

# REAL-LIFE PITCH TO CEO/CTO ON EMERGING TECHNOLOGY

***MAPD725 - Emerging Technology***

***Team name: Group 3***

***Project name: Toyota***

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# INTRODUCTION

- In today's digital landscape, leveraging emerging technologies is vital for businesses to maintain relevance and engage with customers effectively. Technologies like AI, AR, blockchain, and voice interfaces offer new opportunities to enhance digital presence, drive engagement, and build trust with customers. In this presentation, we'll explore how Toyota can leverage these technologies to elevate its digital presence and stay ahead in the automotive industry.

**Objective:** Assess Toyota's website and mobile app to recommend improvements using emerging technologies.

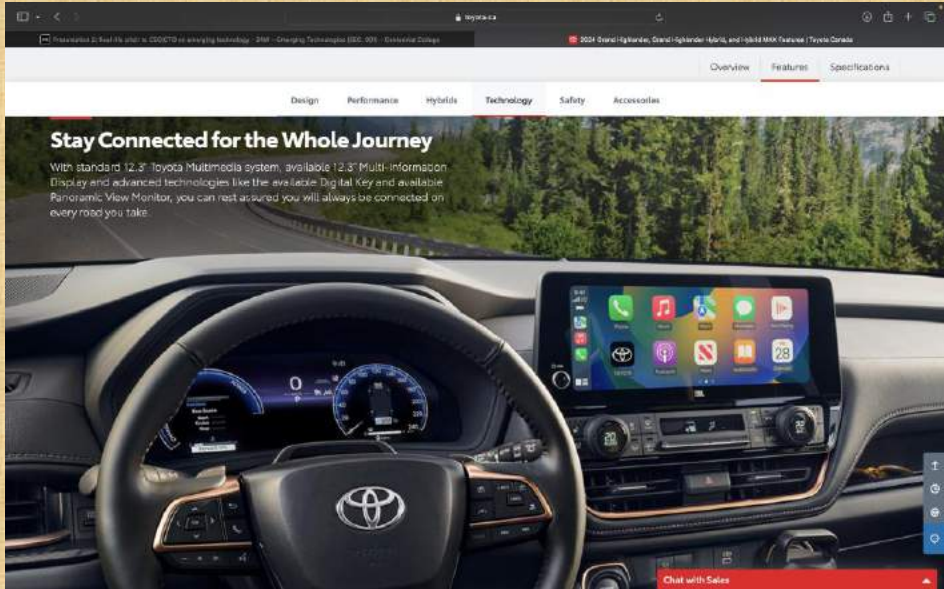
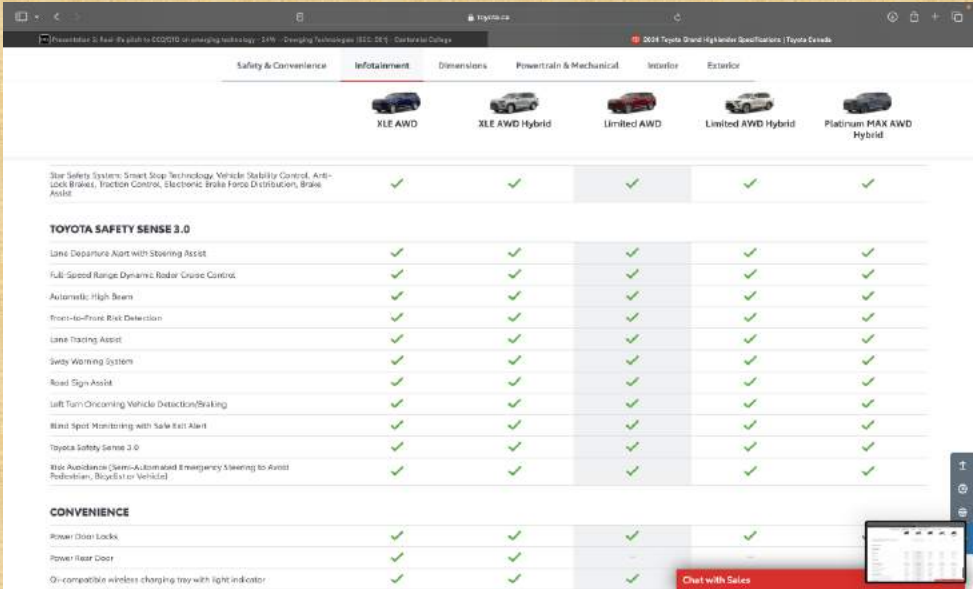
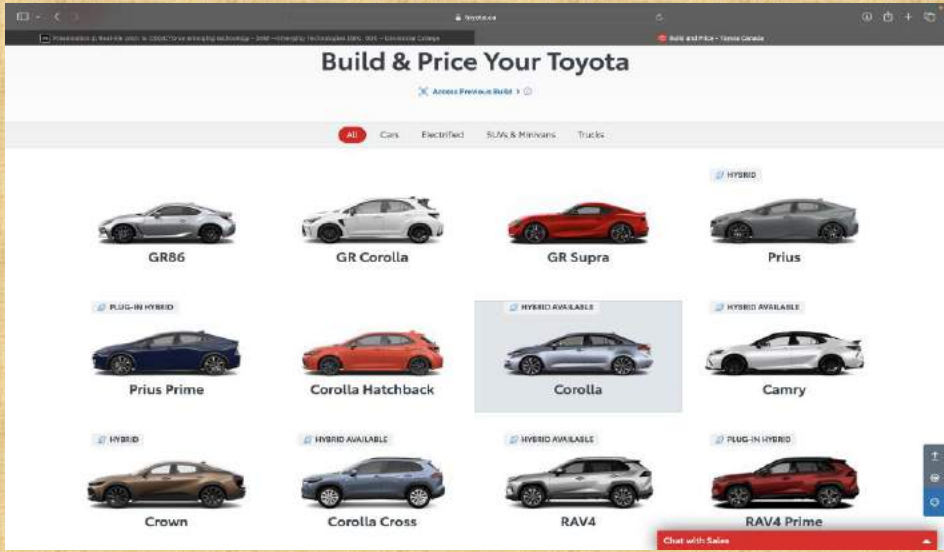
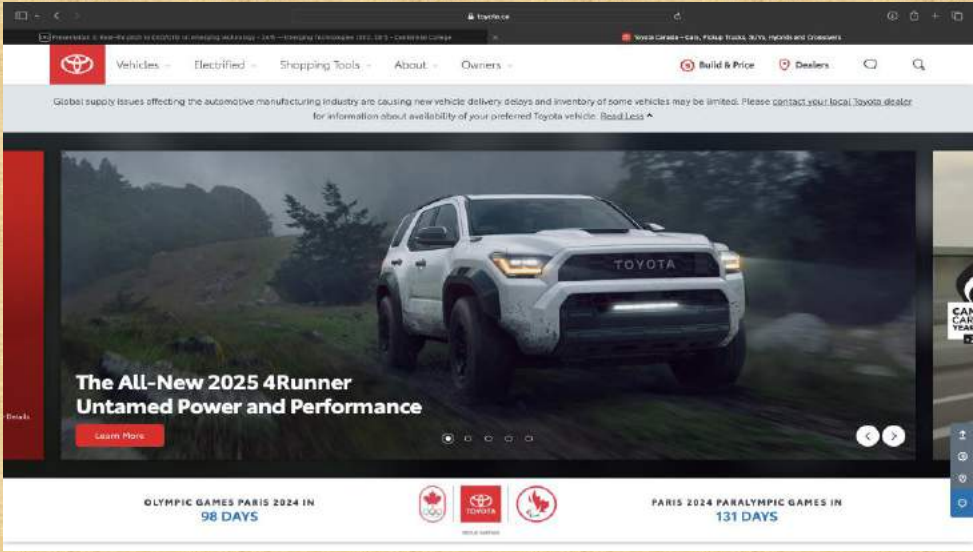
**Purpose:**

- Enhance user experience and engagement.
- Leverage emerging tech (AI, AR, etc.) for innovation.
- Provide strategic recommendations to CEO/CTO.

