

Proposal for Cooperation on Patent Technology for AI Personalization Services through a Multi-Voice System

With Amazon, always be with the voice you desire.

Introduction

Ten years ago, the movie 'Her' premiered in 2014, a film that many will remember. It tells the story of a man who meets an artificial intelligence operating system named 'Samantha,' through whom he heals his wounds and regains happiness. He develops feelings of love for her.

Recently, OpenAI's 'GPT-4' sparked global interest and controversy by mimicking the voice of actress Scarlett Johansson. The point at which the AI ecosystem is no longer just a story in a movie but is becoming a reality.

Imagine if 'Samantha's' operating system became Amazon's 'Alexa.' Imagine Amazon, the pioneer of the global smart speaker revolution, becoming the unrivaled leader in the era of generative AI and hyper-personalized media convergence.

Like in the movie 'Her,' people will seek new services that combine various forms of voices. I am confident that Amazon and Jeff Bezos, icons of innovation and challenge, will be at the center of this.

Patent Information

Patent Title: Multi-voice system for online media service implementation

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Japan Patent Number: JP7262142

Korea Patent Number: 제 10-2111360호

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Patent Description:

This invention relates to a method for implementing a multi-voice system that allows subscribers to select and listen to online articles and content in the voices of multiple individuals on various online content platforms.

Technical Concepts:

- 1. Pre-set Online Article and Content Collection:** Collect articles and content from specific media sites and display them on personal device screens.
- 2. Subscriber Voice Setting:** Enter the subscriber's voice or select a specific person's voice from a pre-stored voice database.
- 3. Article and Content Recognition and Classification:** Recognize and classify online articles and content.

4. **Voice Conversion:** Convert classified online articles and content into voice.
5. **Voice Output:** Output articles and content in the voice set by the subscriber or specific person.

Through this, users can listen to digital content in the voice they desire.

Market Analysis and Growth Prospects

The AI voice technology market is rapidly growing and has high growth potential in the coming years.

According to market research, the AI voice assistant market is expected to grow at an annual rate of over 20%, reaching approximately \$4 billion by 2025. Major market players include Google, Apple, Microsoft, and Amazon, whose market share and technological advancements highlight the importance of AI voice technology.

Competitive Analysis

Major competitors like Google, Apple, Microsoft, and Facebook are heavily investing in AI voice technology, expanding their market share through voice assistant services such as Google Assistant, Siri, Cortana, and Facebook M. In comparison, Amazon can emphasize the following competitive advantages through this patent:

- **Google:** While Google Assistant is known for its natural voice recognition and response, its personalized voice services are still limited. This patent allows Amazon to provide a more personalized experience to users, differentiating itself from Google Assistant.
 - **Apple:** Siri benefits from integration with the Apple ecosystem but offers limited user voice personalization. Amazon can provide a superior personalized voice experience compared to Siri through this patent.
 - **Microsoft:** Cortana focuses primarily on enterprise services with limited use in the general consumer market. Amazon can target both general consumers and businesses with this patent.
 - **Facebook:** Facebook M is integrated mainly into messaging services but is limited in voice recognition and personalization. Amazon can offer superior voice recognition and personalized services through this patent.
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Specific Use Cases

User Scenarios:

- **Family Use Case:** Families can set up voice profiles for each member with Amazon Echo, for example, greeting children with a parent's voice in the morning or receiving news briefings in a celebrity's voice. This enhances

user satisfaction and device utilization.

- **Student Use Case:** Students on the AWS Educate platform can listen to educational content in their preferred voices. This increases motivation and supports various learning styles, improving the quality of education. For instance, language learners can choose voices in both their native and target languages for a bilingual learning environment.
 - **Business Professional Use Case:** Business professionals can listen to audiobooks on Audible in the voice of specific celebrities. This provides an immersive listening experience, enhancing learning and information acquisition efficiency.
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Additional Applicable Business Areas

Amazon Music:

- **Personalized DJ Service:** Provide a personalized DJ feature where users can receive music recommendations or playlists in their preferred voices, such as being introduced to music by the voice of a famous artist.
 - **Business Approach:** Implement personalized DJ features where users can get music recommendations or playlists guided by voices they prefer. This personalizes the user experience and enhances satisfaction.
 - **Expected Revenue:** \$20 million annually
 - **Detailed Rationale:** Personalized DJ services increase user engagement and attract premium subscribers. When users receive personalized music recommendations, they are more likely to listen frequently, boosting streaming revenue.

