World Series of Innovation (2025)
EY Responsible AI Challenge (Chapter: WSI Impact League (ages 13-24))

DiaLog

JIrlODOR

Entrant details

How many members are on your team, including you? *Only 1 team member is needed to register per team.*	2

Entry details

Are you associated with a NFTE partner?	No

Did you participate in a NFTE Innovation Day with your class, school, or organization?	No
How many students are on your team?	2
Team Member 1 Name	Tarun Batchu
Team Member 1 Email	tarunbatchuprof@gmail.com
Team Member 1 Age	17
Team Member 1 Gender	Male
Team Member 1 School/College (If currently not enrolled in school put N/A)	Olentangy Liberty High School
Team Member 1 Country	United States
Team Member 1: How would you describe your race, ethnicity, or cultural background? *(Select all that apply or choose 'Prefer not to answer.')*	✓ Asian / Asian descent (e.g., East Asian, South Asian, Southeast Asian)
Team Member 2 Name	Tony Li
Team Member 2 Email	tli252007@gmail.com
Team Member 2 Age	18
Team Member 2 Gender	Male
Team Member 2 School/College (If currently not enrolled in school put N/A)	Vanderbilt University
Team Member 2 Country	United States
Team Member 2: How would you describe your race, ethnicity, or cultural background? *(Select all that apply or choose 'Prefer not to answer.')*	✓ Asian / Asian descent (e.g., East Asian, South Asian, Southeast Asian)

What interests you most about this challenge?

> What interests us most about this challenge is its focus on redefining the relationship between people and artificial intelligence. For a significant portion of the global population, AI is still perceived as an opaque or even unsettling

force—powerful, invisible, and largely outside of human control. This challenge invites a different paradigm: designing AI systems that integrate seamlessly into everyday life while remaining understandable, adjustable, and accountable to the communities they affect. We see responsible AI not as something abstract or futuristic, but as something that should feel approachable, participatory, and human-centered.

We are particularly drawn to the challenge's emphasis on human agency within algorithmic systems. Today, many AI-driven platforms shape what people see, think about, and emotionally respond to without meaningful user input or oversight. By asking how AI and entrepreneurship can work together to empower individuals rather than quietly influence them, this challenge encourages solutions that place people back in the decision-making loop. We believe AI should respond to human values and preferences, not obscure them behind opaque optimization goals.

Another core interest lies in addressing polarization and social fragmentation. Many recommender systems are optimized for engagement, often amplifying sensational or divisive content because it retains attention. Over time, this design choice contributes to echo chambers, reduced exposure to diverse viewpoints, and increased social tension. This challenge recognizes that polarization is not an inevitable outcome of technology, but the result of specific design incentives. It opens the door to reimagining AI systems that reward understanding, context, and dialogue rather than outrage.

Equally compelling is the challenge's insistence on making responsible AI practical and scalable. Ethical guidelines and policy discussions are essential, but they must be translated into real products, interfaces, and business models to have meaningful impact. We are excited by the opportunity to explore how transparency, explainability, and user control can be embedded directly into AI-driven systems in ways that people actually use and trust. By combining entrepreneurship with responsible design, this challenge allows us to move beyond theory and toward deployable solutions that strengthen social cohesion, civic resilience, and informed participation—key pillars of peaceful and inclusive communities under SDG 16.

Who is experiencing the problem you are working to solve?

The problem we are working to solve is experienced most acutely by adolescents and young adults, particularly those between the ages of 13 and 25, who rely heavily on algorithmically curated social media platforms as their primary source of information, social connection, and civic awareness. This group includes high school students, college students, and first-time voters, many of whom are still developing their political identities, media literacy skills, and emotional regulation while being continuously exposed to engagement-optimized content feeds.

