Three Lessons from Spotify's Personalization Paradox

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24 August, 2025

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Abstract

Spotify's AI DJ presents a personalization paradox: a feature built to enhance user experience with generative AI alienated some users. Our analysis of 1,400+ user comments indicates the friction stemmed from a perceived loss of control and mismatched expectations about its human-like persona. From this, we distill three actionable lessons for IS leaders: (1) design for user agency to build trust, (2) manage expectations for anthropomorphic AI, and (3) balance AI safety with scalable, dynamic content.

Keywords: Generative AI, Personalization, Customer Experience (CX), Recommender Systems, AI Adoption, User Autonomy, Responsible AI.

The AI Personalization Paradox

Companies from Google, which has mandated AI integration across its product suite,[1] to Samsung, which launched a "new era of mobile AI" in its flagship phones,[2] are committing billions to generative AI to redefine customer personalization. The scale of the investments is immense, with enterprise spending projected to reach $143 billion by 2027[3] and the total market forecast to exceed $1 trillion by 2034.[4]

This strategy is a direct response to overwhelming market demand; recent reports show that 76% of consumers grow frustrated by generic interactions and are more likely to buy from a company that offers personalized content; 78 percent said such content made them more likely to repurchase.[5] Reflecting this focus on personalization, 73% of customers felt brands treated them as unique individuals in 2024, up from 39% in 2023.[6]

The financial returns seem to justify the spending. Firms that master personalization generate 40% more revenue from these activities[7] and can achieve up to an 8x return on investment.[8] A recent EY survey found that a remarkable 97% of senior leaders whose organizations are investing in

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[1]Love, J. & Alba, D., Google's Plan to Catch ChatGPT Is to Stuff AI Into Everything, Bloomberg, March 2023, available at https://www.bloomberg.com/news/articles/2023-03-08/chatgpt-success-drives-google-to-put-ai-in-all-its-products?embedded-checkout=true.

[2]Enter the New Era of Mobile AI With Samsung Galaxy S24 Series, Samsung, January 2024, available at https://news.samsung.com/global/enter-the-new-era-of-mobile-ai-with-samsung-galaxy-s24-series.

[3]IDC, "Generative AI spending to reach $143B in 2027," Computerworld, October 16, 2023, available at https://www.computerworld.com/article/1637459/generative-ai-spending-to-reach-143b-in-2027-idc.html.

[4]As supported by separate forecasts by Bloomberg Intelligence, "Generative AI to Become a $1.3 Trillion Market by 2032, Research Finds," June 1, 2023, available at https://www.bloomberg.com/company/press/generative-ai-to-become-a-1-3-trillion-market-by-2032-research-finds/ and Precedence Research, "Generative AI Market Size, Share, and Trends 2025 to 2034," May 22, 2025, available at https://www.precedenceresearch.com/generative-ai-market.

[5]McKinsey & Company, "The value of getting personalization right—or wrong—is multiplying," November 12, 2021, available at https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-value-of-getting-personalization-right-or-wrong-is-multiplying.

[6]Salesforce, "State of the AI Connected Customer, 7th Edition," 2024, available at https://www.salesforce.com/research/state-of-the-connected-customer/.

[7]McKinsey & Company, "The value of getting personalization right—or wrong—is multiplying," November 12, 2021, available at https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-value-of-getting-personalization-right-or-wrong-is-multiplying.

[8]Deloitte, "Marketing and IT: The New Data Duo for AI-Powered Growth," 2024, available at https://www.deloitte.com/content/dam/Deloitte/us/Documents/consulting/us-the-new-data-duo-for-ai-powered-growth.pdf.

AI are seeing positive ROI, often from initiatives aimed directly at improving customer experience and increasing revenue.[9] Analysis of Spotify data shows that even a 1% increase in customer retention can boost customer lifetime value by over 15%, making it the single most powerful lever for long-term profitability.[10]

Consequently, adoption has become a mainstream imperative. OpenAI, for example, reports that over 92% of Fortune 500 companies use its platform, while a separate industry survey found that 56% of businesses are leveraging AI specifically to improve their personalization efforts.[11] Yet, this widespread adoption is happening alongside significant executive concern over the high cost of implementation and the difficulty in forecasting the return on these massive investments. This dual pressure—to innovate while proving ROI—has created a clear mandate for business leaders: deliver value quickly and avoid costly missteps.

