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Anchoring Ethical Technology (AI and data) Usage in the Education Practice

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Educating with Ethics: Visualizing Dilemmas of the Digital World

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This proposal is based on the conceptual framework of the Eth-Tech Perspective, which invites reflection on the relationship between ethics, technology and education from a critical, situated and transformative perspective. The main objective was to visualize the 10 key concepts of the framework in a series of illustrated cards that serve as pedagogical tools to facilitate dialogue, imagination and ethical action in educational contexts. Each card was designed as a symbolic scene that translates philosophical ideas into accessible visual metaphors. To achieve this, the artificial intelligence image generation tool PicLumen was used, combining precise prompts in English with an artistic approach that prioritizes cultural diversity, ecological connection, social justice and critical imagination. The creative process included a phase of deep reading of concepts, mental sketching, writing detailed prompts and multiple tests until a coherent aesthetic was achieved: digital, warm, poetic and critical. Each image was selected not only for its beauty, but for its ability to open up ethical and emotional questions. Special care was taken to ensure a diverse representation of bodies, cultures, ages and environments. These cards are intended to function as visual triggers in classrooms, workshops and educational spaces, where learning about technology also means imagining how to transform it.

The Ethical Conundrum

1. Planetary Ruins (Classroom in Ruins: Learning in the Footsteps of Progress)

This image represents the concept of Planetary Ruins, a critical metaphor that denounces the destructive effects of uncontrolled technological progress. The scene shows a modern classroom where children use artificial intelligence to learn about respect for the environment. However, the contradiction becomes visible through the window: outside the classroom, a landscape devastated by climate change, deforestation and ecological collapse unfolds. This representation underscores the paradox of teaching sustainability using tools whose indiscriminate production and use can contribute to the very deterioration we are trying to avoid. It invites reflection on the need for truly sustainable technologies, integrated with an ethic of planetary care.

A description of the creative process:

This image was created using a generative artificial intelligence tool (PicLumen). The goal was to visually illustrate the contrast between a seemingly advanced educational environment and the environmental consequences of the massive and unregulated use of technology.

It began by defining the ethical and visual approach: to depict a modern classroom with children using artificial intelligence to learn about ecology, but set within a deteriorated outside world. The following textual prompt adapted for AI was used:

> *"A digital illustration of a classroom full of children using artificial intelligence tools while learning about environmental care. Through the window, a devastated landscape is visible: deforestation, polluted skies, collapsed ecosystems. The contrast between the clean, high-tech interior and the ruined nature outside is stark and thought-provoking."*

The AI generated multiple versions of the image, from which the one that best captured the contradiction between ecological learning and visible environmental destruction was selected. This image seeks to trigger a critical reflection on how we use technology, even in educational contexts, and the urgency of aligning it with real sustainability principles.

2. Political power (Invisible Power: Who Controls Digital Education?)

The image explores the concept of political power in educational technology, revealing that decisions about which technologies are developed, regulated or implemented are not neutral. In many cases, economic and geopolitical interests profoundly influence what tools are offered to schools and how they are used. While on one side of the corporate world algorithms and contracts are negotiated, in the classroom students passively consume technologies decided by others. This power imbalance raises fundamental ethical questions about educational autonomy, justice and technological sovereignty.

A description of the creative process:

To visually represent this complex concept, the artificial intelligence image generation tool PicLumen was used. The image was designed from a detailed prompt that proposed a composition divided into two halves: a corporate boardroom and a school classroom, reflecting the tension between those who decide and those who use technology.

The prompt used was as follows:

> *"A conceptual digital illustration divided into two halves: on the left, a corporate boardroom with executives in suits making decisions about educational technology, surrounded by screens displaying algorithms, data charts, and contracts. On the right, a primary school classroom where children use digital tools, while a large invisible hand from above controls the devices. The background includes subtle symbols of political and economic influence like gears, money, satellites, and national flags."*

The AI generated several versions, and the one that best represented the visual metaphor of invisible power was selected. This process not only visualizes an ethical critique, but turns an abstract idea into an accessible and provocative educational tool.

3. Global Inequality (Two Worlds, One System: The Global Technology Gap)

This image visually represents global technological inequality, a phenomenon in which the benefits of innovation are concentrated in the countries of the Global North, while the negative impacts -such as the exploitation of natural resources, electronic waste and labor precariousness- fall on the Global South. Through a contrast between two halves - a rich and technified city versus an impoverished and polluted community - it shows how technological progress is neither neutral nor equitable. This visual card invites us to reflect on the need for a technoglobal justice that promotes a more ethical and supportive distribution of technologies and their consequences.

