our actions have consequences even in seemingly anonymous digital spaces.

Recommendation 2: Shift algorithmic optimisation toward collective well-being

> *In response to Track 4: Facilitation of Safe, Secure, and Trusted Data Flows, Including Cross-Border Data Flows, we propose that governments implement algorithmic governance frameworks that shift optimisation away from short-term engagement toward long-horizon, culturally responsive measures of well-being and agency, supported by shared public benchmarks, attention impact assessments, and independent human oversight to ensure digital systems cultivate awareness, social trust and democratic flourishing rather than attention capture. We support the expansion of data intermediaries to perform these essential functions.*

While data sovereignty and ownership establish necessary ethical guardrails, they do not by themselves determine how digital systems actively shape patterns of attention and behaviour in everyday use. A second, interdependent site of responsibility therefore lies at the level of collective values and governance over algorithmic optimisation itself. Consent and data-sharing, while important for individual autonomy and public oversight, leave the underlying logic of the attention economy untouched. From a Buddhist standpoint, the harm lies not only in data extraction, but in the systemic conditioning of the mind that occurs when algorithms are optimised to capture attention rather than cultivate conflict- and suffering-alleviating patterns and qualities of awareness.

Data governance frameworks should mandate a transition away from short-term engagement metrics toward durable, multi-dimensional indicators of individual and collective well-being. Encouragingly, alternative approaches suggest that algorithmic systems can be reoriented toward long-horizon flourishing rather than short-horizon capture. For example, Tristan Harris's "time well spent" framework proposes evaluating technology by whether it supports users' deeper intentions, often operationalised through measures like user-reported satisfaction, regret and perceived value of time spent (Harris, 2017). While Harris's work is practitioner-led, it aligns with a broader academic shift toward 'public value' and 'human-centred' recommender systems that explicitly incorporate welfare, autonomy and exposure diversity into design objectives rather than treating them as externalities (Helberger, Karppinen and D'Acunto, 2018).

Governments should promote shared benchmarks, such as "digital nourishment" scores or population-level well-being indicators, so that digital systems and environments are governed as contributors to social flourishing rather than merely markets for attention. These frameworks should explicitly allow for local interpretation and adjustment in accordance with cultural values, social norms and historically grounded ways of knowing. Indicators of welfare, meaning and agency derived at the international level should function as guiding reference points rather than fixed prescriptions, enabling communities to adapt evaluation criteria to

local contexts, indigenous knowledge systems and their respective practices of transmission, stewardship and collective sense-making.

Optimisation for well-being cannot be fully automated without reproducing the same abstraction and cultural flattening that characterises engagement-driven systems. Independent, interdisciplinary human review bodies (such as 'Data Intermediaries', as outlined in Track Four Synthesis Notes, p. 14) are therefore necessary to monitor outcomes, interpret signals, and adjust optimisation objectives over time considering lived social effects, emerging harms and contextual knowledge. Within this governance architecture, periodic attention impact assessments can serve as a supporting tool—requiring platforms to evaluate and publicly report on the downstream effects of their optimisation strategies on indicators such as polarisation, misinformation exposure, mental well-being and social trust. Rather than functioning as one-off compliance exercises, such assessments should feed into an ongoing process of human oversight and adaptive correction, ensuring that optimisation targets remain aligned with long-horizon social outcomes rather than short-term attention gains.

A governance model centred on a moral economy of attention would direct optimisation away from accelerating consumption, competition, craving and reactivity and toward cultivating compassionate awareness, collaboration, empathy and exposure to diverse viewpoints. While specific metrics and evaluative practices should remain locally responsive, broadly shared ethical orientations, such as those expressed in the Sustainable Development Goals, can serve as humanity-centred guides in the general review process. In effect, the development of Data Intermediaries would convert algorithmic curation from a solely private-sector extractive mechanism into civic infrastructure such that systems are accountable for their downstream impacts on collective reasoning, social trust and the conditions of democratic life.