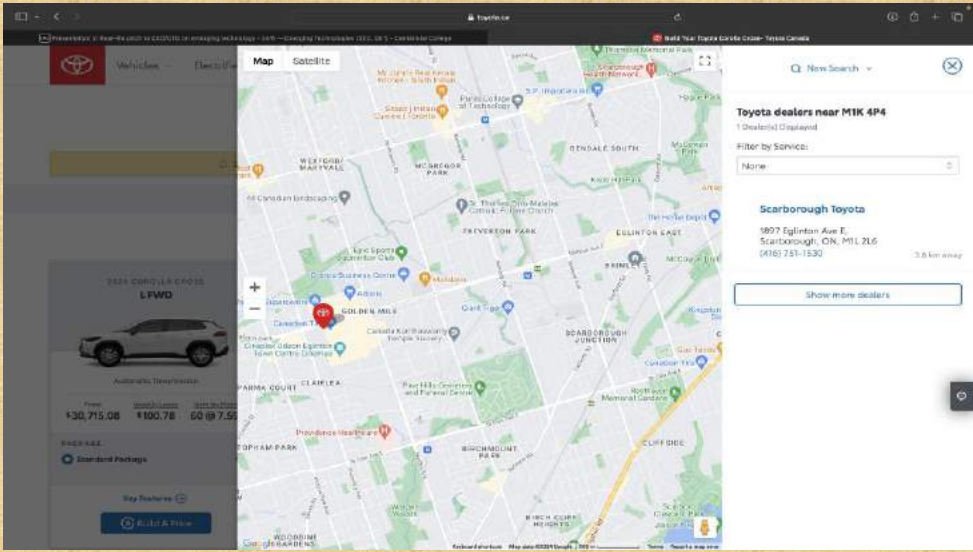
**Expected Outcome:** Comprehensive recommendations to elevate Toyota's digital platforms and maintain competitiveness in the automotive industry.



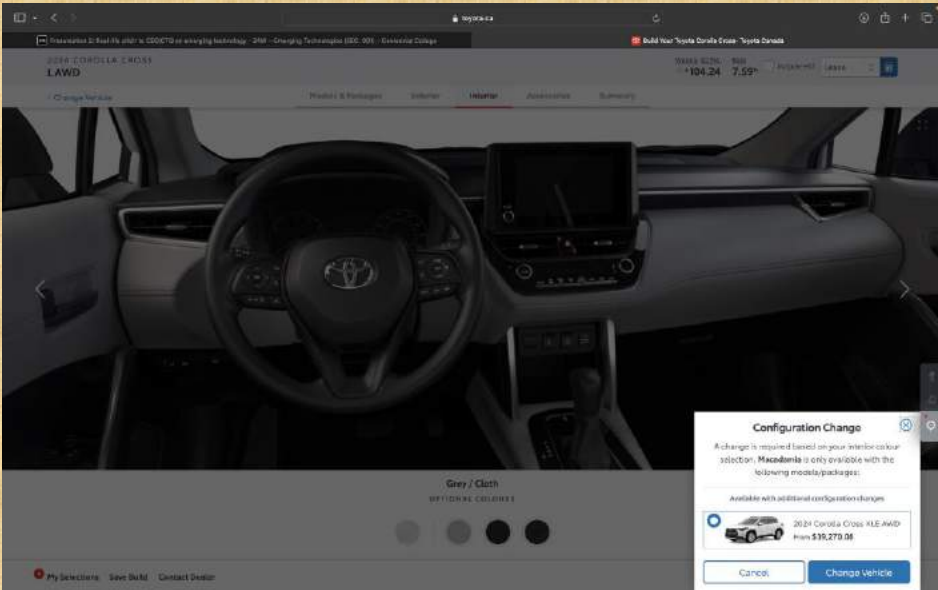
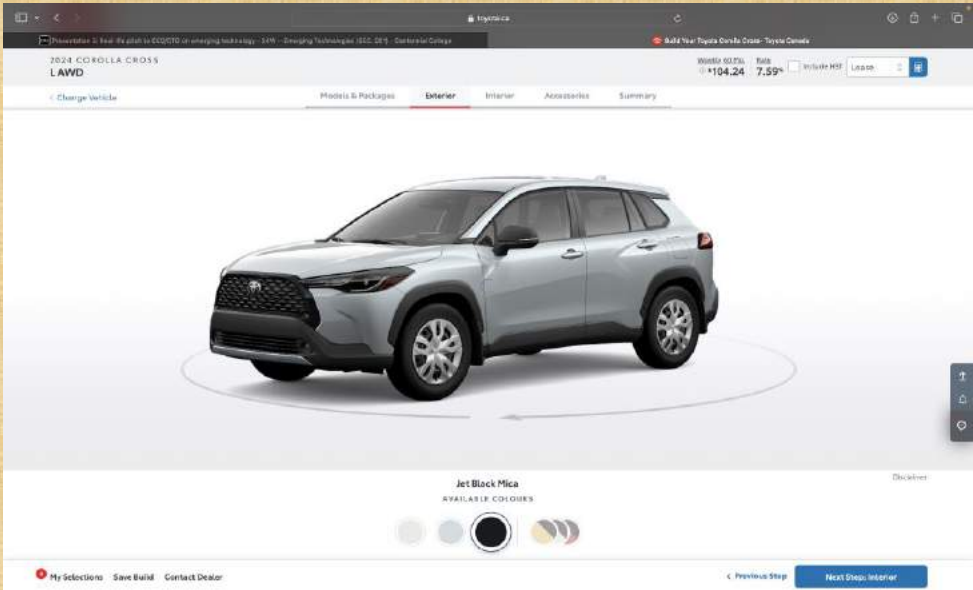
# Over-all look of the Toyota Website



