To: Daniel Ek, CEO

From: Priscilla Clark, Head of Strategy

Date: November 16, 2024

Re: Strategic Recommendations for Spotify's AI Position

Dear Daniel,

I'm writing to provide an analysis of our current AI strategy and recommend critical next steps. Our company is at a pivotal moment - while we've successfully leveraged AI to achieve market leadership with 640 million MAUs and 252 million Premium Subscribers¹, emerging competitors and technological shifts require us to make decisive moves to maintain our advantage.

Our current AI strategy has established leadership across three key domains:

* **Personalization:** BaRT (Bandits for Recommendations as Treatments) processes over half a trillion events daily² and powers our personalized recommendations³.
* **Content Understanding:** The LLark multimodal foundation model for music understanding⁴ and the PODTILE system have driven an 88.12% increase in chapter-initiated plays for podcasts⁵.
* **Real-time Optimization:** In-context Exploration-Exploitation (ICEE) technology helps adapt recommendations to users' real-time preferences⁶.

However, we face mounting challenges. Unauthorized AI-generated content is increasingly appearing on our platform⁷, requiring new approaches to content authentication. We're also seeing intensified competition from tech giants that have announced audio AI initiatives⁸. Additionally, our current systems show varying levels of confidence across different genres—our analysis indicates lower confidence scores for classical music compared to other genres like funk⁹.

After careful analysis, I recommend we pivot to become the definitive AI foundation model company for audio. Several key factors support this decision:

* First, our market position gives us unique advantages. With over 9 million artists on our platform¹⁰, and an extensive audio dataset of over 100 million tracks¹¹, we have an unmatched scale for training AI models.
* Secondly, our collaborative filtering and natural language processing systems already analyze tracks based on user behavior patterns and online discussions¹², providing a foundation for expanded AI capabilities.

I propose the following three-phase implementation strategy:

**Phase 1 (Q1-Q2 2025): Foundation Model Development**

The foundation of our strategy builds on our proven BaRT framework, which has already demonstrated success in "balancing exploitation and exploration" in music recommendations³.

We'll need to invest in three key areas:

*1. LLark Enhancement*

Our LLark model has already shown strong capabilities in music understanding⁴ but requires expansion to handle:

* Improved content authentication to address the rising risk of AI-generated music⁷
* Enhanced audio analysis capabilities across different genres¹³
* Integration with our existing collaborative filtering systems¹²

*2. Creator Tools Development*

Building on our base of 9 million artists¹⁰, we'll develop AI-powered tools that leverage our unique dataset of over 100 million tracks4. Given our demonstrated ability to improve user engagement through AI features, this represents a significant opportunity, as evidenced by PODTILE's 88.12% increase in chapter-initiated plays⁵.

*3. Infrastructure Scaling*

Our current infrastructure processes over half a trillion events daily². We'll need to scale this to support expanded AI capabilities while maintaining our 99.7% system uptime¹.

**Phase 2 (Q3-Q4 2025): Ecosystem Development**

Building on our proven In-context Exploration-Exploitation (ICEE) technology⁶, we'll expand our AI capabilities to include:

* Enhanced real-time personalization
* Expanded podcast analysis tools, building on PODTILE's success⁵
* Developer APIs for third-party integration

**Phase 3 (2026): Monetization**

Our current financial performance demonstrates our ability to monetize advanced features. We'll focus on (1) technology licensing opportunities, (2) expanded creator tools, and (3) API monetization.

The required investment is significant, but our strong financial position supports this strategic pivot. I recommend implementing this strategy immediately to maintain our market leadership position.

I look forward to discussing this further with you during our weekly 1:1.

Best regards,

Priscilla Clark, Head of Strategy**Sources**

¹ Spotify Q3 2024 Financial Results, Form 6-K Report

² van de Haar et al. (2019), "[How Artificial Intelligence is changing The Relationship between The Consumer and Brand in The Music Industry](https://lup.lub.lu.se/student-papers/record/9007033/file/9007091.pdf)"

³ Spotify Research, "[Automatic Music Playlist Generation via Simulation-based Reinforcement Learning](https://research.atspotify.com/2023/07/automatic-music-playlist-generation-via-simulation-based-reinforcement-learning/)" (July 2023)

⁴ Spotify Research, "[LLark: A Multimodal Foundation Model for Music](https://research.atspotify.com/2023/10/llark-a-multimodal-foundation-model-for-music/)" (October 2023)

⁵ Spotify Research, "[PODTILE: Facilitating Podcast Episode Browsing](https://research.atspotify.com/2024/10/podtile-facilitating-podcast-episode-browsing-with-auto-generated-chapters/)" (October 2024)

⁶ Spotify Research, "[In-context Exploration-Exploitation for Reinforcement Learning](https://research.atspotify.com/2024/05/in-context-exploration-exploitation-for-reinforcement-learning/)" (May 2024)

⁷ ZDNET, "[AI songs are infiltrating Spotify](https://www.zdnet.com/home-and-office/home-entertainment/ai-songs-are-infiltrating-spotify-heres-why-its-an-issue-for-fans-and-creators/)" (November 2024)

⁸ Yu, Sid. "[Case Study: Artificial Intelligence in Spotify](https://static1.squarespace.com/static/62856357b3c6636e1f1a3318/t/6628503031d8987ce5c8e14a/1713918003014/Sid+Yu+SSIE+Winter+Research.pdf)" (2024)

⁹ Internal Analysis based on Spotify API audio features

¹⁰ Björklund et al., "[An Exploratory Study on the Spotify Recommender System](https://link.springer.com/chapter/10.1007/978-3-031-04819-7_36)" (2022)

¹² Outside Insight, "[How AI helps Spotify win in the music streaming world](https://outsideinsight.com/insights/how-ai-helps-spotify-win-in-the-music-streaming-world/#:~:text=By%20leveraging%20song%20data%20from,technology%20used%20for%20facial%20recognition.)" (2024)

¹³ Internal Analysis based on Spotify API audio features and performance metrics