Research consistently shows that younger users are disproportionately affected by algorithmic amplification. According to the Pew Research Center, a majority of teens and young adults receive news "sometimes" or "often" from platforms like TikTok, Instagram, YouTube, and X, yet report low confidence in understanding how these platforms decide what content they see. This lack of transparency leaves users vulnerable to feedback loops that reinforce existing beliefs while gradually narrowing exposure to diverse perspectives.

This problem is especially pronounced among students from polarized or high-information environments, where political content is frequently sensationalized, emotionally charged, or framed in adversarial terms. Studies by organizations such as the American Psychological Association and Common Sense Media have linked prolonged exposure to outrage-driven or fear-based digital content with increased stress, anxiety, and feelings of helplessness among teens. Rather than encouraging critical engagement, many platforms inadvertently reward emotional escalation, making it difficult for young users to disengage without abandoning social media altogether.

Beyond individual mental health, this issue also affects civic participation and social cohesion. Young people often care deeply about social justice, climate change, and political accountability, but algorithmic filtering can distort how these issues are presented. Pew research indicates that while a large majority of Gen Z users value dialogue and fairness, many feel trapped in online spaces that prioritize conflict over understanding. This creates a paradox where users want to be informed and engaged, yet feel increasingly alienated by the tone and structure of digital discourse.

Importantly, this challenge is not limited to individual users. Educators, schools, and youth-serving organizations are also impacted, as they struggle to teach media literacy and civic reasoning in an environment where algorithmic

incentives undermine those goals. Teachers and administrators frequently report that classroom discussions are shaped by viral content students encounter online, often stripped of context or nuance. Without tools that allow users to meaningfully interact with algorithms, institutions are left reacting to downstream effects rather than addressing root causes.

We focus on this population because they are both highly affected and uniquely positioned to benefit from intervention. Young people are adaptable, curious, and motivated to improve their digital environments, but they currently lack mechanisms to exercise agency over the systems influencing them. By addressing the needs of adolescents and young adults—while supporting the educators and institutions around them—we aim to restore balance, transparency, and choice to the digital spaces where the next generation forms its understanding of the world.

What problem or need are you trying to solve for your customer?

We are addressing the growing lack of user agency, transparency, and balance in algorithmically curated digital spaces. Our customers—primarily adolescents and young adults—depend on social media platforms for news, social connection, and civic awareness, yet they have little control over how artificial intelligence systems shape what they see. Current recommender systems are optimized for engagement and retention, not for understanding, wellbeing, or social cohesion. As a result, users are often pulled into polarized content loops that amplify outrage, reinforce existing beliefs, and limit exposure to diverse perspectives.

The core problem is not that users seek extreme or divisive content, but that platform algorithms systematically prioritize emotionally charged material because it performs well under engagement-based metrics. Over time, this creates echo chambers that distort users' perception of reality, increase hostility toward opposing viewpoints, and contribute to stress, fatigue, and disengagement. Many users recognize these effects and express a desire for more balanced, constructive, or informative content, yet they lack any meaningful mechanism to influence or override the algorithms shaping their feeds.

This creates a critical unmet need: a way for users to actively govern their content environment without abandoning digital platforms altogether. Existing solutions force an unrealistic choice between total disengagement (deleting apps, blocking content, or limiting screen time) and passive acceptance of opaque algorithms. Neither option respects user autonomy. Our customers need tools that allow them to remain connected while setting intentional boundaries around what types of content they consume and how that content is presented.

Another dimension of this problem is the absence of transparency and explainability. Users rarely understand why certain posts are promoted, why specific topics dominate their feeds, or how their interactions reinforce future recommendations. This opacity erodes trust and makes AI feel like an uncontrollable or even manipulative force. Without visibility into algorithmic decision-making, users cannot develop informed media habits or critically engage with digital content.

Finally, the problem extends beyond individual experience to broader social consequences. Polarized digital environments weaken dialogue, undermine civic trust, and reduce opportunities for constructive engagement across differences. For young users in particular, whose political identities and worldviews are still forming, prolonged exposure to one-sided or sensationalized content can narrow understanding and discourage meaningful participation in democratic processes.

