

Idea 1: Creative Genome – Performance Insights Dashboard

This AI-powered tool analyzes video ads to explain *why* they worked, not just *what* happened. It breaks each ad into scenes and emotional arcs (joy, humor, tension, etc.) and links these to performance metrics. For example, the system might use a video AI (e.g. Twelve Labs) to identify objects/people and a sentiment AI (Hume/OpenAI) to label the tone of each scene. It then cross-references this with test data (like Swayable's persuasion metrics) to surface insights. Creative analysis research shows that matching an ad's emotion to context boosts engagement ¹, and AI can rapidly uncover “so what” insights for marketers ². In short, this dashboard turns subjective creative decisions into data-backed guidance by mapping each ad's “emotional DNA.”

- **Business Impact:** Marketers save time and money on ad testing. By pinpointing which creative elements (colors, expressions, music, pacing) drive brand lift, teams avoid blind A/B tests and prevent flops. For example, an AI-driven “Creative Genome” tool once reorganized ad variants to achieve ~22% higher CTR (vs. manual designs) ³. Automated emotion/sentiment scoring flags potential issues early (e.g. culturally sensitive jokes ⁴), helping brands avoid costly backlash. Agencies can justify creative spend with hard data, turning insights into higher ROI and fewer wasted impressions ² ⁵.
- **Customers:** The primary customers are advertisers and agencies. CMOs, creative directors and media strategists at mid-to-large brands need this insight to optimize campaigns. For example, a creative strategist at a DTC agency might use the dashboard to show a CEO how an ad's smile or color scheme improved purchase intent ⁵. Essentially, any team that produces video ads and wants science-backed feedback (from automotive to CPG companies) would use it.
- **Scalability:** This is a cloud/SaaS service. Each new ad video (15–30s) is run through APIs (scene detection, sentiment analysis) and the results stored in a data warehouse or BI tool. With modern video AI and scalable dashboards (Snowflake/PowerBI), it can process thousands of ads in parallel. The system can handle multiple clients and even international campaigns by swapping in language- or region-specific sentiment models. The heavy compute is in the analysis phase, but once set up, new ads can be queued and indexed automatically.
- **Target Audience:** This tool is aimed at marketing and insights teams, not end consumers. Typical users are data-savvy marketers, creative analytics groups, and agency media planners. They look for actionable reports and dashboards to refine creative strategy. (Testimonial: “Motion empowers my creative team with the data they need to make the right decisions” ⁵.) In essence, **Idea1** serves the B2B market of marketing analytics.
- **Existing Players:** Several companies occupy this space. *Motion (Motionapp)* offers creative reporting and AI agents that uncover what makes ads “winners” ⁵ ⁶. *Swayable* provides consumer-tested insights via AI-driven analysis of real people's reactions ². *AdCreative.ai* and *AdAmigo.ai* do automated optimization for digital ads. Specialized tools like *Imentiv AI* and Wunderman Thompson's *Reveal* focus on emotional triggers in video and micro-expression detection ⁷. These validate demand for emotion-aware ad analytics. Our approach differs by combining multimodal video

understanding with persuasion data in one dashboard, but the competitive landscape shows strong interest in data-driven creative insights.

Idea 2: Contextual Video Ad Placement Service

This service would automatically insert video ads into relevant scenes of other video content. It uses AI to “understand” a video’s context and match it with an advertiser’s messaging. For example, an API (like Twelve Labs) could scan a tech review video and flag a scene where the host complains “this phone breaks easily.” If an advertiser has a smartphone ad touting durability, the system would pick that moment for insertion. In practice, a video is segmented and described with tags (dialogue, objects, mood) via multimodal AI, then an ad server picks ads whose keywords align with those tags ⁸ ⁹. This goes beyond genre-level targeting; scene-level analysis ensures ads appear when viewers are emotionally primed ¹⁰ ⁸.