A paradox is emerging in this high-stakes environment, fueled by a dangerous blind spot: while the technology's capabilities are clear, a critical evidence gap remains in how consumers will react. Technology designed to create personal connection can instead alienate users, making it exceedingly difficult to forecast the true return on these massive investments. While the payoff for getting it right is significant—personalization done well consistently boosts satisfaction, loyalty, and long-term value—[12]the risks of a misalignment are severe, as a majority of customers (63%) report they would switch to a competitor after just one poor experience.[13] The fallout from

[9]EY, "EY research: Artificial intelligence investments set to remain strong in 2025, but senior leaders recognize emerging risks," 10 Dec 2024 , available at https://www.ey.com/en_us/newsroom/2024/12/ey-research-artificial-intelligence-investments-set-to-remain-strong-in-2025-but-senior-leaders-recognize-emerging-risks.

[10]This calculation is based on data from Spotify's original IPO filing. While the absolute figures have changed, the disproportionate impact of retention on CLV remains a core principle of subscription model economics. See Spotify Technology S.A., "Form F-1 Registration Statement," *U.S. Securities and Exchange Commission*, February 28, 2018, available at https://www.sec.gov/Archives/edgar/data/1639920/000119312518063434/d494294df1.htm.

[11]On adoption rates, see Reuters, "OpenAI's Altman pitches ChatGPT Enterprise to large firms," April 12, 2024, available at https://www.reuters.com/technology/openais-altman-pitches-chatgpt-enterprise-large-firms-including-some-microsoft-2024-04-12/; and Twilio, "The 2025 State of Customer Engagement Report," June 3, 2025, available at https://www.twilio.com/en-us/state-of-customer-engagement.

[12]Abraham, M. & Edelman, D. C., "Personalization Done Right," *Harvard Business Review*, November–December 2024, available at https://hbr.org/2024/11/personalization-done-right; Schrage, M., "The Transformational Power of Recommendation," *MIT Sloan Management Review*, November 24, 2020, available at https://sloanreview.mit.edu/article/the-transformational-power-of-recommendation/.

[13]Zendesk's 2025 industry report found that 63% of consumers are willing to switch to a competitor after just one bad

Snapchat's 'My AI' chatbot illustrates this danger vividly: user backlash was so intense it dropped the app's average rating to 1.67 stars.[14]

Spotify's experience with its AI DJ provides a perfect laboratory for examining this gap between technological promise and user reality. The company invested heavily to create the feature—a "personalized AI guide"—with the effort including a €93 million acquisition of the voice-AI firm Sonantic.[15] Initial user frustration, however, was significant enough that Spotify later updated the feature to allow voice requests, a direct response to the friction between the AI's design and users' desire for control.[16] To capture the unfiltered voice of the customer, we conduct a sentiment and topic analysis of over 1,400 online user comments. From this evidence, we derive an evidence-based framework for managers to navigate this paradox, ensuring AI personalization initiatives deliver value instead of friction. Our analysis yields three actionable lessons for designing and deploying generative AI in customer personalization.

Spotify's High-Stakes Bet on Personalization

Founded in Sweden in 2006, Spotify is the uncontested scale leader in music streaming. As of Q1 2025, the company serves 678 million monthly active users, including 268 million paying subscribers—more than double its nearest competitor.[17]

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experience. See Zendesk, "Zendesk 2025 CX Trends Report: Human-Centric AI Drives Loyalty," November 20, 2024, available at https://www.zendesk.com/sg/newsroom/articles/2025-cx-trends-report/.

[14]For an analysis of the user backlash to Snapchat's 'My AI' feature, see TechCrunch, "Snapchat sees spike in 1-star reviews as users pan the My AI feature," April 24, 2023, available at https://techcrunch.com/2023/04/24/snapchat-sees-spike-in-1-star-reviews-as-users-pan-the-my-ai-feature-calling-for-its-removal/.

