QUICKSCAN - CANVAS

AJ-Assist (Artificial Jockey Assistant)

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DATE: July 1, 2025 2:58 PM

DESCRIPTION OF TECHNOLOGY
AJ-Assist is an AI-driven tool designed for live audiovisual performers. It analyzes live music input to detect features like tempo, genre, and mood, and uses this information to generate real-time, dynamic visual suggestions. Through the integration of music analysis and AI-based image generation, AJ-Assist empowers VJs to create responsive and immersive visual experiences while maintaining full creative control.

HUMAN VALUES

AJ-Assist empowers VJs by enhancing their creative control and performance confidence. It introduces new ways of interacting with music, offering AI-generated visual suggestions in real time. Rather than replacing the VJs artistic role, it supports and expands it. The technology aligns with a performers identity as a creative and improvisational artist, without being stigmatizing or imposing.

TRANSPARENCY

At this stage, the technology is still in development and does not have a finalized business model. However, transparency is a key goal. The user interface will clearly explain how the music analysis affects visual generation, and users (e.g., VJs) will be able to see and adjust the AIs suggestions. The system will provide insight into which musical features influenced the visual output (e.g., tempo, genre).

IMPACT ON SOCIETY

AJ-Assist tackles the challenge VJs face during unprepared, improvised performances: creating dynamic visuals that match the music without prior setup. Reacting live to unpredictable changes in tempo, genre or mood is mentally demanding and often leads to repetitive visuals. This tool eases that pressure by analyzing music in real time and suggesting fitting visuals, while keeping the VJ in creative control.

STAKEHOLDERS

- VJs and audiovisual performers
- Event organizers / venues
- Audience
- Developers / designers of the tool
- Music producers / DJs

SUSTAINABILITY

The technology currently relies on real-time audio analysis and image generation. These processes require significant computational resources, particularly for the visual output. Most of the processing is done locally, which avoids constant cloud usage but still depends on the capabilities of relatively powerful hardware.

HATEFUL AND CRIMINAL ACTORS

Although AJ-Assist is intended for artistic use, the system could be misused to generate offensive, misleading, or disturbing visuals in public or online performances. If not properly curated, visuals might unintentionally spread harmful content. The technology could also be exploited to mimic copyrighted visual styles or content without proper attribution.

DATA

The technology takes this into account by: 1) Treating genre and mood classification as probabilistic, not absolute, since music is culturally subjective and often hybrid in nature. 2) Avoiding over-reliance on single data points by using multiple features (tempo, timbre, rhythm) for visual generation. 3) Acknowledging bias in training datasets (e.g., genre models might be Western-centric), and planning to include human-in-the-loop design to retain artistic control.

FUTURE

In the future, as the technology scales and becomes more widely adopted, it could transform live performance cultures. With AI-generated visuals becoming more accessible and accurate, VJs and performers may rely more on automated systems to assist with real-time music-to-visual synchronization, potentially reducing the need for extensive preparation and creative input.

PRIVACY

AJ-Assist does not collect personal data, as it only analyzes audio input for musical features. No identifying information is required or stored.

INCLUSIVITY

Yes, this technology likely contains built-in biases. The music analysis models (e.g., Essentia) and generative models (e.g., Stable Diffusion via StreamDiffusion) are trained on datasets that may reflect Western music norms and aesthetic preferences. This can lead to genre classifications or visual outputs that do not fairly represent non-Western or experimental music styles.

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HUMAN VALUES

How is the identity of the (intended) users affected by the technology?

To help you answer this question think about sub questions like:

- If two friends use your product, how could it enhance or detract from their relationship?
- Does your product create new ways for people to interact?…

TRANSPARENCY

Is it explained to the users/stakeholders how the technology works and how the business model works?

- Is it easy for users to find out how the technology works?
- Can a user understand or find out why your technology behaves in a certain way?
- Are the goals explained?
- Is the idea of the technology explained?
- Is the technology company transparent about the way their…

IMPACT ON SOCIETY

What is exactly the problem? Is it really a problem? Are you sure?

Can you exactly define what the challenge is? What problem (what 'pain') does this technology want to solve? Can you make a clear definition of the problem? What 'pain' does this technology want to ease? Whose pain? Is it really a problem? For who? Will solving the problem make the world better? Are you sure? The problem definition will help you to determine…

STAKEHOLDERS

Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by…

When thinking about the stakeholders, the most obvious one are of course the intended users, so start there. Next, list the stakeholders that are directly affected. Listing the users and directly affected stakeholders also gives an impression of the intended context of the technology.
…

SUSTAINABILITY

In what way is the direct and indirect energy use of this technology taken into account?

One of the most prominent impacts on sustainability is energy efficiency. Consider what service you want this technology to provide and how this could be achieved with a minimal use of energy. Are improvements possible?

HATEFUL AND CRIMINAL ACTORS

In which way can the technology be used to break the law or avoid the consequences of breaking the law?

Can you imagine ways that the technology can or will be used to break the law? Think about invading someone's privacy. Spying. Hurting people. Harassment. Steal things. Fraud/ identity theft and so on. Or will people use the technology to avoid facing the consequences of breaking the law (using trackers to evade speed radars or using bitcoins to launder…

DATA

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into…

There are fundamental issues with data. For example:

- Data is always subjective;
- Data collections are never complete;
- Correlation and causation are tricky concepts;
- Data collections are often biased;…

FUTURE

What could possibly happen with this technology in the future?

Discuss this quickly and note your first thoughts here. Think about what happens when 100 million people use your product. How could communities, habits and norms change?

PRIVACY

Does the technology register personal data? If yes, what personal data?

If this technology registers personal data you have to be aware of privacy legislation and the concept of privacy. Think hard about this question. Remember: personal data can be interpreted in a broad way. Maybe this technology does not collect personal data, but can be used to assemble personal data. If the technology collects special personal data (like…

INCLUSIVITY

Does this technology have a built-in bias?

Do a brainstorm. Can you find a built-in bias in this technology? Maybe because of the way the data was collected, either by personal bias, historical bias, political bias or a lack of diversity in the people responsible for the design of the technology? How do you know this is not the case? Be critical. Be aware of your own biases.…

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