

FUTURX



LARROSA

AI + MUSIC

CONTEXT + USES + ETHICS:

**Artificial Intelligence in
Music Ecosystems**

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AI+MUSIC

CONTEXT + USES + ETHICS

Artificial Intelligence in
Music Ecosystems

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INTRODUCTION

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What is Artificial Intelligence?

**What does it mean to talk about
generative AI?**



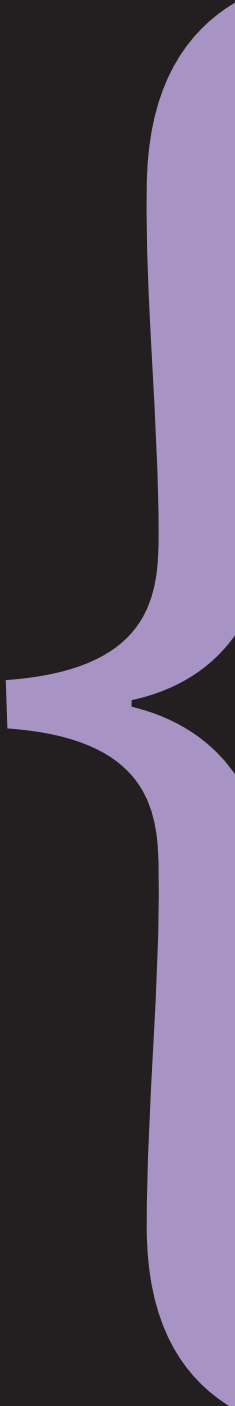
Artificial Intelligence, henceforth **AI**, is a broad **Computer Science** field that, **including theories and methodologies appropriate to each of its branches, creates systems capable of performing tasks related to human intelligence.**

In other words, we can speak of the imitation of our cognitive activity.



Generative AI, henceforth **GAI**, refers to a subfield of AI that focuses on creating models and systems capable of generating new and original content, such as images, music, text and even video, that resemble human creations. These systems use techniques such as generative neural networks (GANs), generative language models and other approaches to learn patterns in data sets and produce results that did not exist previously.