# Over-all look of the Toyota Website



2024 Toyota Corolla Cross LFWO					
Safety & Convenience					
Infotainment					
Dimensions					
Powertrain & Mechanical					
Interior					
Exterior					
10.7" Toyota Multimedia™ ServicesSafety Connect Up to 10yr trial. RemoteStart Connect Up to 10yr trial.					
DIMENSIONS					
DIMENSIONS					
Length mm (in.)	5115 (201.3)	5115 (201.3)	5115 (201.3)	5115 (201.3)	5115 (201.3)
Width mm (in.)	1990 (78.3)	1990 (78.3)	1990 (78.3)	1990 (78.3)	1990 (78.3)
Height mm (in.)	1760 (70.1)	1760 (70.1)	1760 (70.1)	1760 (70.1)	1760 (70.1)
Wheelbase mm (in.)	2950 (116.1)	2950 (116.1)	2950 (116.1)	2950 (116.1)	2950 (116.1)
Seating Capacity	5	5	5	5	5
Ground Clearance mm (in.)	200 (8.0)	200 (8.0)	200 (8.0)	200 (8.0)	200 (8.0)
Gross Vehicle Weight kg (lb.)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)
Towing Capacity kg (lb.)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)	2000 (4408.8)
Payload Capacity (curb weight) kg (lb.)	700 (1543.0)	700 (1543.0)	700 (1543.0)	700 (1543.0)	700 (1543.0)
Cargo Capacity (kg, lb.)	500 (1102.3)	500 (1102.3)	500 (1102.3)	500 (1102.3)	500 (1102.3)
Base Curb Weight kg (lb.)	2000.00 (4408.8)	2000.00 (4408.8)	2000.00 (4408.8)	2000.00 (4408.8)	2000.00 (4408.8)
Full Capacity (kg, lb.)	44 (97.0)	44 (97.0)	44 (97.0)	44 (97.0)	44 (97.0)
Fuel Consumption - City/Highway/Combined L/100km	11.2/6.6/7.9	11.2/6.6/7.9	11.2/6.6/7.9	11.2/6.6/7.9	11.2/6.6/7.9
Fuel Consumption - City/Highway/Combined mpg	23/33/28	23/33/28	23/33/28	23/33/28	23/33/28
Horsepower (kW)	243	243	243	243	243





# IOT Integration for Toyota

Toyota's website stands as a paragon of meeting customer expectations with its seamless interface and comprehensive features. From the moment users land on the homepage, they're greeted with intuitive navigation and a wealth of detailed information on vehicles, services, and resources. Each vehicle page is meticulously crafted, offering in-depth specifications, photos, videos, and user reviews to empower users in their decision-making process.