[15]The €93 million figure for the Sonantic acquisition is detailed in Spotify S.A., Form 20-F, filed February 1, 2024, available at https://www.sec.gov/Archives/edgar/data/1639920/000163992024000004/ck0001639920-20231231.htm. For the feature's launch announcement, see Spotify Newsroom, "Spotify Debuts a New AI DJ, Right in Your Pocket," February 22, 2023, available at https://newsroom.spotify.com/2023-02-22/spotify-debuts-a-new-ai-dj-right-in-your-pocket/.

[16]For the official announcement of the feature update, see Spotify Newsroom, "DJ Now Takes Requests, Enhancing Real-Time Music Discovery," May 13, 2025, available at https://newsroom.spotify.com/2025-05-13/dj-voice-requests/. Spotify reported that DJ listener engagement had nearly doubled year-over-year; adding voice requests aimed to give users real-time control.

[17]For current user and market share data, see Spotify, "Q1 2025 Earnings Release," April 29, 2025, available at https://newsroom.spotify.com/2025-04-29/spotify-reports-first-quarter-2025-earnings/; and MIDiA Research, "Music subscriber market shares 2024: Slowdown? What slowdown?," March 27, 2025, available at https://www.midiaresearch.com/blog/music-subscriber-market-shares-2024-slowdown-what-slowdown.

The company operates on a "Freemium" model, using its free, ad-supported tier as a crucial funnel to convert listeners into paying subscribers, who generate 87% of its revenue.[18] With a library of over 100 million tracks, helping users navigate this vast collection is not just a feature; it is central to both conversion and retention. Personalization is core to Spotify's value proposition: 81% of its listeners cite personalization as what they like most about the service,[19] a loyalty built on a decade of features like Discover Weekly, which was streamed for over 2.3 billion hours in its first five years alone.[20]

Therefore, the financial stakes of getting personalization right are immense. To pursue this strategic prize, Spotify embarked on a decade-long strategy of acquiring key AI capabilities to build an insurmountable lead in personalization (see Table 1).

Table 1: *Spotify's decade-long strategy of acquiring AI capabilities laid the foundation for the AI DJ.*

Year	Company Acquired	Strategic Capability Gained
2013	Tunigo	Music discovery and playlist curation
2014	The Echo Nest	Music recommendations and data analysis
2017	Sonalytic	Audio detection for playlist improvement
2017	Niland	AI-based recommendation enhancement
2022	Sonantic	Hyper-realistic AI voice platform

This journey culminated in the AI DJ. Rolled out in February 2023 from its position of market dominance (see Figure 1), the AI DJ combined recommendation algorithms with generative AI to create a hyper-realistic radio host.[21] The company viewed the feature as so integral to its value

[18]For Spotify's revenue breakdown, see Spotify S.A., "Form 20-F: Annual Report for the fiscal year ended December 31, 2023," *U.S. Securities and Exchange Commission*, February 1, 2024, available at https://www.sec.gov/Archives/edgar/data/1639920/000163992024000004/ck0001639920-20231231.htm.

[19]On the importance of personalization to users, see Spotify, "Behind the Scenes of Spotify's New AI DJ," March 8, 2023, available at https://newsroom.spotify.com/2023-03-08/spotify-new-personalized-ai-dj-how-it-works/.

[20]For Discover Weekly statistics, see Spotify Newsroom, "Spotify Users Have Spent Over 2.3 Billion Hours Streaming Discover Weekly Playlists Since 2015," July 9, 2020, available at https://newsroom.spotify.com/2020-07-09/spotify-users-have-spent-over-2-3-billion-hours-streaming-discover-weekly-playlists-since-2015/.

[21]For the official launch announcement, see Spotify Newsroom, "Spotify Debuts a New AI DJ, Right in Your Pocket,"

proposition that it was cited as a key innovation justifying its 2023 global price increase.[22] The launch itself followed a classic "Bowling Alley Strategy," beginning with a beachhead market (U.S. and Canada) before expanding to other regions based on user demand.[23] Early engagement metrics were highly encouraging: on days users tuned in, they spent 25% of their listening time with the DJ, and over half of first-time listeners returned the next day.[24]