We aim to solve this problem by meeting a clear need: giving users practical, transparent, and adjustable control over algorithmic feeds. Our customers need AI systems that support reflection rather than reaction, dialogue rather than division, and choice rather than coercion. By reframing recommender systems as tools users can understand and shape, rather than forces they must endure, we seek to restore balance, trust, and agency in the digital public spaces where social and civic life increasingly unfolds.

What is your innovative idea to solve the problem, and how will it work?

Our innovative idea is DiaLog, a user-governed AI layer that sits between social media platforms and the user's feed, giving individuals direct, transparent control over how algorithmic content is shaped. Rather than replacing existing

platforms or censoring content, DiaLog reframes recommender systems as adjustable tools that users can understand, influence, and audit. The goal is to restore dialogue, reduce polarization, and return agency to users while allowing them to remain fully engaged in digital spaces.

DiaLog operates as a cross-platform personalization governor, integrating at the mobile OS, browser, or accessibility-service level. It does not scrape private data, intercept messages, or bypass platform security. Instead, it analyzes only the content that already appears on a user's screen. Each visible post or video is processed locally or through privacy-preserving inference using a suite of AI models, including natural language processing, sentiment and emotional intensity analysis, topic classification, and source credibility indexing. These models generate metadata about tone, topic, ideological framing, and informational value without storing personal identifiers.

At the core of DiaLog is a user-controlled diversity and balance engine. Users can set clear preferences for the composition of their feed—such as the proportion of confirming content, opposing viewpoints, neutral explainers, solutions-oriented media, or local community content. Rather than relying on binary filters or blunt content blocks, DiaLog uses a continuous control system that subtly reshapes what content is prioritized next. For example, it may deprioritize repetitive or highly inflammatory posts, slow autoplay on emotionally extreme content, or introduce paired perspectives that present contrasting views on the same issue side by side.

A key innovation is DiaLog's real-time micro-nudging framework. When users encounter sensational or polarizing content, the system offers lightweight, optional prompts such as alternative coverage from different sources, contextual fact sheets, or explanatory summaries. These nudges are non-intrusive and user-driven, designed to encourage reflection without disrupting normal scrolling behavior. Over time, reinforcement learning adapts recommendations based on how users respond to these options, aligning feed outcomes with stated preferences rather than raw engagement signals.

Transparency is embedded through DiaLog's explainability and logging features. Users can access a dashboard that visualizes their content diet over time, showing emotional tone, viewpoint diversity, and source balance. Each intervention—whether a promoted explainer or a delayed autoplay—can be inspected, allowing users to see why a decision was made and override it if desired. This "log" component transforms AI from an opaque force into an accountable system.

Finally, DiaLog is designed for scalability and responsible deployment. User-defined algorithmic preferences can be exported, shared, or applied across platforms, enabling portability and institutional use in schools, universities, and media literacy programs. By combining user governance, transparent AI, and behavioral design strategies, DiaLog demonstrates how entrepreneurship can operationalize responsible AI—creating digital environments that support understanding, autonomy, and social cohesion rather than division.

What makes your innovation different or better than existing solutions?

Our innovation is fundamentally different from existing solutions because it does not attempt to control content, police speech, or replace social media platforms. Instead, DiaLog introduces a user-governed AI layer that restores agency, transparency, and balance without requiring users to disengage from digital spaces. Most current approaches treat the harms of algorithmic feeds as problems to be mitigated after the fact; DiaLog addresses the root cause by changing how content is curated in the first place.

Existing solutions generally fall into four categories, each with significant limitations. First, content moderation and fact-checking tools focus on identifying misinformation or harmful content, often after it has already spread. While important, these tools are reactive, narrow in scope, and frequently perceived as censorial. DiaLog does not judge truth or remove content. Instead, it reshapes exposure patterns, ensuring users encounter context, diversity, and alternative perspectives before polarization takes hold.