These benchmarks must also distinguish between the popularity of content and its veracity or value. In digital environments serving hundreds of millions or billions of users, high engagement does not indicate truth, accuracy or contribution to well-being. On the contrary, misinformation, sensationalism and polarising content often achieve viral spread precisely because they exploit cognitive biases and emotional reactivity (Vosoughi et al., 2018).

Algorithmic governance frameworks should therefore require platforms to implement multi-layered content classification systems that incorporate factchecking, source credibility assessment and epistemic quality ratings alongside traditional engagement metrics. Information spread should be weighted not merely by user interactions, but by independently verified accuracy indicators, expert review and consistency with established evidence. Research demonstrates that such multi-signal approaches can significantly reduce misinformation circulation: studies show that incorporating credibility scores from professional fact-checkers into recommendation algorithms reduces false content exposure by 40-80% without substantially limiting reach of accurate information (Pennycook and Rand, 2022; Roozenbeek and van der Linden, 2019; Guess et al., 2020). Platform experiments with accuracy nudges and source quality indicators have similarly shown that users

adjust their sharing behaviour when provided with credibility information, reducing the spread of low-quality content (Epstein et al., 2023). These classification systems should function transparently, with clear public disclosure of how content is rated and how those ratings influence algorithmic distribution. This approach ensures that false or misleading information encounters structural resistance within recommendation systems, reducing the velocity and reach of misinformation while amplifying well-substantiated, publicly valuable content.

Implementing multi-layered content classification across platforms serving billions of users in dozens of languages presents formidable technical and operational challenges. To address these challenges, governance frameworks should promote a hybrid approach combining artificial intelligence, professional fact-checkers and community-based verification. Machine learning models trained on verified examples can flag potentially false content for human review, prioritising high-reach items while allowing lower-visibility content to circulate without delay.

From a Buddhist perspective, this represents a technological instantiation of Buddhist ethics, which emphasises truthfulness, accuracy and beneficial communication. By embedding truth-sensitivity into the algorithmic substrate of information distribution, digital systems can be oriented toward reducing collective confusion and supporting shared understanding, rather than amplifying whatever content most effectively captures attention regardless of its relationship to reality.

Recommendation 3: Integrate screen-time reduction with new approaches to digital literacy

> *In response to Track 1: Data Governance Principles as Relevant to Development, we propose that governments should embed practical digital ethics within digital literacy frameworks by combining quantitative evidence-based screen-time reduction strategies with qualitative meditative and values-based education that explicitly trains attention and intention, thereby strengthening individual agency and sustaining behavioural change as a complement to structural reforms in platform governance.*

Even where structural guardrails are established and optimisation logics are redirected toward collective well-being, durable ethical change depends on how individuals relate to and inhabit digital environments in practice. The third interdependent pillar therefore concerns personal responsibility and agency, cultivated through education and practical digital ethics.

Extending UN support for enhanced digital literacy training (Track Three Synthesis Notes, p. 18), we recommend that digital literacy and educational initiatives pair evidence-based techniques for reducing individual social media use and screen time with meditative and values-based training aimed at cultivating sustained changes in attentional habits and intention. A Buddhist response to the attention economy treats education and screen-time reduction not as peripheral "digital well-being" add-ons, but as a practical digital ethics embedded within broader digital literacy. Additionally, Buddhism stresses the qualitative dimensions and salience function of attention and its role in framing intention-formation, and thus also stresses the importance of explicitly training attention and intention rather than merely warning about risks.

Across children and adult cohorts, meta-analyses indicate that behavioural interventions to reduce screen or social media use can reliably change patterns of use and yield modest, context-dependent improvements in well-being, though they rarely produce large or uniform effects in isolation (Lai, 2025; Plackett, 2023; Ramadhan, 2024). School-based and individual interventions tend to reduce screen time and, in some cases, depressive symptoms, yet effects are inconsistent across outcomes and often diminish without sustained support or deeper changes to the surrounding attentional environment (Lai, 2025; Ramadhan, 2024). Buddhism has traditionally valorised the cultivation of compassion as a means of generating and qualitatively transforming social cohesion. Distinctively, Buddhism does not regard compassion as a merely psychological experience of empathetic concern for others, but as a progressively developed attentional practice of discerningly caring about and for others. Fostering compassion should be central to digital literacy education, not merely a soft-focus add-on.