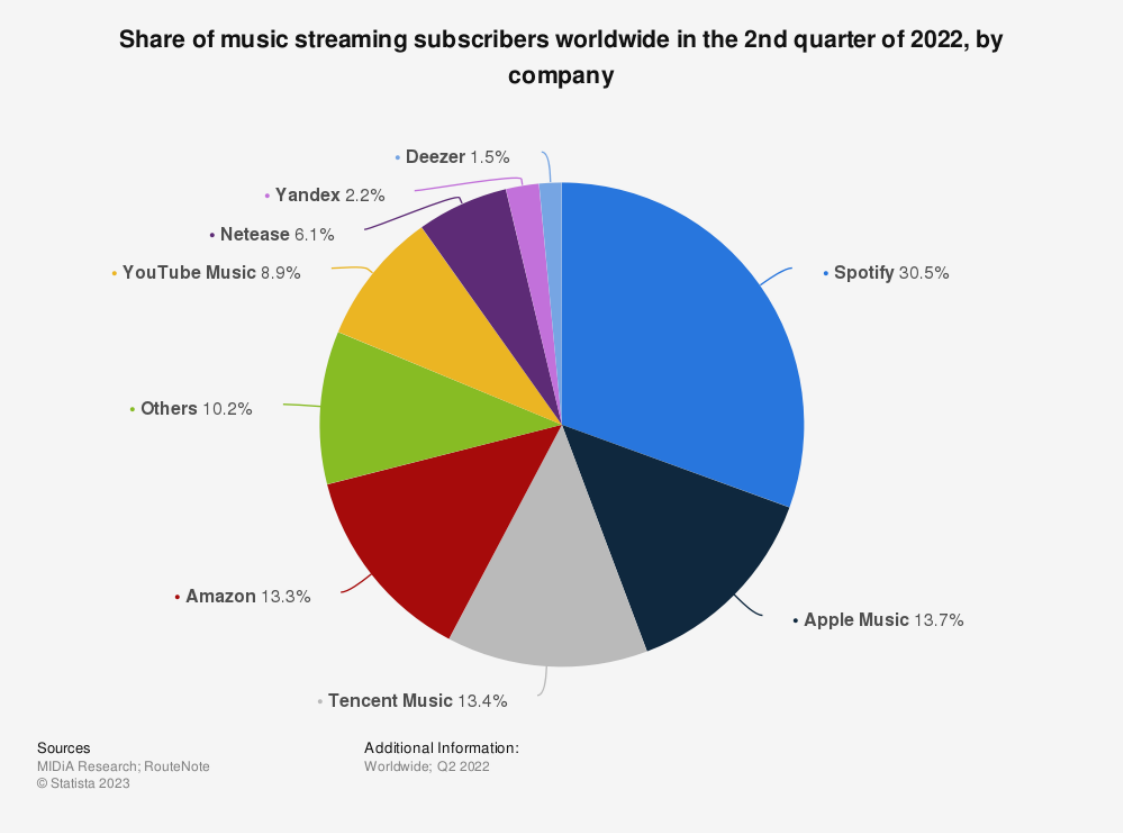

Figure 1: *Spotify's dominant global market share in Q2 2022, the period immediately preceding further AI expansions.*

Yet the launch also revealed the AI personalization paradox. Tech press and users complained of repetitive song loops and an off-putting persona—as *Wired* bluntly put it, the feature "Has

February 22, 2023, available at https://newsroom.spotify.com/2023-02-22/spotify-debuts-a-new-ai-dj-right-in-your-pocket/.

[22]See Spotify Newsroom, "Adjusting Our Spotify Premium Prices," July 24, 2023, available at https://newsroom.spotify.com/2023-07-24/premium-price-change-2023/.

[23]Moore, G. A., *Crossing the Chasm*, Harper Business, 1991.

[24]Engagement metrics were shared by Spotify during its Stream On event. See Spotify, "Behind the Scenes of Spotify's New AI DJ," op. cit.

No Soul."[25] Recognizing this friction, Spotify iterated rapidly. By May 2025, the company had integrated voice requests, allowing users to steer the session in real time. The impact was immediate: engagement nearly doubled year-over-year after the update, indicating that adding a feedback loop transformed a polarizing feature into a habit-forming channel.[26]

The Promise: How the AI DJ Was Designed to Win

Spotify's AI DJ was a strategic attempt to deepen the user relationship through three core innovations designed to make music discovery feel more personal, contextual, and human. Each element was carefully crafted to address a specific weakness in traditional algorithmic recommendation systems and transform a passive listening experience into an interactive dialogue.