Second, digital wellbeing tools—such as screen time limits, content blocking, or app restrictions—require users to disengage or self-censor. These approaches assume that healthier media use means less media use. In contrast, DiaLog recognizes that social platforms are central to modern communication and civic life. Our innovation allows users to stay connected while actively shaping the quality and balance of what they consume, offering a realistic alternative to digital abstinence.

Third, platform-level reforms and algorithm changes rely on companies voluntarily adjusting their recommender systems or complying with regulation. These efforts are slow, opaque, and often constrained by business incentives tied to engagement. DiaLog is platform-agnostic and user-driven. It operates independently of platform priorities, giving individuals control regardless of whether underlying algorithms change.

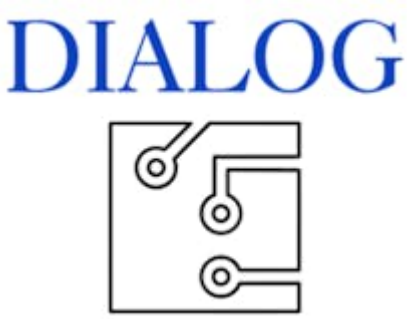
Finally, personalization tools that exist today optimize for relevance, not reflection. They refine feeds to show more of what users already engage with, reinforcing existing beliefs and emotional patterns. DiaLog inverts this logic. It allows users to define intentional goals—such as increased viewpoint diversity, reduced emotional volatility, or greater exposure to neutral explainers—and then enforces those goals through adaptive, explainable AI systems.

What makes DiaLog particularly innovative is the combination of governance, transparency, and behavioral design in a single system. Users do not just receive recommendations; they set the rules that guide them. Every intervention is logged, explainable, and adjustable, transforming AI from an invisible influence into a collaborative tool. Features like side-by-side contrasting content, real-time micro-nudges, and feed composition dashboards go beyond passive awareness and actively support healthier decision-making.

Additionally, DiaLog is designed for scalability and institutional adoption. Because preferences are portable and auditable, the system can be used in schools, universities, and media literacy programs without infringing on privacy or free expression. This makes it not only a consumer-facing innovation, but also a piece of civic infrastructure aligned with SDG 16.

In sum, DiaLog is better because it moves beyond content control and engagement optimization toward user autonomy, algorithmic accountability, and social cohesion—delivering responsible AI not as a restriction, but as an empowering, practical, and scalable solution.

Upload your logo representing your innovation!



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What type of group or funder would best fit to support your idea?

For-Profit Business

How would your solution remain sustainable?

Our solution remains sustainable by aligning financial viability, technical resilience, and social trust into a single, mutually reinforcing model. DiaLog is designed not as a one-time intervention, but as long-term digital infrastructure that evolves alongside platforms, users, and regulatory environments.

From a financial sustainability perspective, DiaLog operates under a diversified revenue model that avoids dependence on advertising or data extraction. Core revenue comes from subscription-based access for individual users, with additional enterprise licensing for schools, universities, journalism programs, and digital literacy organizations. These institutional partners already invest in tools that support civic education and student wellbeing, making DiaLog a natural fit within existing budgets. This recurring revenue structure supports continuous development, security audits, and responsible AI oversight without incentivizing engagement-maximization or behavioral manipulation.

Technically, DiaLog is built to be platform-agnostic and modular, which is essential for sustainability in a rapidly changing digital ecosystem. Rather than relying on fragile, platform-specific integrations, the system operates through OS-level services, browser extensions, and accessibility-layer interfaces that are more resilient to platform updates. Its AI components are modular and updatable, allowing individual models—such as sentiment analysis or topic classification—to be improved or replaced without rebuilding the entire system. Privacy-preserving design choices, including on-device inference where possible and minimal data retention, reduce infrastructure costs while strengthening long-term user trust.