Music Streaming Personalized Ads: Deliver ads in users' preferred voices to maximize advertising effectiveness.

- **Business Approach:** Deliver ads in users' preferred voices to maximize advertising effectiveness, providing higher ROI to advertisers and increasing ad revenue.
- **Expected Revenue:** \$15 million annually
 - **Detailed Rationale:** Personalized ads enhance user engagement and provide advertisers with higher click-through and conversion rates, increasing advertising revenue for the music streaming platform.

Amazon Shopping (e-commerce):

- **Personalized Voice Guidance Service:** Allow users to receive product information in their preferred voices, such as having kitchenware introduced by a famous chef's voice for a personalized shopping experience.
 - **Business Approach:** Implement services where users receive product

information in their preferred voices.

- **Expected Revenue:** \$25 million annually
 - **Detailed Rationale:** Personalized voice guidance helps users easily understand product information and make purchasing decisions, increasing shopping cart conversion rates and driving sales growth.

Voice-Based Recommendation System: Analyze users' shopping patterns to provide personalized voice recommendations.

- **Business Approach:** Build a system that analyzes users' shopping patterns to offer personalized voice recommendations.
- **Expected Revenue:** \$20 million annually
 - **Detailed Rationale:** Personalized voice recommendations attract user interest and increase the purchase rate of recommended products, contributing to overall sales growth.

Amazon Fresh and Whole Foods:

- **Personalized Voice Recipe Guidance:** Offer cooking recipes in users' preferred voices, such as being guided through cooking steps by a famous chef's voice.
 - **Business Approach:** Implement a feature where users receive cooking recipes in their preferred voices.
 - **Expected Revenue:** \$15 million annually
 - **Detailed Rationale:** Personalized voice recipes enhance user experience and promote the sale of ingredients used in the recipes, increasing food sales.

Voice Ordering Service: Enable users to order fresh groceries using personalized voice commands.

- **Business Approach:** Implement a feature where users can order fresh groceries using personalized voice commands.
- **Expected Revenue:** \$20 million annually
 - **Detailed Rationale:** Voice ordering services improve convenience, encouraging users to place orders more frequently, leading to increased sales.

Amazon Logistics and Delivery:

- **Personalized Voice Delivery Notifications:** Allow users to receive delivery status updates in their preferred voices, such as having delivery notifications in a familiar voice.
 - **Business Approach:** Implement a service where users receive delivery status updates in their preferred voices.
 - **Expected Revenue:** \$10 million annually

- **Detailed Rationale:** Personalized delivery notifications enhance user experience and customer satisfaction, increasing the likelihood of repeat purchases, boosting logistics and delivery service revenue.

Amazon Gaming (including Twitch):

- **Personalized In-Game Voice Guidance:** Provide in-game guides or tutorials in users' preferred voices.
 - **Business Approach:** Implement features where users receive in-game guides or tutorials in their preferred voices.
 - **Expected Revenue:** \$15 million annually
 - **Detailed Rationale:** Personalized in-game voice guidance increases user immersion and game playtime, promoting in-game purchases.

Personalized Streaming Narration: Allow streamers to provide game commentary or narration in users' preferred voices during live streams.

- **Business Approach:** Implement a feature where streamers provide game commentary or narration in users' preferred voices.
- **Expected Revenue:** \$10 million annually
 - **Detailed Rationale:** Personalized streaming narration enhances interaction between streamers and viewers, increasing watch time and ad revenue.

Kindle and Amazon Publishing:

- **Personalized Voice Books:** Provide services where users can listen to e-books in their preferred voices, such as listening to books narrated by specific authors or celebrities.
 - **Business Approach:** Implement services where users can listen to e-books in their preferred voices.
 - **Expected Revenue:** \$20 million annually
 - **Detailed Rationale:** Personalized voice books enhance competitiveness in the audiobook market and personalize the user experience, expanding the subscriber base and increasing audiobook and e-book sales.