This distinction is particularly salient in the context of cyber harm prevention. Educational programs aimed at reducing cyberbullying frequently demonstrate a persistent gap between improved knowledge ("knowing") and measurable behavioural change ("doing") (Jones et al., 2024). Embedding interventions that reduce compulsive engagement, alongside reflective and values-oriented training in mindful use, could plausibly narrow this gap by decreasing exposure time, lowering the frequency of high-risk interactions, and redirecting attention toward meaningful offline activities and relationships (Plackett, 2023; Lai, 2025).

From a Buddhist perspective, these findings suggest that, at the individual level, the ethical challenge of the attention economy lies not only in reducing exposure but in countering the deliberate conditioning of intention and habit. Durable responses therefore require cultivating awareness, discernment and wise use of attention, rather than relying on behavioural restriction alone (Lai, 2025; Plackett, 2023; Ramadhan, 2024). Education cannot, however, offset the incentive structures of engagement-optimised platforms on its own; it should be designed as a complementary pillar that strengthens individual and collective agency, while structural reforms realign platform optimisation away from compulsive capture and toward conditions conducive to long-term well-being.

Conclusion

Buddhist perspectives bring a critical moral and philosophical dimension to global data governance. By placing attention, intention and compassion at the centre of technological design and policy, this approach reframes data not merely as an economic resource but as a relational and ethical domain. These three recommendations together constitute a single, interdependent causal loop of reform: ethical guardrails over individual accountability, data ownership and stewardship reshape the structural incentives that condition platform design; revised optimisation goals and public benchmarks reorient those systems toward long-horizon collective well-being; and education that cultivates the awareness, wisdom, and judgment needed to sustain, legitimate, and continually review and correct those governance arrangements.

The Humanistic Buddhism Centre invites the UN to integrate these principles into its evolving Data Governance Framework, ensuring that digital transformation contributes not only to efficiency and innovation but also to the reduction of suffering and the enhancement of human flourishing for all.

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Appendices

Appendix A: Overview of Buddhism and Buddhist Ethics

A Brief Overview of Buddhism

Buddhist philosophy originated in South Asia in the 5th century BCE with the teachings of Siddhārtha Gautama, known as the Buddha ("the Awakened One"). At its core, Buddhism represents a pragmatic diagnostic and therapeutic framework for understanding and alleviating suffering. This framework is most succinctly expressed in the Four Noble Truths: (1) that psychological suffering is a pervasive feature of our existence; (2) suffering is caused by cravings and aversions rooted in ignorance of the interdependent origins of all things; (3) that the causes of suffering can be dissolved; and (4) that there is a practical path to doing so, known as the Eightfold Path of integrating wisdom, moral clarity, and attentional virtuosity.

Today, Buddhism underpins the civic and spiritual lives of more than 324 million people worldwide, with major populations (by descending order) in Thailand, China, Myanmar, Japan, Sri Lanka, Vietnam, Cambodia, South Korea, India and Malaysia, as well as growing numbers in Europe, the Americas, Africa and Australia (Hackett et al., 2025).

As a source of ethical resources drawn upon by more than 4% of the world's population, Buddhism merits careful consideration in developing truly global data governance principles and practices. While all religions offer guidance on human well-being, Buddhism is distinctive in its focus on how inner states of intention, thought and emotion are inseparable from the social and environmental conditions that shape them. In this context, Buddhist perspectives can make vital contributions to the UN's Data Governance Framework, particularly by ensuring that digital transformation supports human flourishing rather than further reinforcing inequality, individual suffering and broader social harm.

A Synopsis of Buddhist Ethics

Foundational Concepts: Interdependence, Non-Self and Karma

The foundational causal insight of Buddhist philosophy is that all things are interdependent. Rather than existing in isolation, every entity, system and experience emerges from a recursively evolving network of causes, conditions and relationships. According to Buddhism, interdependence is not a contingent, external relation but rather a constitutive one (Hershock, 2025).