A description of the creative process:

The illustration was created using PicLumen, an artificial intelligence-based image generation tool. The main objective was to build a powerful visual metaphor for global technological and ecological inequality. To achieve this, a vertically divided composition was devised, in which the left side represents a city of the Global North with high levels of technological development, while the right side shows an impoverished environment of the Global South affected by waste and technological exploitation.

The prompt used was:

> *"A high-contrast digital illustration divided vertically into two scenes. On the left, a clean, high-tech city of the Global North: skyscrapers, people using advanced technologies (VR, robotics, AI), and a bright, blue sky. On the right, a dusty, impoverished Global South community: children scavenging e-waste, open-pit mines, broken electronics, and grey polluted skies. Strong visual contrast to highlight technological injustice and environmental exploitation."*

PicLumen generated several versions, from which the one that best conveyed the emotional and ethical contrast was chosen. The process sought not only a striking aesthetic, but also a critical pedagogical tool to question the unequal structure of the global technological system.

4. Addiction/Dependency (Connected and Chained: The Digital Addiction Trap)

This image represents the emotional and existential impact of technological dependence, particularly in young people. Many technologies are designed to maximize usage time through constant stimuli and addictive mechanisms, such as social networks or video games. This invisible addiction can lead to isolation, loss of meaningful relationships, sleep disturbances and neglect of self-care. The illustration translates these effects into visual symbols: wires that bind the body, physical disorder and digital eyes that watch. The purpose is to invite ethical reflection on how these technologies are designed and at what human and social cost.

A description of the creative process:

The image was created with PicLumen, an artificial intelligence-based digital art generation tool. The creative approach was to build a scene loaded with emotional symbolism, which would allow visualizing the inner experience of technological addiction. A surreal and somber aesthetic was chosen to emphasize the contrast between the artificial light of the device and the emotional darkness surrounding the character.

The prompt used was as follows:

> *"A dark and symbolic digital illustration of a young person sitting alone in a messy room, staring at a glowing smartphone. Blue light from the screen illuminates their face. Cables or tentacles emerge from the phone and wrap around their body, symbolizing addiction and loss of freedom. Around them: fast food, broken clocks, ignored messages, and fallen family photos, representing neglect and isolation. The walls are covered with social media icons that resemble watching eyes."*

Multiple versions were generated and the one that best expressed the tension between digital connection and emotional disconnection was selected. The process sought not only visual impact, but to provoke empathy and critical awareness, especially among students and teachers.

5. Bias/Discrimination (Algorithms that Decide, Data that Discriminate)

Technology is not neutral. Algorithms, especially in artificial intelligence, can reproduce and amplify existing biases in society if they are trained with biased or poorly contextualized data. This image represents a dystopia that is not so far from our reality: a seemingly “objective” AI that discriminates against people based on their race, class or gender. Although automatic systems appear cold and precise, their decisions can be profoundly unjust if they are not designed with an ethical conscience. This visual proposal denounces how the technical can cover up the ethically problematic, and invites us to question who programs, with what data and with what values.

A description of the creative process:

This illustration was generated with PicLumen, using a symbolic narrative approach to represent the effects of algorithmic bias. A futuristic scene was designed in an AI control room, with a dystopian aesthetic that emphasizes the coldness of automated systems. Diverse people - in gender, race and class - are lined up in front of a central machine that decides their fate: some are approved with green lights, while others are marked with red and rejection symbols.

The background includes screens with distorted databases and visible errors, evidence that the data is far from objective. An ironic sign reading “Objective data” reinforces the visual critique. A dark, symbolic digital style was selected to provoke an emotional reaction and critical reflection.

Prompt used in PicLumen (in English to optimize generation):

> *“Futuristic digital art of a control room where an AI algorithm evaluates people of diverse race, gender and social background. The AI machine approves white, wealthy-looking individuals in suits with green lights, and rejects others with red marks or warning symbols. Background screens show distorted faces, corrupted datasets, and biased code. A sign above reads 'Objective Data' in an ironic tone.”*

Multiple iterations were generated, and the one that best managed to represent the invisible injustice of systems that present themselves as unbiased was chosen. This card seeks to open up ethical debate in educational contexts about fair and responsible technology design.