*Thinking about the link between
AI and music
requires understanding*



- the moment and the

CONTEXT

we inhabit

- the various possible

USES

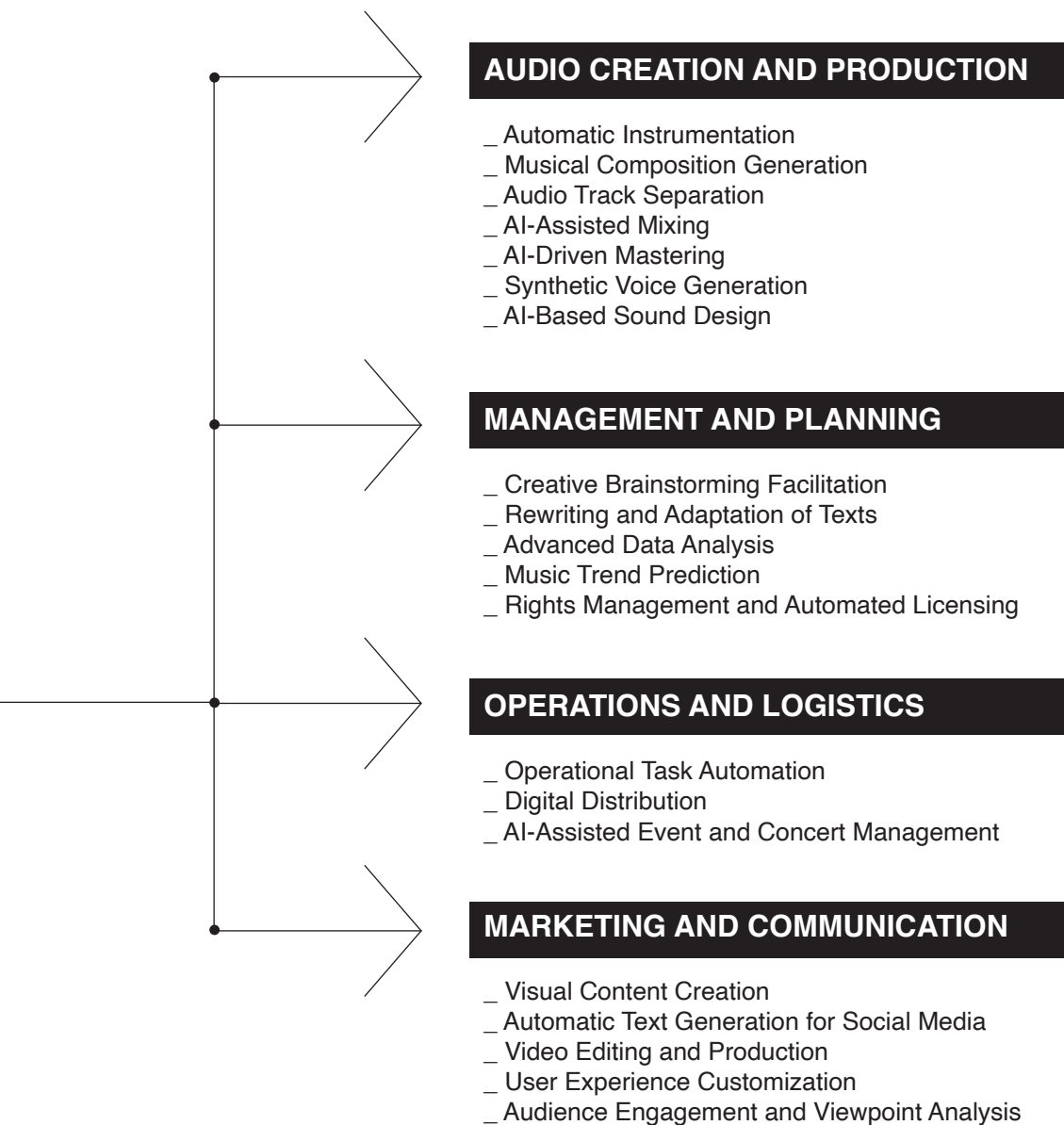
- and the

ETHICAL and LEGAL

implications that these tools raise and highlight

AI AND MUSIC DO NOT ONLY INTERSECT IN AUDIO PROCESSING.

AI is a part of various digital processes that range from the creation, manage-ment and operations of a music project to marketing and communications



Why do Emerging Technologies, Such as Web3 or AI, and Their Crossover with Music Capture Our Interest?

By Nicolás Madoery

AI-generated profile pictures already feel *cringe*. Yet, they're part of the hype as well and these *hype* trends arise around each new technology that becomes trendy. With AI, there's two clear theories related to the technological advancement:

It allows us to speed up processes, which means saving time (the same time that is then taken away from us when we are stuck scrolling social media),

It raises new creation and consumption dynamics, which translates into new possibilities of interaction and monetization for different projects, be it for artists, labels, festivals, etc.

Each change can be overwhelming. It fills us with Anglo terminology that determines whether we are *IN* or *OUT*: "socially updated." In this context, three points appear that are necessary to consider when thinking about a #musicandtechnology crossover:

1. Knowing the Tools (Understanding Them): Technology empowers us. It allows us to do things in new ways. Tools are the means for us to reach new places.

2. Debunking Myths: It is essential to move away from misunderstandings and focus on the real tensions and dynamics that each interaction entails. I can't go by the information found in mass media and jump to conclusions just like my uncle does.

3. Generating a Critical Vision: The two previous points are the ticket to arrive at this one: A critical vision must be the goal. We achieve it by knowing and demystifying but also by discussing. It is important to adapt to technological advances, which is fundamental to actively influence the construction of digital paradigms and the near future.

I have always been driven to understand **how technology can help music reach new horizons and go further. IT CAN? CAN IT?**

I CHOOSE TO BELIEVE.

FUTURX's mission not only has to do with finding answers to this question. It also aims to provide evidence and enable different ways to get involved in the face of this mobilization and the new scenarios that continuously unfold. When in doubt, FUTURX proposes to organize knowledge and build community.

It must also be said that every technological advancement pushes a loop of seemingly endless debates, and, eventually, both the novelty and the debate run out ever quicker. An overview of this loop:

The social/ecosystem debate on the past-present-future of formats (vinyl-CD-MP3-streaming): What will happen to the old format? Are we going to run out of jobs? Is music losing quality? Is the experience getting better or worse?

The feeling of democratization that makes everyone celebrate that “this time music will be democratized” and that “at last, new independent creators will be able to access the place they deserve.” The truth is that, while the costs of creation and production are lowered, the digital gap continues, however, this does make it possible for many new people to generate and distribute content. YouTube is the ultimate example.