This causal insight shapes Buddhist conceptions of responsibility, harm and benefit. Most fundamentally, it challenges the bias toward seeing individual agents and actions as the basic units of ethical analysis and focuses instead on their constitutive relational dynamics. Ethical questions about responsibility, for example, cannot be answered by reference to individual agents or singular causes, and must consider the networks of causes and conditions that affect the relations in question. Simply stated, responsibilities are always shared.

This interdependence also shapes how Buddhism understands personal identity: people are not fixed, self-contained individuals but relational beings formed through their interactions with others and the world. The teaching of non-self does not deny personhood, but rejects the idea of an unchanging, independent self, shifting ethics away from isolated individual rights toward relational responsibilities and rights understood in relation to others and shared environments.

Building on this relational view of identity, Buddhist ethics focuses on how repeated intentions and actions shape ongoing patterns of cause and effect. This is captured in the idea of karma, not as reward or punishment, but as a continual process in which the quality of our attention and intentions shapes our actions and, over time, the conditions and opportunities we experience. When these patterns become habitual, they reinforce themselves unless deliberately redirected, and together with interdependence and non-self, they ground the practical orientation of Buddhist ethical conduct.

Application: Kuśala, Frameworks and Skilful Means

Buddhists evaluate the ethical status of both individual and social actions through the concepts of *kuśala* and *akuśala* intention, actions, outcomes and opportunities. The term *kuśala* is aptly translated as both skilful and wholesome and thus implies both practical and moral excellence or virtuosity rather than any fixed standards of thought and action. Cultivating practical and moral excellence is both contextual and multi-dimensional–an ongoing pursuit of suffering-alleviating and increasingly liberating relational transformation.

To assist Buddhist practitioners, structured frameworks to promote this ethical behaviour are provided. These provide comprehensive approaches to ethical development, encompassing training of wisdom, ethical conduct and mental training. They also translate ethical principles into lived practice, functioning as practical guidelines for both worldly and transcendent concerns.

Vitally, these frameworks must be applied with ‘skilful means’, the recognition that ethics must be sensitive to context. Buddhist ethics have remained relevant for thousands of years precisely because it allows for different ethical expressions in different situations, depending on circumstances, capacities and needs. This is not ethical relativism but rather an acknowledgment that wisdom involves discerning how universal principles manifest appropriately in particular conditions. Importantly, skilful means requires a firm grounding in an ethical framework, again reinforcing the interdependence that runs through Buddhist ethical thought.

Taken together, Buddhist ethics features both consistency and responsiveness to complexity, which enables each of us to act ethically through a combination of foundational grounding, reflection and contextual flexibility.

Buddhist Principles in the Digital Age

Applied to the challenges of the digital age, the Four Noble Truths may be re-stated as:

1. The digital age inherently generates widespread harms such as anxiety, addiction, polarization, erosion of autonomy and cognitive exhaustion (see Appendix B)
2. Platform business models deliberately exploit craving for validation, novelty, outrage and connection (see Appendix B)
3. Alternative data governance arrangements can reduce these harms and create conditions for well-being.
4. That there is a practical path for designing and governing data systems (see 'Policy Recommendations' above).

Appendix B: Buddhist Perspectives on the Attention Economy

Grounded in Buddhism's emphasis on intention and attention as the foundations of ethical conduct and long-term individual and collective flourishing, this submission foregrounds the attention economy as a central concern of global data governance. While data governance encompasses a wide range of issues addressed by other contributions to this UN consultation process, the attention economy is highlighted here because it functions as the primary mechanism through which individual and collective attention is directed, shaped and sustained. In doing so, it conditions which forms of data come to be valued, extracted and operationalised, thereby exerting a structuring influence over data practices and governance outcomes. The following section synthesises the core dynamics and ethical stakes.