One of the standout features of Toyota's website is its responsive chatbot, providing quick and informative assistance. Whether users are scheduling a test drive, exploring financing options, or troubleshooting technical issues, the chatbot delivers personalized support in real-time, enhancing the overall user experience. With its dedication to customer satisfaction and user-friendly design, Toyota's website sets the bar high in the automotive industry, offering a model of excellence for others to follow.

# IOT Integration for Toyota

## **Car Sharing with IoT:**

**Feature:** Enable car-sharing services for Toyota vehicles via the app.

**Benefit:**

- Increases accessibility and revenue potential.

## **Chatbot Sales Rep/Mechanics:**

**Feature:**

- Integrate a chatbot for vehicle inquiries and scheduling.

**Benefit:**

- Enhances customer service and boosts sales efficiency.

## **AI Child Entertainment:**

**Feature:**

- AI-curated child-friendly content within the app.

**Benefit:**

- Keeps children engaged during travels, improving satisfaction.

## **AR In-Shop Experience:**

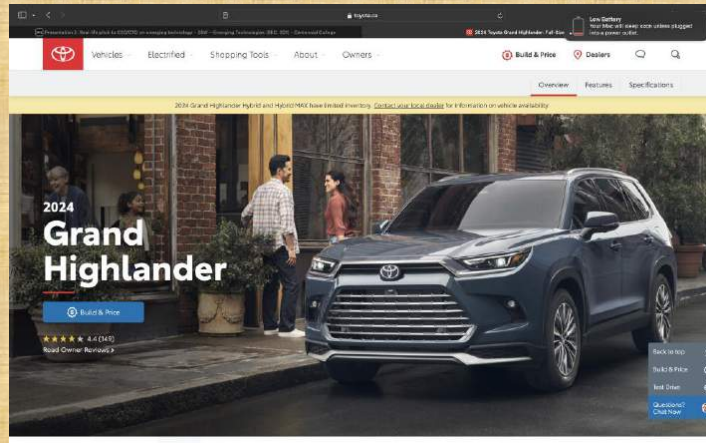
**Feature:**

- AR tool for virtual vehicle exploration.

**Benefit:**

- Enhances showroom experience, aiding purchase decisions.

# AI Integration for Toyota



## •AI Integration Features:

- Personalized recommendations
- Virtual assistant
- Predictive analytics

## Benefits:

- Enhanced user experience
- Increased efficiency
- Data-driven insights

## Summary:

- AI boosts Toyota's digital platforms for better user experience and streamlined operations.

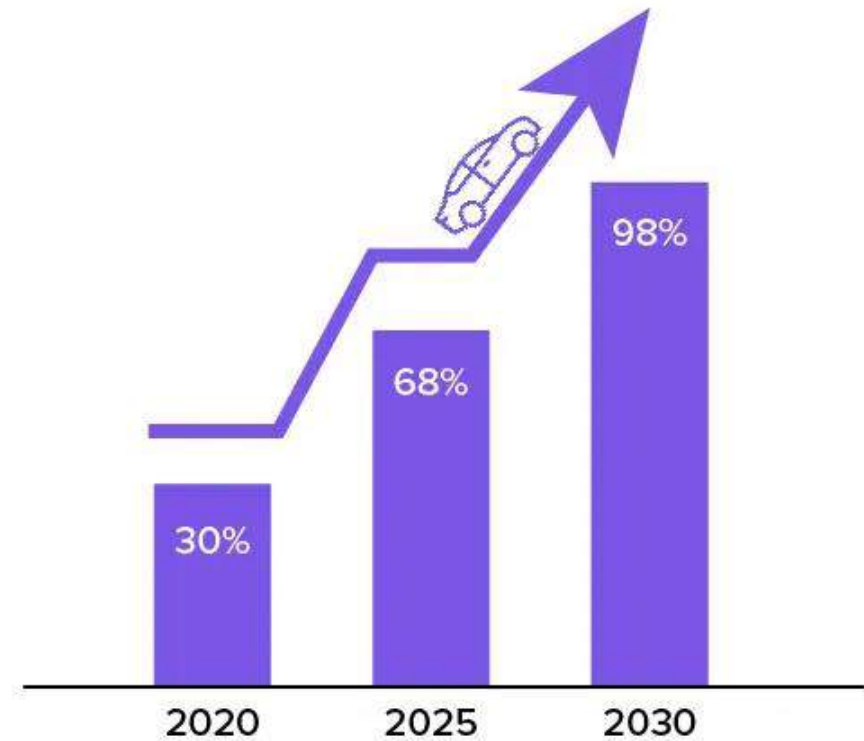
## Recommendations:

The automotive industry should actively explore the integration of AI. Companies are considering AI for enhancing customer experience through personalization and blockchain for improving supply chain transparency and security



# AI INTEGRATION FOR TOYOTA

**Deployment of AI in the automotive industry  
from 2020 to 2030.**



# AR Integration for Toyota:

## AR Integration:

- Virtual car showroom: Allow users to visualize Toyota models in their real-world environment through AR.
- Customization: Enable users to personalize vehicle options and see them in AR.
- Interactive product demonstrations: Provide immersive experiences showcasing key features and functionalities of Toyota vehicles.

## Benefits:

- Improved user engagement and retention
- Enhanced online car shopping experience
- Increased customer satisfaction and brand loyalty

## Summary:

AR transforms the Toyota website into a dynamic and interactive platform, enhancing customer engagement and driving sales.



# Voice Recognition and Natural Language Processing:

Voice search and commands offer hands-free interaction, simplifying user engagement. Users can effortlessly navigate Toyota's digital platforms, accessing information about vehicles, dealerships, and services with ease.

The following Features Could be explored:

## **Voice-Activated Commands:**

Feature: Enable users to search for vehicles, schedule service, and access information using voice commands.

Benefit: Hands-free interaction improves accessibility and user experience, aligning with Toyota's commitment to innovation.

## **Virtual Assistant:**

Feature: Introduce a virtual assistant for guiding users, answering queries, and offering personalized recommendations.

Benefit: Enhances user engagement and simplifies the car-buying process, fostering customer satisfaction

## **Voice-Enabled Customization:**

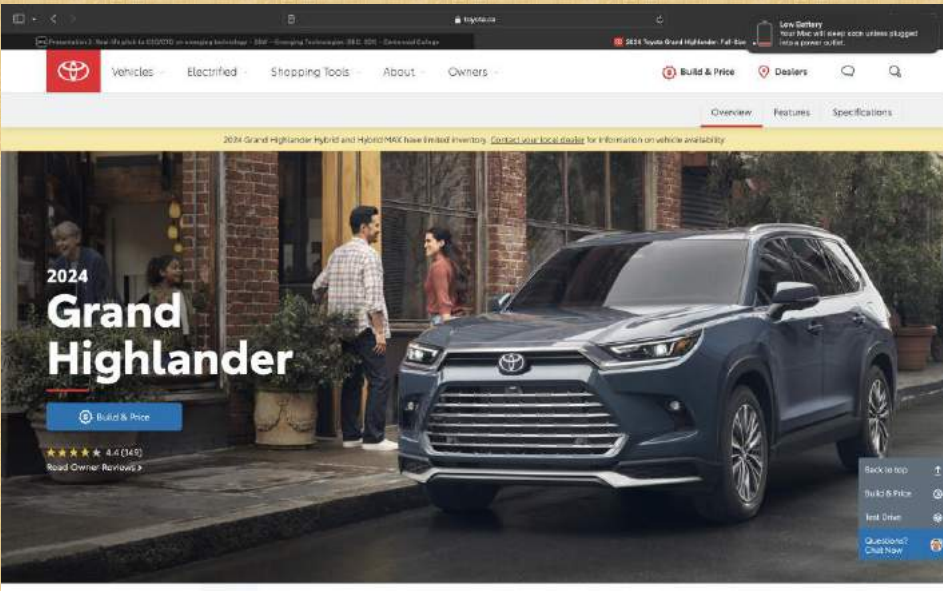
Feature: Allow users to customize vehicle preferences through voice commands.