The mainstream is reluctant, and in many cases angry, looking the other way like the John Travolta's meme from *Pulp Fiction*. They are looking for someone responsible for not warning them about the situation and for not having the answer. For example: Do you remember when CDs became so easy to burn at home that anyone could download their music and have it on a CD easily?

A boom of startups that do not know culture, a technology industry proudly showing off its new capabilities. For example, improving compression or audio transfer speed but not necessarily being interested in what happens around its uses.

Now, what did I learn from this loop?:

Building audience in “Web2” paradigms. The dynamics of today's “traditional” platforms are a competition to capture the attention of the algorithms with rules imposed by each platform and, above all, to focus on vanity metrics over real loyalty. This does not detract from the fact that these platforms are equally necessary, they are “our mass media” of consumption.

Building alternatives and parallel channels becomes fundamental. One possible way to achieve this is the exploration of new technological and digital paradigms that can contribute to the development of music ecosystems in a sustainable way.

The questions raised by GAI are not new. The debates around Web3 are not about the Internet we inhabit today being broken. Nor are they about the tensions between cultural content and technology. Simply, and not insignificant, these questions are enhanced to levels that we have never experienced before. And this is important.

It is for this reason that the need for this text has to do with the urgency of putting the issue on the table, reading voices that today are building or thinking about these questions and providing tools to be able to discuss each of these tensions with a little more data than our uncles. It has to do with the idea of becoming critical, taking away the fear and appropriating, experimenting and playing with new tools. It is an opportunity to break with standardizations and generate unique, different things.

Are you up for it or what?

The Coexistence Between the Human and the Digital

By **Cristian Larrosa**

In society's current landscape and its relationship with technologies and art, I see the irruption of AI in our industry not only as a fascinating phenomenon but also as a minefield of ethical and creative dilemmas. AI is taking us down uncharted paths, where the ease of revitalizing processes meets the imperative need to keep the flame of originality and passion alive.

In my perspective, which is nurtured by my artistic nature as a composer, producer and entrepreneur of music, finance and technology, the challenge lies not in opposing this technological wave but in learning to navigate it. The goal should be to find that delicate balance between mechanical efficiency and human essence that gives life to different artistic expressions. I believe in technology, and I recognize that its progress, nowadays, is increasingly accelerated, which creates a gap between those of us who keep up with it and those who reject it, either because of particular fears or because of the fear itself of the unknown. It is there, in that gap, that we need to establish a more inclusive roadmap.

I observe with some skepticism how, especially in social media, with its maelstrom of instant attention, the rules of the game have been altered, making, at times, images and the ability to generate viral content and attract attention things that surpass talent and artistic depth. I can't help but wonder where the soul is in all this. Music, in its purest expression, is emotion, a shared humanity; and therein lies the real challenge of the accelerated technological evolution that we live in: Using tools to amplify our ability to feel and connect and not to displace this.

Today's consumption has changed drastically. Everything is faster, synthetic and ephemeral. A creator can question how much soul they need to materialize and see their projects grow. New technologies have a lot to do with this approach. Between the organic and the synthetic is where we can find technologies as tools and not as something that can replace us. From there, there can be an increase in motivation and initiative, which starts to build a more efficient industry for both consumers and creators.

In part, this can be achieved by using all technologies more efficiently for certain complex processes, as has already happened so many times in the music industry (an industry that is often not understood by its own players).

A specific example: Access to the music market was democratized through digital distributors, but the music industry business model is still denied to these artists. Thus, implementing technologies such as blockchain, where traceability and transparency propose a fairer scenario for creators, would be the right thing to do. However, all interests are still not aligned.

Imagine a world where every note, every chord, resonates in an ecosystem that values both the creator and the consumer, where copyright is not a labyrinth of injustice but a bridge to a true appreciation of art.

In this future, technology is not an adversary, it is an ally in our quest for structural change. This is the challenge. And with training, curiosity, collaborative and proactive spirits, through more comprehensive actions, we can transform the industry and make the human and the digital play in unison.

AI: A Question Factory

By Àngel Mestres

What am I looking for in this book, what do I ask of it? My vision as a cultural worker outside the realms of music leads me to read it in search of answers within the fertile and interdisciplinary discussions between scientists, technologists, philosophers, legislators and other stakeholders in order to address the complex questions that AI poses to me on an ethical, social and existential level. And the truth is that I have several questions.