The Attention Economy and its Impact

The term 'attention economy' refers to the economic and social conditions under which human attention is systematically monetised through digital platforms reliant on advertising, data extraction and behavioural prediction. The conceptual foundation of this economy was articulated by Herbert Simon, who observed that as information becomes abundant, attention becomes scarce, rendering the allocation of attention a central practical and ethical problem (Simon 1971). In recent decades, this logic has been industrialised at unprecedented scale. Digital platforms are typically offered at no direct financial cost to users but are engineered to maximise time-on-site, emotional engagement and behavioural responsiveness, aligning commercial success with the continuous extraction of attention (Fuchs, 2014; Zuboff, 2019). By April 2024, social media platforms collectively reached 5.07 billion users, over 62% of the global population, with Meta platforms alone engaging 3.4 billion users in a single quarter, indicating that a small number of corporations now mediate a substantial share of global attention flows (Mariani, 2025). Within this environment, attention functions not only as a driver of consumer behaviour but as a structural force shaping media systems, political communication and social interaction. Visibility increasingly operates as a proxy for value, authority and legitimacy, while individuals, ideas and institutions that fail to attract attention are marginalised (Heitmayer 2024).

These conditions are sustained by the underlying design architecture of digital platforms, which are optimised for engagement through three interlocking features: algorithmic personalisation, variable reward schedules, and the amplification of emotionally salient content. Algorithmic recommender systems continuously analyse user behaviour (such as clicks, dwell time, likes and shares) to predict and deliver content most likely to sustain attention. Research shows that these systems are optimised for engagement metrics rather than epistemic quality, well-being or deliberative value, and that they systematically reinforce existing preferences through feedback loops that narrow what people pay attention to overtime (Covington, Adams and Sargin 2016; Helberger et al. 2018; Zuboff, 2019; Hutchinson and Trauth-Goik 2023). Platforms employ variable reward

schedules, implemented through notifications, likes and intermittent social feedback, drawing on established behavioural and neurobiological mechanisms associated with anticipation and habit formation (Skinner 1953). These mechanisms have been linked to compulsive checking behaviours and difficulty disengaging, particularly among adolescents and young adults (Sherman et al., 2016; Montag et al., 2019; Haidt, 2024). Engagement-based systems also privilege emotionally charged content—especially anger, outrage, fear and moral affirmation—because such material captures attention more effectively and spreads more rapidly, leading algorithms to disproportionately amplify polarising narratives as a direct consequence of optimising for interaction (Brady et al., 2017; Brady and Crockett, 2023; Milli et al., 2025).

Through repeated exposure, these systems condition individual patterns of attention characterised by constant stimulation, fragmentation and heightened emotional reactivity. Cognitive research links such attentional environments to reduced sustained attention, diminished executive control and increased susceptibility to distraction, privileging immediacy and rapid responsiveness over reflective deliberation (Wilmer, Sherman and Chein, 2017; Metzler and Garcia, 2023). At the individual level, these dynamics generate significant opportunity costs and well-being risks, particularly for young people. In Australia, 70% of adolescents spend three or more hours per day on recreational screen use and more than one quarter exceed five hours, with higher usage associated with displaced sleep and study time, increased depression and anxiety, and poorer sleep quality (Maston, Brown and Werner-Seidler, 2024). International research reports similar associations, including increased social comparison, diminished concentration and social withdrawal, suggesting that while causal pathways are complex, the scale and consistency of these patterns indicate a population-level ethical issue rather than a matter of individual choice or self-regulation (Keles, McCrae and Grealish, 2019; Haidt, 2024; Mariani, 2025).