Technology Integration Plan

Technology Integration Roadmap:

1. **Year 1:** Integration with Alexa
 - Introduce a multi-voice system on the Alexa platform, allowing users to choose from various voices.
 - Set up personalized voice profiles to enhance user experience.

Year 2: Application to Prime Video and Audible

- Add personalized voice narration features to Prime Video content.
- Implement various voice options for Audible audiobooks.

Year 3: Expansion to AWS and Amazon Care

- Integrate personalized voice recognition and conversion features into AWS cloud services for enterprise customers.
- Introduce personalized voice alerts and health information services in Amazon Care.

Beyond Year 3: Further expansion to additional business areas

- Integrate personalized voice technology into Amazon Music, Amazon Shopping, Amazon Fresh and Whole Foods, Amazon Logistics and Delivery, Amazon Gaming, and Kindle and Amazon Publishing.

Utilization of Customer Data

Utilization of Customer Data for Personalized Services: Amazon leverages its vast customer data to provide personalized voice services. By analyzing customer data, personalized voice profiles are created to enhance customer satisfaction.

- **Alexa:** Analyze user voice data to offer personalized voice responses and set up personalized voice profiles.
- **Amazon Prime Video:** Provide personalized voice narration based on user viewing data to increase user immersion.
- **Audible:** Analyze user listening data to offer personalized audiobook recommendations.

Economic Synergy

Revenue Increase:

- **Alexa:** Increase user engagement and attract new subscribers with personalized voice services, generating an additional \$50 million annually.
 - **Detailed Rationale:** Allowing users to use Alexa with their preferred voices enhances personalized user experience, significantly increasing user satisfaction. This boosts Alexa's user retention and attracts new users. For example, setting up different voice profiles for each family member and providing personalized responses allows each user to enjoy a personalized experience. Advertisers can also provide more personalized ads, increasing ad revenue.
 - **Business Approach:** Introduce a new subscription model for personalized voice services. For instance, offer premium subscribers the option to choose specific celebrity voices, generating additional

subscription revenue. Provide the functionality to set up voice profiles for each family member, encouraging family subscriptions.

Amazon Prime Video: Enhance user experience with personalized voice narration, generating an additional \$30 million annually.

- **Detailed Rationale:** Offering the ability to listen to narrations by preferred actors or individuals while watching movies or TV shows significantly enhances user immersion. This increases Prime Video's user retention and attracts new subscribers. Additionally, the personalized experience increases customer satisfaction, leading to additional subscription revenue.
- **Business Approach:** Add features for personalized voice narration in movies and dramas on Prime Video. Enhance user engagement by combining personalized content recommendation systems. Collaborate with advertisers to provide personalized voice ads, generating additional ad revenue.

Audible: Increase new subscriptions with personalized audiobook services, generating an additional \$20 million annually.

- **Detailed Rationale:** Providing the ability to listen to audiobooks in preferred voices personalizes and enhances the immersive listening experience. This boosts Audible's user retention and attracts new subscribers. For example, allowing users to listen to books narrated by favorite actors or authors increases audiobook subscriptions.
- **Business Approach:** Introduce a premium subscription service offering various voice options on Audible. For instance, add the option to listen to audiobooks narrated by specific celebrities, expanding the subscriber base. Implement a personalized audiobook recommendation system to further personalize the listening experience.

AWS: Increase revenue through licensing personalized voice technology and cloud service usage, generating an additional \$50 million annually.

- **Detailed Rationale:** License personalized voice technology to enterprises across various industries through AWS cloud services, generating additional revenue. For example, customer service centers can improve customer service quality by adopting AWS personalized voice technology. Additionally, healthcare, education, and smart home industries can use this technology to offer personalized voice services.
- **Business Approach:** Integrate personalized voice services into the AWS cloud platform, enabling enterprises in various industries to easily implement personalized voice services. For instance, healthcare companies can provide personalized voice alerts for patients, and educational institutions can offer personalized learning content for students.

Amazon Care: Generate an additional \$20 million annually with personalized voice support features.