Benefit: Streamlines customization, making it intuitive and efficient for users, leading to increased satisfaction.

## **Seamless In-Car Integration:**

Feature: Ensure compatibility with Toyota's in-car voice recognition systems.

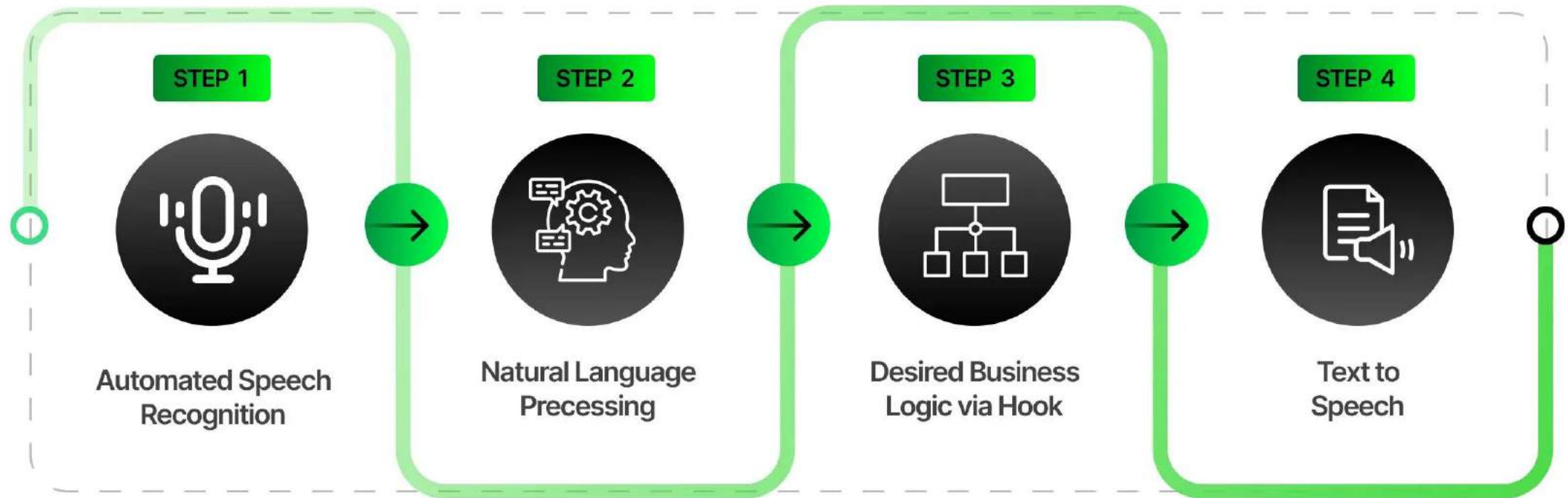
Benefit: Provides a cohesive user experience across touchpoints, enhancing brand loyalty and usability.