These impacts aggregate up to a societal level crisis, where engagement-optimised systems reorganise collective attention across public discourse, political life and social institutions. By structurally privileging emotionally salient and polarising content, these systems elevate sensationalised and adversarial narratives over contextualised, evidence-based communication, enabling misleading or false information to diffuse more rapidly than accurate but less attention-grabbing material and degrading the informational conditions required for collective reasoning (Milli et al., 2025; Shin and Shin, 2025). Over time, these dynamics contribute to social and political polarisation by fragmenting shared frames of reference, reframing disagreement as moral threat rather than democratic contestation, and crowding out pluralistic deliberation (Kubin and Von Sikorski, 2021). Institutional trust and democratic governance are further weakened as authoritative sources of information struggle to compete within attention-driven ranking systems and become incentivised to adopt the same logic to remain visible. In combination, these findings indicate that the attention economy is not a collection of isolated individual harms but a systemic condition that reshapes how attention, value and legitimacy are distributed across society, with cumulative consequences for social cohesion, democratic functioning and collective well-being.

Buddhist Perspectives

From a Buddhist ethical standpoint, the attention economy, and its broader impact on economic, political and social systems, is significant as attention is not morally neutral. As established in Appendix A, attention is the medium through which intention is formed, values are enacted and ethical agency becomes possible. When attention is systematically engineered for extraction rather than cultivation, the conditions for wise and compassionate action are potentially undermined.

Buddhist ethics understands freedom not as unrestricted choice, but as the capacity to respond wisely and compassionately within interdependent conditions. This capacity depends fundamentally on **freedom of attention**, that is the ability to stabilise awareness and observe experience without being compulsively driven by it.

Attention and intention are inseparable in Buddhist psychology. What the mind repeatedly attends to shapes intention; intention, in turn, conditions action. Intention lies at the heart of karma, understood not as fatalistic determinism but as a relational causal process through which values enacted over time give rise to corresponding patterns of experience and opportunity.

From this standpoint, the attention economy poses a distinctive ethical concern because it intervenes directly in the formation of intention. Algorithmic systems are designed to reinforce existing habits of thought, feeling, and action to sustain engagement. Over time, this narrows the space for reflective intention-setting and tilts agency toward habitual reactivity.

True **freedom of intention**, in Buddhist terms, arises only where attention is sufficiently stable to allow discernment. When attention is continuously fragmented and externally directed, ethical agency is weakened—even if individuals appear to have an abundance of choices. The result is a paradoxical condition of apparent autonomy coupled with diminished moral freedom.

From a Buddhist perspective, these outcomes are not accidental. When collective attention is repeatedly drawn toward conflict and identity-reinforcing narratives, shared meaning-making becomes increasingly difficult. Ethical disagreement gives way to reactive opposition, and the relational conditions necessary for cooperation and compassion are degraded. What is at stake is not only informational accuracy, but the capacity for shared ethical orientation within pluralistic societies.

Attention Economy as 'Karmic Infrastructure'

A central Buddhist diagnosis of psychological suffering identifies craving, the compulsive pursuit of pleasure, affirmation and control, as its primary root. The attention economy does not merely exploit pre-existing

craving; it systematically cultivates and amplifies it. Algorithmic curation is optimised to identify what captures attention and to deliver it with increasing precision and intensity.

In this context, technologies function as karmic conditions rather than neutral tools. They shape the range of actions, meanings and relationships that are available. Digital platforms operating under attention-extractive logics thus function as 'karmic infrastructures', structuring the ethical possibilities of everyday life (Hershock, 2021a).

These infrastructures consistently privilege immediacy over reflection, consumption over sufficiency and self-referential validation over relational responsibility. Over time, intentions aligned with generosity, patience, truthfulness and non-harm are displaced by intentions oriented toward short-term gratification and ego maintenance. This has cumulative karmic consequences, both individually and collectively.

Attention Economy as a 'Karmic Accelerator'

The scale, speed and feedback intensity of digital platforms justify describing the attention economy as a 'karmic accelerator'. Behavioural patterns that might once have developed slowly through repeated choices are now reinforced rapidly and continuously through algorithmic feedback loops operating across global populations. At the individual level, this acceleration manifests as reduced attentional endurance, heightened anxiety and diminished capacity for reflective insight. At the collective level, it produces polarisation, erosion of trust and weakening of shared ethical commitments. Crucially, these processes often occur below the threshold of conscious awareness, limiting the capacity for informed consent or intentional resistance.