6. Cultural Impoverishment (Under the Shadow of the Screen)

Cultural impoverishment occurs when technology, instead of enriching diversity, imposes a dominant and homogeneous culture on a global scale. This image illustrates how globalized digital content - such as brands, social networks or mass entertainment - can displace local knowledge, traditions and diverse ways of life. Under an omnipresent screen that dominates the sky, unique cultural symbols slowly fade away, giving way to a uniform culture based on digital consumption. This illustration denounces the risk of losing the plurality that gives meaning to human communities. Technological ethics must serve to protect and make these differences visible, not to erase them.

A description of the creative process:

The image was created with the AI image generation tool PicLumen, based on a symbolic and critical visual approach. A composition was proposed where the sky, normally linked to the spiritual or natural, is covered by a gigantic digital screen that projects images of global advertising, social networks and universal influencers. This screen generates a sense of cultural oppression.

Below, in a village of traditional aesthetics, appear people from different cultures (such as indigenous people, artisans or peasants) who observe the projection with uneasiness. Their cultural elements - clothing, books, instruments - fade away or are replaced by standardized technological devices. In addition, temples, markets and community squares are replaced by shopping malls and signal towers.

Prompt used in PicLumen:

> *"Conceptual digital art. A massive digital screen dominates the sky over a traditional village. The screen displays globalized content: social media icons, brands, influencers. Below, people from diverse cultures (indigenous, rural, artisans) look up in confusion, while their traditional clothing, books, and tools fade away, replaced by identical tech devices. Background changes from temples and markets to shopping malls and signal towers. High contrast between traditional colors and cold digital light."*

Variations were made to balance detail and symbolism. This image is intended to generate discussion in classrooms and educational spaces about the role of technology in the preservation (or erosion) of global cultural diversity.

7. Ethics as Critical Inquiry (Ethical flashlight: exploring paths to the future)

Ethics as critical inquiry implies not only rational analysis, but also affective responsibility and a transformative vision of the present and future. This image depicts a human figure holding a lantern, illuminating a path with technological forks that symbolize possible futures. On one side is a dark future, marked by pollution, surveillance and inequality; on the other, a hopeful future with regenerated nature, collaboration and sustainable technologies. The lantern symbolizes the ethics that reveal dilemmas and consequences, allowing for responsible choices. Around it, symbols of care and thinking tools reinforce the importance of projecting technologies oriented towards the common good, sustainability and hope, underlining the need for active ethics to guide our decisions.

A description of the creative process:

The image was created using the AI image generation tool PicLumen, focusing on a symbolic and philosophical composition. A central figure, which could be a teacher, young person or scientist, was designed to represent the ethical conscience that guides technological decision making. The lantern projects light on a path divided in two, representing possible futures with contrasting tones and elements: one somber and the other hopeful. Around the figure, visual icons such as hands, trees, connected people, books and circuits were incorporated, symbolizing care, reflection and responsibility.

The prompt was crafted to balance symbolism with a hopeful, futuristic style, using contrasts of light and color to highlight the duality of ethical choices in technology. Variations of the prompt were tested to adjust the level of detail and emphasize the reflective and optimistic atmosphere.

Prompt used in PicLumen:

> *"Symbolic digital art, a human figure (teacher, young person, or scientist) holding a lantern that illuminates a technological path with bifurcations. On one side, a dark future with pollution, mass surveillance, inequality; on the other, a hopeful future with regenerated nature, human collaboration, and sustainable technologies. Around the figure, floating symbols of care (hands, trees, connected people) and thinking tools (books, gears, circuits)."*

This illustration seeks to encourage debate on technological ethics and the importance of imagining responsible and transformative futures in educational contexts.

8. Mediation, Co-design, Contextualisation (Hands United in Designing the Future)

This illustration depicts technology co-design as a collective and inclusive process, where people of different ages, cultures and roles actively collaborate to create technologies that respond to their real needs and specific contexts. The scene shows a diverse circle - peasants, engineers, designers, youth and elders - prototyping a technological tool at a common table. All around, varied landscapes such as jungle, city, mountain and sea symbolize the importance of contextualization, reminding us that technology is not universal, but must adapt to cultural and environmental diversity. Luminous lines connecting hands, objects and environment illustrate technological mediation, showing how these tools transform and mediate our relationships with the world and with each other. The image highlights dialogue, respect and collaboration as the basis for responsible and socially just technological development.