First, the DJ delivered *contextual audio explanations*, moving beyond simple "because you liked X" justifications. By providing brief, spoken introductions about an upcoming song, artist, or genre, the feature aimed to give users a reason *why* they were hearing something new. As Spotify's Head of Global Music and Discovery, J.J. Italiano, noted, this context "gives the listener a deeper connection and experience when hearing an artist or song."[27] This approach, a form of explainable AI (XAI), was designed to build trust and make users more open to exploring recommendations they might otherwise skip, with Spotify's own data confirming that users are more willing to try new music when commentary is provided.[28] The use of audio was also a key design choice, allowing Spotify to deliver this rich context without creating the visual clutter or cognitive overload that text-heavy explanations can cause on a mobile interface.[29]

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[25] Ashworth, B., "Spotify's AI DJ Has No Soul," *Wired*, February 25, 2023, available at https://www.wired.com/story/spotify-ai-dj/.

[26] For the announcement and impact of the voice request update, see Spotify Newsroom, "Spotify's DJ Now Takes Requests, Enhancing Real-Time Music Discovery," May 13, 2025, available at https://newsroom.spotify.com/2025-05-13/dj-voice-requests/. Also see TechRadar, "I dismissed Spotify's AI DJ for years – here's why I'm finally warming up to the streaming giant's most divisive feature," June 20, 2025, available at https://www.techradar.com/audio/spotify/i-dismissed-spotifys-ai-dj-for-years-heres-why-im-finally-warming-up-to-the-streaming-giants-most-divisive-feature.

[27] Spotify Newsroom, "Behind the Scenes of Spotify's New AI DJ," March 8, 2023, available at https://newsroom.spotify.com/2023-03-08/spotify-new-personalized-ai-dj-how-it-works/.

[28] Ibid.

[29] For a discussion of challenges with presenting explanations visually in recommender systems, see Kouki, P., et al.,

Second, the feature introduced *AI-assisted commentary at scale*. Manually scripting unique, culturally relevant commentary for a library of over 100 million tracks would be impossible, and the DJ would be of little value without scalability. To solve this, Spotify created a hybrid system where its team of music experts and scriptwriters collaborated with OpenAI's generative AI technology. This human-in-the-loop model allowed Spotify to generate a massive volume of personalized commentary while maintaining a high degree of accuracy and brand safety.

However, this approach also revealed the challenges of scalability. While the AI DJ's output demonstrated several techniques to build rapport, key implementation flaws could break immersion. For instance, on the one hand, it fostered familiarity through direct personalization, incorporating the user's name and the current day (*"Hey what's going on [user's name]! You're back here with your DJ X, jumping right into Saturday…"*). It also showed data-driven curation by referencing recent listening history (*"Next, I got some songs you've been keeping on repeat"*) and attempted mood-based curation to enhance discovery (*"Up next is time for a vibe, and that vibe is healing, starting with AKMU"*). On the other hand, a frequent user complaint was the mispronunciation of an artist's name (*"…one of your top artists LANY (mispronounced as laning)"*), an error that highlights the difficulty of maintaining quality at scale and, as our analysis shows, was a significant source of user frustration.

Finally, the DJ was built around an *anthropomorphic, human-like voice*. Using the AI voice-cloning technology from its Sonantic acquisition, Spotify modeled the DJ's voice on a real person—Xavier "X" Jernigan, one of its own executives. This was a deliberate strategic choice to move away from the robotic, impersonal nature of typical text-to-speech assistants. The goal was to leverage the power of the human voice to create a sense of familiarity and warmth, which is particularly effective for subjective tasks like music recommendation where perceived human-likeness increases user engagement.[30] By making the recommender system feel more like a

"Personalized explanations for hybrid recommender systems," in *Proceedings of the 24th International Conference on Intelligent User Interfaces*, 2019, pp. 379–390, available at https://doi.org/10.1145/3301275.3302306.

[30]Research shows that for subjective tasks, increasing the perceived human-likeness of an algorithm improves user response to hedonic and benefit-based product appeals through the recommenders' perceived ability to learn. See Trzebiński, W., et al., "Online recommenders' anthropomorphism improves user response to hedonic and benefit-

trusted human companion, Spotify aimed to foster a deeper emotional connection with its users, transforming the algorithm from a tool into a brand personality.