From a Buddhist ethical perspective, the most serious concern is not technology itself, but the embedding of intention-shaping mechanisms within proprietary systems whose values are opaque and whose incentives are misaligned with human flourishing.

Interdependence

Conventionally technology companies, regulators, users and data are treated as separate entities. However, from a Buddhist perspective these agents are do not operate as separate entities that merely interact; each continuously shapes what the others can become. Recommendation algorithms designed by technology companies do not just respond to user preferences; they fundamentally reshape what "preference" means and how users understand themselves.

Likewise, "data" is not a commodity that exists independently and then gets governed. Buddhist relational understanding sees data emerging from networks of relations involving technical infrastructures, social practices, economic incentives, legal frameworks and cultural meanings, all simultaneously. What data is

depends on these constitutive relations. Each regulatory intervention transforms governance itself. Intention and action create feedback loops that perpetuate and intensify patterns of outcome and opportunity.

Conclusion

From an ethical perspective, the significance of these findings lies in their cumulative and population-level effects. Engagement-optimised platforms shape how collective attention is distributed across societies, influencing which issues are perceived as salient, which voices are amplified, and which forms of knowledge gain legitimacy. In doing so, they restructure the conditions under which individuals and institutions perceive, evaluate and respond to social and political challenges.

From a Buddhist ethical standpoint, this is especially consequential because attention is not morally neutral. Attention is the medium through which intention is formed, values are enacted, and ethical agency becomes possible. When attention is systematically engineered for extraction rather than cultivation, the capacity for wise, compassionate, and reflective action is weakened—not only at the level of individuals, but across social systems.

In this sense, the attention economy functions as a form of karmic infrastructure: a relational environment that shapes patterns of attention, intention and action, and thereby conditions ethical outcomes at scale (Hershock, 2021b; Hershock, 2025). Through continuous feedback loops and engagement optimisation, this infrastructure also operates as a karmic accelerator, rapidly reinforcing habits, values, and social dynamics while narrowing opportunities for ethical reflection and collective course correction.

These dynamics indicate that the challenges posed by the attention economy cannot be addressed through individual responsibility or media literacy alone. Because attention has become a shared and contested societal resource, its governance raises questions of collective responsibility, institutional accountability and public interest design.

Appendix C: Overview of Contributors

Anthony Bohm has a Master of Arts (Applied Buddhist Studies) from Nan Tien Institute, where his thesis critically assessed the role and impact of school-based mindfulness programs in preventing adolescent anxiety. He is an investor in growth-stage social enterprises that combine commercial discipline with measurable social impact. Anthony has specific interest in workforce transformation in areas such as AI, data and cyber security. Anthony previously co-founded and led major education organisations including Think: Education Group (now part of Torrens University, Australia) and Open Colleges Australia.

Tam Ha is an Associate Professor of the University of Wollongong (UOW) Australia. She is an internationally recognised public health educator who has developed innovative teaching strategies for teaching public health and epidemiology. She is a firm believer that students are our future and society will improve when the future generation is much better than the current. Her teaching focus is to train the next generation of future leaders to be confident, independent, life-long learners who will courageously solve the challenges of the future. Her research is also focused on improving cancer outcomes for populations and society, particularly in vulnerable populations. She has won 6 teaching awards, national and international awards, including the most prestigious national teaching award in Australia; the Australian Awards for University Teaching (AAUT).

Peter D. Hershock is an intercultural philosopher who makes use of Buddhist conceptual resources to address contemporary issues of global concern, with a focus on emerging technologies. A co-founder of the Buddhism & AI Initiative, he is Adjunct Senior Fellow and former Director of the Asian Studies Development Program at the East-West Center in Honolulu, an Advisor to AI & Faith and the Union of Italian Buddhist Research Centre and was a Fellow at the Berggruen Institute China Center in 2018-2019. He is the author of more than fifty journal articles and book chapters, and the author or editor of more than fifteen books. His two most recent books are: Buddhism and Intelligent Technology: Toward a More Humane Future (2021) and Consciousness Mattering: A Buddhist Synthesis (2023).