A description of the creative process:

For this image, PicLumen, an AI digital art generation tool, was used to create a vibrant and symbolic composition that reflects collaboration, diversity and connection between people and environments. The visual focus is a diverse human circle working on a technological prototype, expressing the practice of co-design. The integration of multiple landscapes around it represents contextualization, while luminous lines connect key elements to symbolize technological mediation.

The prompt was carefully designed to emphasize warm colors, expressions of respectful dialogue and an atmosphere of working together, striking a balance between realism and symbolism. Adjustments were made to highlight cultural diversity and the positive interaction between social actors and nature. This image aims to inspire reflections on participatory and ethical methodologies in technological creation, promoting inclusion and care for the environment.

Prompt used in PicLumen:

> *"Vibrant digital art of diverse people (farmers, engineers, designers, youth, elders) sitting in a circle around a table prototyping technology (app, agricultural tool, educational device). Surrounding landscapes include jungle, city, mountain, and sea, symbolizing contextualization. Glowing lines connect hands, objects, and environment, representing technology mediating relationships."*

9. Ethics as care (Life-Sustaining Connections)

This image represents ethics as care, a perspective that goes beyond abstract reasoning to emphasize sensitive, relational attention committed to the well-being of people and the planet. The central figure, designer of a technology integrated with natural elements, symbolizes connection and co-responsibility with the community and the environment. All around, diverse people - children, the elderly, people with disabilities - together with natural elements such as trees and animals, illustrate the possible harmony between innovation and life. The roots emerging from their hands symbolize the interconnectedness and ethical care that should guide technological development. The image seeks to make visible the empathy, justice and collective responsibility needed to create technologies that protect the vulnerable and sustain just relationships with nature.

A description of the creative process:

The image was created using the AI digital art generation tool PicLumen. The visual approach sought to convey a warm and poetic atmosphere, with soft natural tones that evoke serenity and connection. The composition places a central, attentive and sensitive person designing an organically integrated technology, surrounded by a diverse community and elements of the natural environment that reinforce the message of care.

To represent ethics as care, symbols such as roots connecting hands and earth were integrated, as well as flashes of soft light on faces to express empathy and stewardship. The prompt was designed to emphasize the relationship between technology, community and nature, with a warm and human digital style. Adjustments were made to balance symbolism and emotional expressiveness, achieving a visual impact that invites reflection on ethics committed to life and the planet.

Prompt used in PicLumen:

> *"Warm and poetic digital art of a person designing technology integrated with organic elements, surrounded by a diverse community (children, elders, people with disabilities) and natural environment (trees, animals, rivers). The person's hands extend roots connecting to others and the earth, symbolizing ethical care. Soft natural tones, gentle light glows on faces expressing empathy and responsibility. Emphasis on harmony between innovation, people, and nature."*

10. Future Imagination (Ethical Imaginaries for Possible Futures)

This illustration represents the capacity of technological ethics to imagine diverse and sustainable futures, beyond technical inevitability. A diverse group of people - scientists, artists, youth, elders and indigenous communities - gather in a creative circle, projecting with holographic light different desirable scenarios: ecological cities integrated with nature, fair global knowledge networks and technologies that repair the environment. The image symbolizes ethical imagination as a tool for questioning the present and designing alternative paths towards a more just, ecological and communitarian coexistence. The starry sky with constellations that form symbols of justice and sustainability invites us to think of an open and hopeful future, where technology accompanies the care of the planet and people.

A description of the creative process:

For this image, I used the AI image generation tool PicLumen, orienting the composition towards a symbolic and dreamlike scene that highlights collaboration and diversity. The focus was on depicting a circle of heterogeneous people projecting possible futures with holograms of glowing light, expressing creativity and hope. I incorporated elements such as blueprints, seeds, books and circuits to show the connection between traditional and technological knowledge. The starry background was designed to suggest imagination and the infinite potential of ethics applied to technology.

The prompt in English was:

> *"Dreamlike digital art. A diverse group of people (scientists, artists, youth, elders, indigenous communities) sitting in a creative circle projecting holographic light showing three futuristic paths: an ecological city integrated with nature, a fair global knowledge network, and reparative technology for the environment. Starry sky with constellations symbolizing justice, sustainability, and community."*

I made adjustments to detail and luminosity to balance symbolism and visual clarity. This image seeks to inspire dialogues about how ethics can shape more humane and sustainable technological futures.