Together, these innovations aimed to turn passive listening into an engaging, human-like conversation, setting a new standard for AI-driven personalization. However, the feature's ambitious design soon collided with the complex and often unpredictable reality of user experience.

Analysis: Where the User Experience Broke Down

To investigate user response to the AI DJ, we sought to analyze unsolicited, real-world user feedback. Online communities are crucial sources for capturing the "unfiltered voice of the customer," providing rich data on user reactions to new technologies.[31] The social media platform Reddit, known for its candid and in-depth user discussions, is an especially valuable data source for management research.[32]

Using the RedditExtractoR R wrapper package, we collected data from two prominent Spotify-focused subreddits, *r/spotify* (over 2 million members) and *r/truespotify* (over 100,000 members), covering the first two months after the feature's launch in February 2023. After cleaning the initial scrape of 1,808 comments by removing deleted posts and comments under 30 characters, our final analysis was conducted on a dataset of 92 posts and 1,442 comments.

We employed a two-stage analysis. For sentiment analysis, we used a RoBERTa-based model, a tool robustly optimized for social media text because its training corpora include data from Reddit.[33] For topic modeling, we used the BERTopic model, which is more effective than traditional

based product appeals through the recommenders' perceived ability to learn," *PLoS ONE* (18:6), 2023, e0287663, available at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0287663.

[31]For an example of this approach, see Xu, Z., et al. (2024). The public attitude towards ChatGPT on reddit: A study based on unsupervised learning from sentiment analysis and topic modeling. *PLoS One*, 19(5), e0302502, available at https://pmc.ncbi.nlm.nih.gov/articles/PMC11093324/.

[32]For a systematic review of Reddit's use in research, see Proferes, N., et al. (2021). Studying Reddit: A Systematic Overview of Disciplines, Approaches, Methods, and Ethics. *Social Media + Society*, 7(2), available at https://journals.sagepub.com/doi/10.1177/20563051211019004.

[33]See Liu, Y., et al. "RoBERTa: A Robustly Optimized BERT Pretraining Approach," *arXiv*, July 26, 2019, available at https://arxiv.org/abs/1907.11692.

models for identifying coherent topics in short, contextual social media posts.[34] We identified seven distinct topics, with the most relevant detailed in Table 2 (the last row collapses 3 minor topics).

Table 2: *Key Topics from User Comments on the AI DJ*

Topic	% of Comments	Example Keywords
Song Selections	32%	songs, dj, playlist, discovery, repeat
Availability/Rollout	20%	access, countries, beta, update
DJ's Voice	17%	annoying, accent, female option, grating
Other Spotify Features	17%	stream on, hifi, quality, creators
Outliers & Miscellaneous	14%	skip, radio, april fools

Our analysis reveals a sharp disconnect between the AI DJ's strategic rationale and its reception. User reaction was polarized, with negative sentiment (34%) notably outweighing positive sentiment (26%). Crucially, the friction was not with the concept of generative AI itself, but with specific, recurring failures in its implementation. Three core problems emerged from the user feedback: misaligned recommendations, an inflexible and sometimes irritating voice, and a perceived loss of user control.

The most frequent complaint centered on the DJ's core function: the music itself. Users reported that the recommendations often felt repetitive, recycling the same few artists and songs instead of fostering new discovery. Others found the selections poorly aligned with their tastes, with the DJ frequently defaulting to mainstream pop genres even for listeners who actively avoid them. A common frustration was the feature's failure to introduce *new* music, instead relying heavily on a user's existing listening history, defeating a key purpose of a discovery tool.

The second major point of friction was the DJ's much-touted anthropomorphic voice. While

[34]See Grootendorst, M. "BERTopic: Neural Topic Modeling with a Class-Based TF-IDF Procedure," *arXiv*, March 11, 2022, available at https://arxiv.org/abs/2203.05794; and Egger, R., & Yu, J., "A Topic Modeling Comparison between LDA, NMF, Top2VEC, and BERTopic to Demystify Twitter Posts," *Frontiers in Sociology* (7), 2022, available at https://www.frontiersin.org/articles/10.3389/fsoc.2022.884788/full.

intended to be warm and engaging, many users described the voice as "grating," "annoying," and "irritating." The specific American accent was also a point of contention, with international users in particular finding it "jarring" and expressing a desire for local accents or other options, such as a British or Australian voice. Furthermore, a significant number of users called for the option of a female voice, highlighting a demand for customization that the single, unchangeable voice could not meet.