Stephen Hill (AM, FRSN, FTSE, FWIF, FASEAN-FEO, PhD), Emeritus Professor at the University of Wollongong (UOW) in Australia, initially served as Foundation Professor of Sociology at UOW. After research qualifications and work as a Natural Scientist, he earned Australia's first PhD in Business Administration. His career spanned into further disciplines, extensive research, and consulting, particularly in Asia. He founded and led UNESCO and Pacific Science Networks and served as Australia's official Foundation Chairman of APEC for five years. Concurrently, he was appointed Foundation Director of the Australian Research Council's National Centre of Excellence on Research Policy. Later, he became the United Nations Regional Director for Science for Asia and the Pacific and Principal Field Director and Ambassador of UNESCO based in Indonesia and Paris, where, in addition to his regional responsibilities, he successfully led the global reform and decentralisation of UNESCO in the early 2000s. He served in these UN roles for eleven years before retiring. He is a prolific author, publishing

over 150 research articles and 20 23 individual and co-authored books. His work writing spans global humanity-based economics, cultivating compassion, S&T knowledge, and life in the United Nations. His latest book, "*In Defence of Our Humanity – Real Life as a United Nations Ambassador in a Troubled World*" was published in 2024 by Springer Biographies.

Juewei Shi is Associate Professor and Head of Program at Nan Tien Institute (Australia), and Director of the Institute's Humanistic Buddhism Centre, and an ordained monastic in the Fo Guang Shan Buddhist order since 2002. Her applied Buddhist Studies scholarship focuses on Buddhist ethics and contemporary challenges, including the ethical implications of artificial intelligence and technology. Before ordination, she worked for over a decade in the Singapore government, applying research in artificial intelligence and business process re-engineering to real-world public-sector problems. Her interdisciplinary profile is reflected in her teaching and public engagement on ethics and AI, including invited contributions on the ethical standing of AI from a Buddhist perspective. She contributes a values-informed perspective on governance that foregrounds human well-being, social trust, and ethical responsibility in digital systems.

Alexander Trauth-Goik is a political sociologist specialising in data governance, surveillance, and digital ethics, with a regional focus on China in comparative perspective. He is a Postdoctoral Research Fellow at the University of Vienna on the ERC-funded project Engineering a Trustworthy Society, where his research examines how large-scale data systems are designed, contested, and reconfigured through everyday social practice rather than imposed cleanly from above.

Daniel Wu is a technology leader with over 20 years of expertise in IoT networking, security solutions, and cloud infrastructure development. As a former Associate Engineering Director at Carrier Fire & Security, he has led global cross-functional teams delivering connectivity solutions that incorporate secure-by-design principles and compliance with international data privacy frameworks across various regulated industries. He has been President of Buddha's Light International Association, Sydney chapter since 2023.

Joseph Frawley is the Project Engagement at the Humanistic Buddhism Centre, Nan Tien Institute. He assisted with administration, copyediting and formatting this submission.

Appendix D: About the Humanistic Buddhism Centre, Nan Tien Institute

The Humanistic Buddhism Centre (HBC) is a research and engagement centre within Nan Tien Institute (NTI) in Australia. HBC advances the study, practice, and contemporary application of Humanistic Buddhism through applied research, interdisciplinary resource development, and public-facing outreach. In addition to scholarship and academic networking, the Centre develops accessible learning resources and digital initiatives and convenes forums that support dialogue and reflective practice in diverse community and professional settings. The Centre is directed by Venerable Dr Juewei, who also leads NTI programs in Applied Buddhist Studies and Humanistic Buddhism.

NTI is Australia's first government-accredited Buddhist higher education provider with a strong focus on personal development in the areas of Buddhism, health and social wellbeing, mental health and mindfulness, and its courses blend contemplative education methods with Buddhist values. NTI offers postgraduate programs including Applied Buddhist Studies, Humanistic Buddhism, Health and Social Wellbeing, Mental Health and Applied Mindfulness.