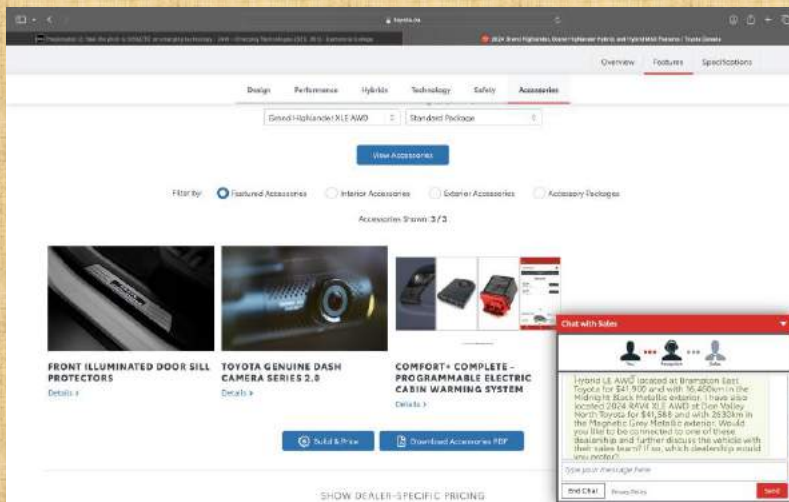




## Voice Recognition and Natural Language Processing:

### How does voice-activated AI assistants works in cars?



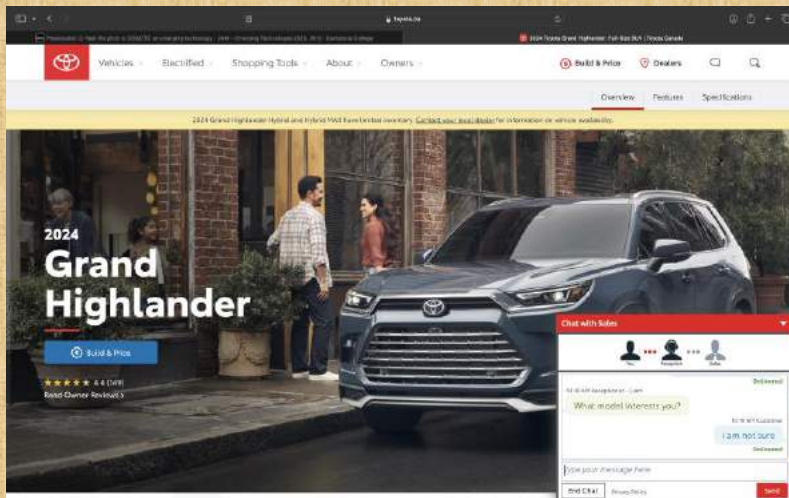


# Chatbots for Customer Support

Toyota has been integrating advanced technology into their website, application and vehicles, including connected services and possibly chatbots for customer support in some regions.

List of Toyota's current model lineup where such features could potentially be found:

Toyota Camry  
Toyota Highlander  
Toyota Tundra  
Toyota RAV4



Key Features of Chatbot Integration on Toyota Web:

- Offer 24/7 availability for instant assistance, improving customer satisfaction and reducing response times.
- Personalized Recommendations
- Product Information
- FAQ and Troubleshooting

The Chabot is responsive and helpful. It almost feels humanlike





## PWA Adaption In Automotive Industry

**Progressive Web App (PWA):** Developing a PWA for Toyota's mobile website would offer users a native app-like experience, including offline functionality, push notifications, and fast loading times. PWAs ensure reliability and engagement, especially in areas with unstable internet connectivity.

**Instant App:** Implementing an Instant App version of the price quote builder would enable users to access essential features without installing the entire application.

### **Other Features of PWA:**

Cross Platform - Single App development for multiplatform. Web access saves users time.

Push Notifications

Offline support





## PWA Adaption In Automotive Industry

Major tech companies like Google, Microsoft, and increasingly Apple, endorse and facilitate PWA development.

Google offers tools like Lighthouse for testing. Microsoft provides PWABuilder, and Apple has integrated PWA features into Safari.

Additionally, developer communities globally advocate for PWAs through events and forums, accelerating their adoption and improvement.

# Implementation Plan

## **Assessment:**

- Evaluate current website/application.
- Gather user feedback and analytics data.

## **Objectives:**

- Define clear improvement goals.
- Prioritize based on impact and feasibility.

## **Plan Development:**

- Create roadmap with timelines and responsibilities.
- Allocate resources and budget accordingly.

## **Implementation:**

- Execute plan with cross-functional teams.
- Conduct testing and quality assurance.

## **Monitoring and Iteration:**

- Monitor performance using KPIs.
- Gather user feedback for refinement.
- Iterate and update regularly.



THANK YOU