Finally, the AI DJ's design inadvertently stripped users of a fundamental element of the Spotify experience: control. In a normal listening session, users have full autonomy to search, select, and queue their music. The AI DJ, however, functions more like a traditional radio broadcast, making decisions *for* the user. Users expressed a clear desire for more agency, requesting the ability to provide input or feedback beyond simply skipping a song. They wanted to tell the DJ what they were in the mood for, to exclude certain genres, or to fine-tune the recommendations. Without these mechanisms, many felt trapped in a listening experience they could not steer, transforming the promise of hyper-personalization into a reality of rigid, top-down programming.

A Framework for Success: Three Actionable Lessons for Business Leaders

The friction points in user feedback—from misaligned recommendations to a perceived loss of control—reveal a critical gap between AI's technical capabilities and the psychological needs of its users. For business leaders, closing this gap is the key to unlocking the technology's true potential. Our analysis distills these insights into a clear framework for success, built on three actionable lessons to help managers avoid the pitfalls Spotify encountered and design consumer-facing AI that builds trust.

Lesson 1: Designing for Efficiency Cannot Come at the Cost of User Agency

As our analysis showed, users felt trapped in a listening experience they could not steer, which undermined the feature's goal of creating a positive connection. When users perceive a loss of autonomy, they often experience psychological reactance—a negative feeling that motivates them to reassert their freedom.[35] A feature that ignores the user's need for agency, no matter how efficient, is designed to be rejected.

The solution is to implement simple but powerful feedback mechanisms that create a dialogue. A "skip" button is a blunt instrument; a "dislike," "not this vibe," or "play less of this artist" button is a tool for partnership. Spotify's own "Dislike/Hide song" feature, used in past and current playlists, provides a clear precedent for this approach.[36] Such features serve a dual purpose: they satisfy the user's innate need for control, making them feel heard and respected, while providing the AI with high-quality, explicit data to rapidly improve its recommendation model.

Lesson 2: Manage Expectations for Human-Like AI

When an AI acts human, users subconsciously expect it to learn, adapt, and empathize like one. The negative reaction to the DJ's voice highlights this "anthropomorphism trap": the more human-like the AI, the higher the user's expectations, and the greater the disappointment when those expectations are violated.[37] The desire for different accents or a female voice was not just a matter of preference; it was a response to a feature that felt personal yet was not *personally adaptable*.

To avoid this pitfall, managers should pursue a two-part strategy. First, they can temper

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[35]The concept of psychological reactance was first proposed by Brehm, J. W., in *A Theory of Psychological Reactance*, Academic Press, 1966. Its application in technology adoption highlights that users resist systems that feel overly controlling.

[36]See Spotify Help, "How to hide and unhide songs," accessed August 20, 2025, available at https://support.spotify.com/us/article/hide-unhide-songs/.

[37]Research has shown that when anthropomorphic agents raise consumer expectations, their subsequent failures lead to greater dissatisfaction and lower firm evaluations. See Crolic, C., et al., "Blame the Bot: Anthropomorphism and Anger in Customer-Chatbot Interactions," *Journal of Marketing* (86:1), 2022, pp. 132-148, available at https://doi.org/10.1177/00222429211045687. Chang, Hannah H., and Anirban Mukherjee, "The Persuasive Effect of AI-Synthesized Voices," *ANZMAC 2023 Conference Proceedings*, December 4-6, 2023, pp. 89-91, available at https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=8416&context=lkcsb_research, show that multiple AI synthesized voices can enhance persuasion when attention is low but backfire with high processing costs.

expectations by being transparent about the AI's current limitations. A simple, upfront message like, "I'm still learning your tastes, so let me know what you think," can frame the interaction as a work-in-progress and inoculate against frustration. Second, firms should offer simple customization. While providing fully customizable, user-generated AI voices carries significant ethical and safety risks,[38] offering a small, curated selection of pre-approved voices (e.g., different accents, genders, or tones) can satisfy the demand for personalization. This approach gives users a sense of choice and allows them to select a voice they connect with, mitigating the risk of alienation while maintaining brand safety.