Through cultural management, **how can managers use AI to foster democratic participation in content creation and curation, aligning ourselves with principles of fairness and equity? Can cultural management anticipate and adapt to the possible futures that AI might create? How might this be possible? What steps can we take to ensure that AI does not perpetuate existing biases or intensify cultural and social inequalities? Can we ensure that the use of AI does not monopolize or homogenize cultural production and distribution, i.e., how do we maintain a diversity of ideas and expressions? In what ways can we employ AI to enhance human creativity and expression about the evolving potential of living with technology? What strategies will we propose, what conversations will we open, what risks will we take to ensure that ethical reflection on AI becomes an integral part of popular culture? In other words, what plan do we have as a means of preparing humanity for the challenges of the future?**

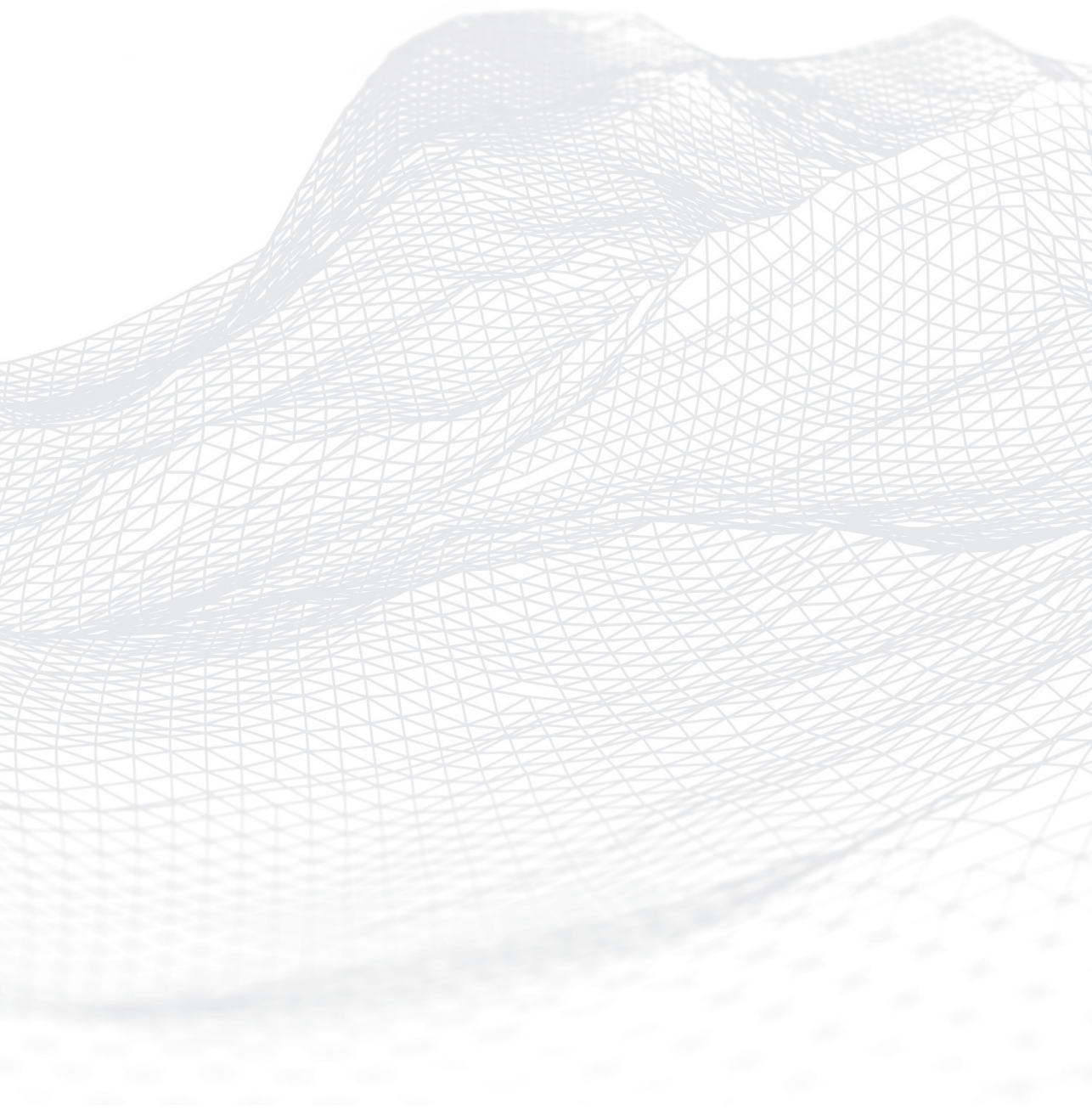
From there, the above questions branch out and bring in other satellite questions: **How can we use the data economy to understand and improve public participation? What are the risks of privatizing cultural data and how can we ensure equity in access to this data? How can AI contribute to the creation of sustainable business models based on data analytics? What are the plans that each of the communities affected by the implementation of AI have to maintain autonomy in an environment increasingly dominated by these systems?**