DiaLog's sustainability also depends on user alignment and behavioral durability. Unlike tools that require constant active effort or self-control, DiaLog integrates seamlessly into normal scrolling behavior through subtle nudges and adaptive controls. Because users can set their own goals and see tangible improvements in feed balance and emotional tone over time, the system reinforces continued use through perceived value rather than habit formation alone. This reduces churn and ensures that sustainability is driven by utility, not addiction.

Social and ethical sustainability are equally central. DiaLog maintains trust by committing to transparency, explainability, and user governance. All algorithmic interventions are inspectable, adjustable, and overrideable, preventing the system from becoming another opaque influence layer. Users retain ownership over their preferences and can export or modify them at any time. This accountability framework is essential for sustaining legitimacy, especially as public scrutiny of AI systems increases.

Finally, DiaLog is designed to remain sustainable within evolving regulatory and societal expectations. Its alignment with emerging digital responsibility standards—such as algorithmic transparency, user consent, and harm reduction—positions it to adapt proactively rather than react defensively. By embedding responsible AI principles into its core business model, DiaLog ensures that ethical design is not a cost center, but a competitive advantage.

Together, these financial, technical, behavioral, and ethical foundations allow DiaLog to sustain itself over time—scaling responsibly, earning trust, and continuing to support healthier, more inclusive digital public spaces in line with SDG 16.

In one sentence, describe your business innovation.

DiaLog is a user-governed AI layer that reduces polarization and strengthens dialogue by transparently rebalancing social media algorithms toward diverse, contextual, and constructive content.

How did working on this challenge change how you see the world or how you approach problems?

Working on this challenge changed how we understand both artificial intelligence and the nature of complex social problems. Rather than viewing AI as a standalone tool that can be improved through better accuracy or performance, we began to see it as a form of invisible infrastructure—one that quietly shapes behavior, emotions, and public discourse at scale. This shift in perspective pushed us to focus less on individual features and more on the systems and incentives that guide technological outcomes.

We also learned that many of the harms associated with digital platforms are not the result of bad intentions, but of misaligned optimization goals. Polarization, outrage, and misinformation often emerge because algorithms are designed to maximize engagement, not understanding. This realization changed how we approach problem-solving. Instead of treating symptoms like toxic content or misinformation in isolation, we now ask deeper questions about what a system is optimizing for and who has the power to influence those priorities.

The challenge further reshaped our view of responsible innovation. We came to understand that ethical principles only matter when they are translated into practical, deployable solutions. Concepts such as transparency, accountability, and fairness must be embedded directly into product design, user experience, and business models to have real impact. This led us to prioritize solutions that are not only ethically sound, but also scalable, sustainable, and aligned with how people actually use technology.

Perhaps most importantly, working on this challenge reinforced the importance of human agency in AI-driven systems. We became more aware of how often users are positioned as passive recipients of algorithmic decisions. In

response, we now approach problems with a commitment to designing systems that treat people as active participants—capable of setting goals, making trade-offs, and understanding how technology affects them.

Overall, this challenge shifted our mindset from building technology that acts on people to designing systems that work with them, aligning technical innovation with human values and social responsibility.

What is one thing you would explore more in your idea if given more time?

If given more time, we would explore how user-defined algorithmic preferences can adapt responsibly over time without reinforcing new forms of bias or rigidity. While DiaLog is designed to give users direct control over how their feeds are shaped, long-term use raises important questions about how these preferences evolve as users' perspectives, emotional states, and informational needs change. Ensuring that autonomy remains empowering—rather than becoming another static constraint—is an area we see as both technically and ethically critical.

Specifically, we would focus on developing adaptive governance mechanisms that help users periodically reflect on and recalibrate their settings. For example, the system could surface gentle review moments that show how a user's content diet has shifted over time and invite them to reassess their goals. Rather than automatically optimizing for past behavior, DiaLog could support intentional change by offering scenario-based adjustments, such as temporarily increasing exposure to neutral explainers during major events or reducing emotional intensity during periods of digital fatigue.