Lesson 3: Balance AI Safety with Scalable Value

The repetitiveness that users noted in the AI DJ's commentary was not a failure of generative AI's raw capabilities, but a direct consequence of Spotify's conservative, human-in-the-loop safety model. To prevent the AI from generating inaccurate, inappropriate, or off-brand content, a team of human experts reviewed and scripted much of the commentary. While this ensured quality and safety, it created a scalability bottleneck that results in a limited and repetitive user experience.[39]

This reveals a core operational challenge: how to maintain control over an AI's output without sacrificing the dynamic, varied content needed for personalization at scale. We recommend a tiered governance model to strike this balance.[40] For high-risk content areas—such as commentary

[38]The misuse of voice-cloning technology for deepfakes and scams is a growing concern for practitioners. See Alex Hern, "OpenAI deems its voice cloning tool too risky for general release," *The Guardian*, March 31, 2024, https://www.theguardian.com/technology/2024/mar/31/openai-deems-its-voice-cloning-tool-too-risky-for-general-release; and Dan Milmo, "Company worker in Hong Kong pays out £20m in deepfake video call scam," *The Guardian*, February 5, 2024, https://www.theguardian.com/world/2024/feb/05/hong-kong-company-deepfake-video-conference-call-scam. For a broader compliance overview, see AIMultiple Research, "AI Compliance: Top 6 Challenges & Case Studies in 2025," August 19, 2024, https://research.aimultiple.com/ai-compliance/.

[39]Spotify's own research team is actively exploring how to use LLMs to automate the generation of personalized narratives, which underscores the strategic importance of solving this scalability challenge. See Spotify Research, "Contextualized Recommendations Through Personalized Narratives Using LLMs," December 18, 2024, available at https://research.atspotify.com/2024/12/contextualized-recommendations-through-personalized-narratives-using-llms.

[40]Mirrors recommendations in other highly regulated industries, where balancing innovation with consumer protection is a central challenge of AI governance. See Global Financial Innovation Network (GFIN), "Key Insights on the Use of Consumer-Facing AI in Global Financial Services," 2025, available at https://www.thegfin.com/uploads/publications/pdf/1737980082_The%2520GFIN%2520Ai%2520Report%25202025.pdf.

on sensitive topics or new, unvetted artists—firms should maintain a strict human review and approval process. However, for low-risk, high-volume content—like providing context on a well-known song or transitioning between familiar genres—the AI can be granted more autonomy to generate commentary dynamically. This "liberalized" tier should be supported by robust automated monitoring systems, including sentiment analysis and keyword flagging, to catch and escalate any problematic outputs. This risk-adjusted approach allows firms to ensure brand safety where it matters most while still leveraging the full power of generative AI to create a rich, varied, and truly personalized experience at scale.[41]

Concluding Comments

The race to deploy generative AI in consumer-facing applications is accelerating, but as Spotify's experience demonstrates, the path is fraught with user experience challenges. Technological capability alone is not enough to guarantee success; the most sophisticated effort can fail if it neglects the fundamental human need for control and poorly manages expectations.

This Article provides a practical, evidence-based framework for navigating this paradox. Analyzing over 1,400 user comments on the AI DJ, we derive three actionable lessons for business leaders: restore user control to build trust, manage expectations for human-like AI, and balance safety with scalable value. These principles are not just about improving a single feature; they are about building a sustainable and productive relationship between users and the increasingly intelligent systems that they interact with.

As AI becomes more deeply embedded in the fabric of customer experience, the firms that win will be those that design their systems with behavioral insights at their core. The ultimate goal is not just to build powerful AI, but to build technology that customers find genuinely helpful, worthy, and trustworthy.

[41]This challenge is addressed by emerging technical frameworks, such as meta-learning, which can rapidly identify dynamic user preferences even from limited data, enabling personalization at scale. For a detailed discussion, see Yin, M., Boughanmi, K., & Mukherjee, A., "Modeling Dynamic Consumer Preferences from Few-shot Data: A Meta-Learning Approach," *SSRN*, March 2024, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4727171.