Streambelt

for

VOLVO

A concept for Future Lions 2023

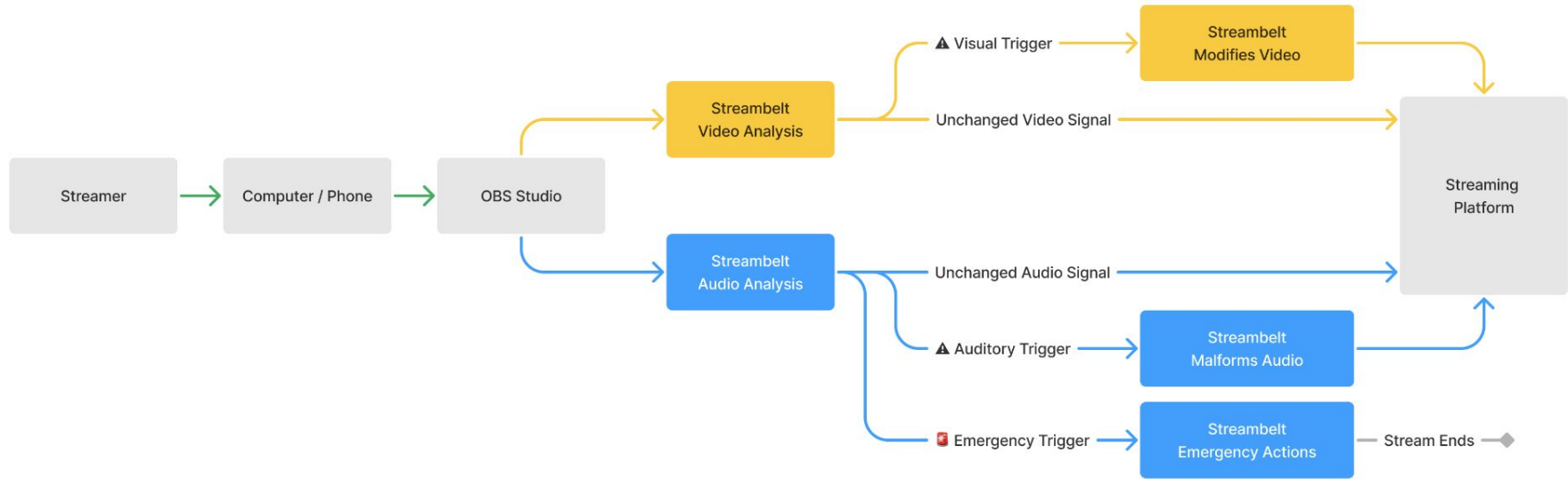Sabelle Chambers | Ryan King | Paul Noonan | Lanie Vorwerk

streambelt.com

The Streambelt extension helps protect streamers' personal information by using technology enabled by AI and machine learning to detect and block any sensitive information that might accidentally appear in their stream. For example, if a driver's license or a piece of mail is visible on the stream, the extension will automatically blur or hide it so that viewers cannot see it. This uses **computer vision algorithms**.

The extension also monitors the streamer's audio feed for sensitive information, such as their full name or address. If any sensitive information is detected, the extension will garble the audio, making it unintelligible to viewers or listeners. This uses **natural language processing**.

Natural language processing also lets streamers set a "safe word" in the extension ahead of time. If the safe word is spoken during the stream, the extension immediately triggers a set of customizable emergency actions. As defined by the user, the actions may include stopping the stream, sending a message to a designated person, or alerting emergency services, among other predefined actions.

Run locally and detecting sensitive information in real-time, Streambelt utilizes recent advances in machine learning algorithms to keep streams smooth and lag-free, so streamers don't have to sacrifice quality in the name of safety.

Streamer → Computer / Phone → OBS Studio

Streambelt Video Analysis
- ⚠ Visual Trigger → Streambelt Modifies Video → Streaming Platform
- Unchanged Video Signal → Streaming Platform

Streambelt Audio Analysis
- Unchanged Audio Signal → Streaming Platform
- ⚠ Auditory Trigger → Streambelt Malforms Audio → Streaming Platform
- 🚨 Emergency Trigger → Streambelt Emergency Actions → Stream Ends

Brand Insight

In 1959, Volvo saved millions of future lives by sharing their invention of the 3-point seat belt instead of patenting it. Sharing technology became a keystone in their brand rooted in safety.

Opportunity

By making people feel safe on the largest uncharted frontier, the internet, Volvo can expand its safety positioning off-road.

Key Finding

Livestreamers are a high-risk online population because they share hours of real-time, unfiltered content that poses a threat to their privacy, security, and safety. By guarding the security of streamers, Volvo proves they have the ability to protect anyone online.

Strategy

Protect at-risk streamers on the digital frontier to cement Volvo as the safety pioneer of technology.

Computer Vision Algorithms

Computer vision algorithms are a type of artificial intelligence that enable machines to understand and analyze images or videos. The Streambelt algorithm has been trained on a large dataset of images that contain potential sources of sensitive information, like driver's licenses or pieces of mail. The algorithm uses this training to continuously monitor the video feed during a stream, looking for these sources of information. If detected, the algorithm applies a filter to only the sensitive information on camera, blurring or obfuscating the sensitive information from viewers without disrupting the rest of the stream.

Natural Language Processing

Natural language processing is a type of artificial intelligence that enables machines to understand and interpret human language. Trained on a large dataset that includes words or sounds that may contain sensitive information, Streambelt's algorithm analyzes the streamer's spoken words, listening for things like full names or addresses. If identified, the extension automatically malforms the audio, disguising the sound to prevent viewers from understanding the sensitive information without garbling other words or audio.

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