We would also explore how collective and contextual signals could be integrated without compromising individual agency or privacy. This might include optional, anonymized insights showing how different communities balance their feeds or how educators and institutions set defaults for learning environments. Understanding how shared norms can inform, but not dictate, personal choices would help ensure DiaLog supports dialogue rather than replacing one set of algorithmic biases with another.

Another area for deeper exploration is longitudinal impact measurement. Given more time, we would conduct extended pilot studies to evaluate how sustained use of DiaLog affects polarization, emotional wellbeing, and civic engagement over months or years. This would involve refining metrics that go beyond engagement to capture changes in understanding, openness to diverse viewpoints, and perceived agency. These insights would allow us to continuously improve the system and validate its effectiveness in real-world contexts.

Ultimately, exploring how to balance adaptability, accountability, and user control over time would strengthen DiaLog's long-term impact. This work would ensure that responsible AI remains dynamic and responsive to human growth, rather than becoming another fixed system that users must conform to.

Why is contributing to this challenge important to YOU?

Contributing to this challenge is important to us because we believe that informed decision-making is deeply connected to cultural heritage, shared understanding, and dialogue—all of which are increasingly shaped by artificial intelligence. Culture is not only preserved through history or tradition, but through how societies discuss ideas, interpret information, and pass values across generations. Today, much of that process occurs in digital spaces governed by algorithms that influence what perspectives are seen, amplified, or ignored.

As AI-driven platforms become central to how people learn about the world, we have become concerned that engagement-optimized systems can unintentionally erode nuance, context, and thoughtful deliberation. When information environments reward outrage or oversimplification, individuals and communities lose the ability to make well-reasoned, educated choices. This challenge matters to us because it asks how AI can be designed to support reflection and understanding rather than distortion—an issue with real consequences for social cohesion and democratic resilience.

We are especially drawn to this challenge because it treats responsible AI as a design and entrepreneurship problem, not just an ethical ideal. Many discussions around AI focus on what should be avoided, but fewer explore how technology can be actively shaped to promote healthier outcomes. This challenge creates space to experiment

with practical solutions that embed transparency, user agency, and accountability directly into systems people already use.

Contributing to this challenge also reflects how we want to approach problem-solving more broadly. We are motivated by work that sits at the intersection of technology, society, and human values—where success is measured not only by technical performance, but by long-term impact on people and communities. Engaging with this challenge has reinforced the idea that AI should function as a collaborative tool that supports informed participation, not as an invisible force that narrows perspective.

Ultimately, contributing to this challenge allows us to work toward a vision of AI that respects cultural complexity, empowers individuals to make thoughtful decisions, and strengthens the conditions for constructive dialogue—outcomes that are essential for peaceful, inclusive, and resilient societies.

I have read and understand the participation agreement ✓

By checking this box, I acknowledge that I have carefully reviewed the NFTE AI Usage Guide and understand the following: ✓

Proper Use of AI: You agree to use AI tools and resources in accordance with the guidelines provided. This includes ensuring that any AI-generated content or assistance is used ethically and in alignment with the competition's rules.

Compliance with Competition Rules: You understand that the use of AI must adhere to the specific rules and requirements set forth for this competition. This includes not using AI to gain an unfair advantage or violate any aspects of the competition's integrity.

Responsibility for AI-Generated Content: You accept responsibility for any content or ideas generated with the aid of AI tools. This means ensuring that such content is original, properly attributed, and in compliance with intellectual property and plagiarism policies.

Understanding of Consequences: You are aware that failure to adhere to the AI use policy or competition rules may result in disqualification or other penalties as outlined in the competition guidelines.

By accepting this policy, you commit to using AI responsibly and in a manner that supports a fair and competitive environment for all participants.

Log in to wsi.awardsplatform.com to see complete entry attachments.