- **Business Impact:** Contextual placement can greatly improve ad relevance and engagement. Studies show viewers pay more attention and recall ads better when the ad’s mood matches the surrounding content ¹⁰. Early pilots report huge gains: for instance, one platform claims ~90% view-through rate on YouTube ads and ~50% lower cost-per-impression on CTV by targeting key scenes ¹¹. Advertisers avoid wasted spend on out-of-place ads (e.g. no snack commercial during a sad scene). It also inherently boosts brand safety – AI spotlights cultural cues so ads don’t clash with local norms ⁴. Furthermore, this method is privacy-friendly: Bitmovin notes it replaces cookie-based targeting by analyzing content, enabling relevant ads without personal data ¹². In sum, brands get higher ROI on video ad spend through better engagement and safety.
- **Customers:** Buyers are advertisers and platforms. Brands with video campaigns (like tech, automotive, entertainment) will pay for guaranteed contextual fits. Agencies can upsell this targeting to their clients. On the supply side, streaming platforms or CTV services (e.g. Roku channels, YouTube/IG if partners) and ad networks (like Google/Meta) could adopt it to enhance their ad offerings. In practice, the service sits between content hosts and ad buyers: e.g. a platform licenses the tech to analyze its video library, and advertisers buy the contextual ad slots. Given the need for platform integration, initial customers might be medium-sized publishers or networks with CTV apps before the giant platforms are on board.
- **Scalability:** Technically challenging but not impossible. Companies like Silverpush already process *billions* of ad requests and contextually map *tens of millions* of videos to support advanced targeting ¹³. We would leverage similar cloud AI pipelines to analyze each incoming video (scene detection + NLP). The bigger issue is integration: full-scale deployment requires partnerships with major video platforms (YouTube, TikTok, etc.) or leveraging open video APIs. Without that, our prototype might only handle a curated video library. In a hackathon proof-of-concept, we could analyze sample clips and output recommended ad timings, but real-world scaling needs platform cooperation. Fortunately, the underlying AI (scene classification, NLP) can handle large volumes once pipelines are built ⁹ ¹³.
- **Target Audience:** This targets ad-tech and media companies. The **end users** are still advertisers and agencies who want better targeting. But the **implementation stakeholders** include OTT/CTV publishers, social-video platforms, and programmatic networks. Early adopters might be niche content publishers (e.g. gaming or education channels) that see value in more relevant ads. Over time, the audience expands to any platform seeking premium ad solutions. Essentially, it’s a B2B offering aimed at both content owners and advertisers.
- **Existing Players:** There is growing traction here. *Silverpush* offers AI-driven contextual video ads (YouTube, CTV, social) with brand-safety and dashboard reports ¹⁴. *Bitmovin* even showcased a

hackathon prototype for AI-powered ad insertion ⁸. On the broader ad side, contextual networks like GumGum or Oracle's Grapeshot do content-based targeting (mostly for display), and Outbrain/Taboola use some video contextual matching. For true scene-level video placement, startups like *Sizmek* (now by Amazon) and *CineChrome* have tried solutions. But few directly link specific scenes to ad selection; that's the niche our idea fills. These incumbents show the space is hot, but also that significant engineering is needed to compete.

Comparison and Recommendation

Both ideas offer strong business value but differ in feasibility and scope. **Idea 1 (Creative Genome)** is a deep analytics project: it leverages mature video and NLP APIs to help marketers make data-driven creative decisions ¹ ⁵. It directly matches the hackathon's emphasis on AI intelligence and reporting – in fact, the hack criteria call for insights *beyond* basic detection, which this idea delivers. Several proof points (Motion's user quotes, Swayable's approach) indicate real demand for such analysis ⁵ ². It can be built and demoed end-to-end (ad upload → dashboard) within the hack, and it appeals to a clearly defined customer set (agencies/brands with large ad budgets).

Idea 2 (Contextual Ad Placement) is conceptually exciting: targeting ads by story context has the potential for high ROI. Yet it hinges on major platform integration and heavy infrastructure. The space already has specialized vendors (Silverpush, Bitmovin's prototype) and would require navigating publisher permissions. For a hackathon, delivering a live end-to-end service (with YouTube/IG integration) is unrealistic. Its business impact is real but more speculative without full rollout.

Considering **business impact, hackathon fit and execution risk**, **Idea 1 (Creative Genome)** is the stronger choice. It directly addresses a known marketer pain point with advanced AI (emotions, sentiment, persuasion) and produces a tangible deliverable (a shareable dashboard with recommendations) ¹ ⁵. It aligns with judging criteria (50% intelligence, 35% reporting, 15% scalability) and has proven analogs in the market. In contrast, Idea 2's dependency on third-party platforms and existing competition makes it harder to implement quickly.

Therefore, we recommend proceeding with the **Creative Genome – Emotion-Aware Analytics** project. Its clear business case for brands, defined target users (CMOs/creative teams), and fit to hackathon requirements make it the superior option.

Choice: *Creative Genome Dashboard* (Idea 1) – turning subjective ad creative into science-backed decisions ¹ ⁵.

¹ Next-level advertising with Wurl's creative analysis

<https://www.wurl.com/blog/harnessing-the-power-of-emotion-next-level-advertising-with-wurls-creative-analysis/>

² Inside Swayable's AI Analysis Factory: Advancements That Accelerate Creative Testing Programs

<https://insights.swayable.com/inside-swayables-ai-analysis-factory-advancements-that-accelerate-creative-testing-programs>

³ Boost Brand Growth with Google Ads AI Tools | Topkee

<https://www.topkee.com.sg/dynamic/google-ads-ai-brand-growth>

4 10 How AI Is Redefining Contextual Ad Placement In Media - AdMonsters

<https://www.admonsters.com/how-ai-is-redefining-contextual-ad-placement-in-media/>

5 6 Motion | Ship more winning ads

<https://motionapp.com/>

7 AI Tools for Testing Emotional Triggers in Ads - AdAmigo.ai Blog

<https://www.adamigo.ai/blog/ai-tools-for-testing-emotional-triggers-in-ads>

8 12 AI Contextual Advertising: New Era of Viewer-Centric Ads

<https://bitmovin.com/blog/ai-contextual-advertising-viewer-centric-ads/>

9 A Tour of Video Understanding Use Cases - Twelve Labs

<https://www.twelvelabs.io/blog/a-tour-of-video-understanding-use-cases>

11 13 14 Contextual, Precise and Brand Suitable Video Advertising - Silverpush

<https://www.silverpush.co/>