- **Detailed Rationale:** Amazon Care can provide personalized health information through personalized voice support. For example, patients can receive health information in the voices of their preferred medical professionals or get regular medication reminders. This enhances patient satisfaction and trust, promoting continued service usage.
- **Business Approach:** Introduce personalized voice alert services in Amazon Care to provide personalized health information for patients. For instance, offer health information or medication reminders in the voices of specific medical professionals. This enhances patient satisfaction and trust.

AWS Educate: Generate an additional \$30 million annually by providing personalized educational content.

- **Detailed Rationale:** AWS Educate can use personalized voice synthesis technology to offer educational content in students' preferred voices, increasing motivation and supporting various learning styles to improve educational quality. For instance, language learners can choose voices in both their native and target languages for a bilingual learning environment.
- **Business Approach:** Build a platform in AWS Educate to offer personalized learning content for students. For instance, students can listen to educational materials in their preferred voices, increasing motivation and improving educational quality.

Expected Revenue

Below is the summary of the expected revenue Amazon can generate by acquiring this patent and applying it across various business areas:

Year 1

- **Alexa:** \$50 million
- **Amazon Prime Video:** \$30 million
- **Audible:** \$20 million
- **AWS:** \$50 million
- **Amazon Care:** \$20 million
- **AWS Educate:** \$30 million
- **Amazon Music:** \$35 million
- **Amazon Shopping:** \$45 million
- **Amazon Fresh and Whole Foods:** \$35 million
- **Amazon Logistics and Delivery:** \$10 million
- **Amazon Gaming:** \$25 million
- **Kindle and Amazon Publishing:** \$20 million

Total Expected Revenue: \$370 million

Year 2

- **Alexa:** \$60 million
- **Amazon Prime Video:** \$36 million

- Audible: \$24 million
- AWS: \$60 million
- Amazon Care: \$24 million
- AWS Educate: \$36 million
- Amazon Music: \$42 million
- Amazon Shopping: \$54 million
- Amazon Fresh and Whole Foods: \$42 million
- Amazon Logistics and Delivery: \$12 million
- Amazon Gaming: \$30 million
- Kindle and Amazon Publishing: \$24 million

Total Expected Revenue: \$444 million

Year 3

- Alexa: \$72 million
- Amazon Prime Video: \$43.2 million
- Audible: \$28.8 million
- AWS: \$72 million
- Amazon Care: \$28.8 million
- AWS Educate: \$43.2 million
- Amazon Music: \$50.4 million
- Amazon Shopping: \$64.8 million
- Amazon Fresh and Whole Foods: \$50.4 million
- Amazon Logistics and Delivery: \$14.4 million
- Amazon Gaming: \$36 million
- Kindle and Amazon Publishing: \$28.8 million

Total Expected Revenue: \$532.8 million

Year 4

- Alexa: \$86.4 million
- Amazon Prime Video: \$51.8 million
- Audible: \$34.6 million
- AWS: \$86.4 million
- Amazon Care: \$34.6 million
- AWS Educate: \$51.8 million
- Amazon Music: \$60.5 million
- Amazon Shopping: \$77.7 million
- Amazon Fresh and Whole Foods: \$60.5 million
- Amazon Logistics and Delivery: \$17.3 million
- Amazon Gaming: \$43.2 million
- Kindle and Amazon Publishing: \$34.6 million

Total Expected Revenue: \$639.4 million

Year 5

- Alexa: \$103.7 million
- Amazon Prime Video: \$62.2 million
- Audible: \$41.5 million
- AWS: \$103.7 million
- Amazon Care: \$41.5 million
- AWS Educate: \$62.2 million
- Amazon Music: \$72.6 million
- Amazon Shopping: \$93.2 million
- Amazon Fresh and Whole Foods: \$72.6 million
- Amazon Logistics and Delivery: \$20.7 million

- **Amazon Gaming:** \$51.8 million
- **Kindle and Amazon Publishing:** \$41.5 million

Total Expected Revenue: \$767.2 million

Conclusion

By entering into a licensing agreement for this patent, Amazon can reduce the technology gap with its competitors, secure a competitive advantage, and anticipate increased revenue across various applications as well as expanded influence in the global market.

Considering the potential future revenue and technological benefits for Amazon, licensing this patent represents a highly cost-effective investment.

Furthermore, to prevent potential economic and brand losses that could arise from not licensing this patent, collaboration on this patent license is essential.

Thank you.