Socially, we must ask how AI can be designed and implemented to reflect and respect the cultural and political diversity of society in line with inclusion. **How are we going to use it to foster intercultural and political dialogue, critical thinking and reflection?** This is essential to prevent its use from reinforcing the user's pre-existing preferences and only contributing to perpetuate a cycle of superficial cultural consumption.

It is important to include the educational community, the institutional field, in this scenario. So **how can these cultural programs and exhibitions be designed to help the public understand and participate in decision making about future AI developments? Can cultural institutions use AI to resist the influence of big technologies that seek to control patterns of cultural consumption and production, how? How can cultural institutions implement AI practices that promote transparency and informed consent, avoiding the pitfalls of surveillance capitalism?** A cultural institution should be able to approach this book with a holistic view (all the texts include it) of how its work will mutate. I can make this reference because many of the questions that I share with you have found answers or paths to resolution during the reading of these pages.

So, I leave you to choose between a blue pill (and ask new questions about AI and live quietly) and a red one (and think the whys, because if AI brings a change to our lives, **what is it that led us to create it?**).

Welcome to AI+Music.



DISCLAIMERS

Reading Notes

● Ecosystem

The music industry is diverse, multi-layered. Starting from this idea and trying to reflect the dimension of its ecosystem to offer a transversal vision of the impact of AI on music, these pages bring together the diversity of roles and perspectives told by musicians, researchers, producers, managers and record labels, among other driving voices of the industry.

● Impact

Although we understand current technologies, we know that it is still premature to foresee the long-term impact that AI may have on society. Therefore, we do not intend to offer definitive conclusions, but rather to explore possibilities and stimulate critical reflection.

● Debate

Process acceleration technologies expose, and sometimes amplify, social, cultural and economic issues. Any judgment on these technologies must be the product of informed and pluralistic debates. Our study seeks to contribute to these debates with a special focus on the musical and cultural ecosystems of Latin America.

● Ethics

We recognize that there are a variety of biases inherent to the data sources used by AI models, which makes us confront distinct ethical, legal and social challenges. We attempt to address some of these challenges; however, the discussion is not exhaustive. The conversation remains open and will require revisions and new readings at the pace of its own development and impact.

● Collaborative Process

This publication is the result of a fundamental work that took place hand in hand with our subscribers. For the digital report *AI+Music in LATAM*, the FUTURX Community participated in an active conversation that involved many hours of work and collective thinking. These exchanges built a solid base of knowledge, views and impressions that paved the way for us to not only recognize but also to reach new understandings around the issues and challenges that AI brings. Togetherness is strength; the strength of togetherness makes community and community ignites culture.

● Methodology

AI+Music in LATAM is the result of different research processes, dialogues and networking, ranging from surveys and creative experiments to interviews with experts and specific focus groups. In addition, we relied on AI tools, such as ChatGPT, to address certain analyses. This methodological diversity allowed us to reflect on the complexity of the topic and provide valuable insights.

Is Artificial Intelligence the revolution that will save the music industry from its own obsolescence or is it the death sentence for human creativity?



Spoiler:
*Neither one nor the other,
we exit the maze from above.*

CHAPTERS

This question may seem extreme, but we admit that it is the extreme that usually appears in discussions around AI. Sooner rather than later, and perhaps more on the surface than in depth, there is a moment when the discussion reaches that crossroads that errs on the side of absolutism. This technology has several particularities, and one of them is that it is very **complex to tackle as a WHOLE**. Another particularity is that **it requires us to see with new eyes and encourages us to take a certain distance from those areas of thought and creation that we consider safe**.

Knowing this, and in order not to get lost in the untackable, our path is projected through three central axes:



CONTEXT

To understand basic concepts around AI, raise existing tensions and disentangle certain ideas around the polarization it brings.

USES

To segment the different capabilities and models presented by various tools and, with key examples and insights, begin to experiment.

LEGAL AND ETHICS

To address the emerging dilemmas and discussions surrounding AI and to familiarize ourselves with the concepts that come with it, such as deepfakes and cloning.