

Technology Finds Its Voice

February 2010

Technology Finds Its Voice – Overview

Voice recognition technology has been around since the early 1970s, but until recently the promise of new advances has always been greater than the realized commercial value



The convergence of the following enabling technologies is making voice recognition technology mainstream

Increased processing power to enable sufficiently fast and sophisticated software

Miniaturization and cost feasibility of devices like microphones and speakers which are embedded in devices consumers carry with them at all times

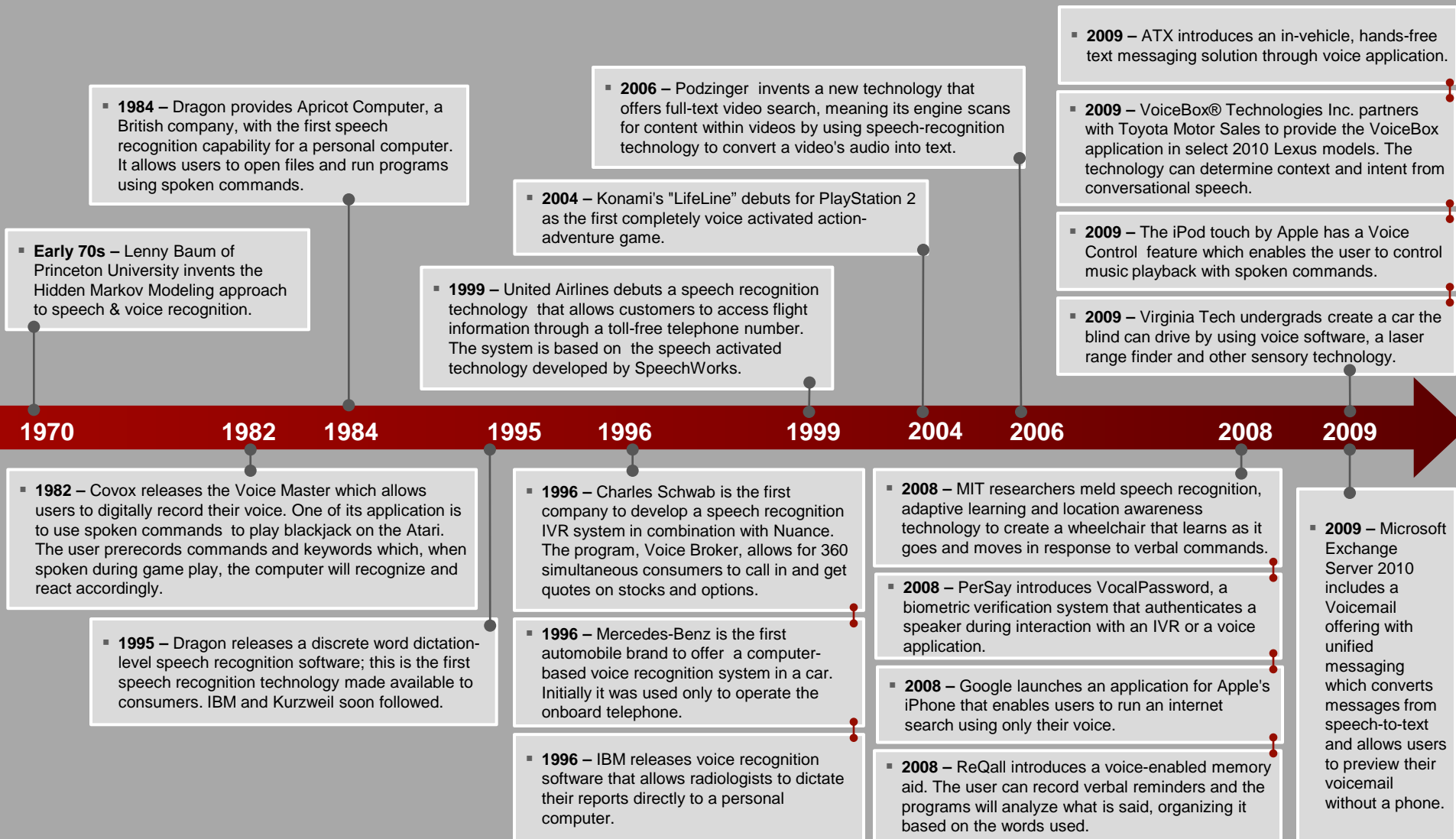
Advances in natural language processing that understands context, interprets accents, filters background noise, etc. opens up new possibilities and uses for voice technology

The recent proliferation and advancements of this technology offers huge potential for opportunities in this untapped market

This document provides a timeline overview of voice recognition technology advances

Timeline of Voice Recognition Technology

Voice recognition technology has been around for almost 40 years, but recent advancements are driving this technology to be more prevalent in everyday life. The opportunities in this space are only just beginning to be tapped



Recent Developments



Mobile Voice Search

- In November 2008 Google launched an iPhone application which enables users to search the internet using only their voice

- The software converts speech into a text file that is sent to Google and interpreted accordingly. Search results are then sent back to the phone

- The application is currently supported by Android, BlackBerry, and Nokia s60 phones and is available in English, Mandarin Chinese and Japanese

Lexus Enform

- VoiceBox® Technologies Inc. partnered with Toyota Motor Sales in January 2009 to provide its VoiceBox application in select 2010 Lexus models as part of Lexus Enform telematics system

- The Enform system allows drivers to control different functions in the car through voice commands. The advanced technology can interpret conversational English and does not require specific spoken commands. For example, the driver can say “make it cooler” and the Enform system will adjust the air conditioning in the vehicle

- Beyond air conditioning and heat the Enform platform can control the navigational system, audio system and radio as well as provide access to sports information, weather and stock quotes

Recent Developments



VocalPassword™ 6.5

iPod touch with Voice Control

- In September 2009 Apple released the new iPod touch with Voice Control feature that enables the user to control music playback with spoken commands

- The user can control what they are listening to by speaking simple commands into a microphone. For example, you can say “play artist Bob Dylan” and the iPod will play all songs by Bob Dylan

- The user can also request any song, album or playlist on the device and skip, shuffle or pause playback through voice commands
- The voice control feature supports over 20 different languages

VocalPassword

- In July 2009 PerSay Voice Biometrics introduced VocalPassword, a biometric speaker verification system

- Instead of typing a password, the user is given a pass phrase to repeat. Once the caller repeats the phrase the software compares it with the voice recording on file. If it is a match the caller gains access, if not they are directed to a representative

- VocalPassword is used to secure access to remote services, telephone and web applications. Bell Canada uses VocalPassword to authenticate users for customer support. BT Group includes VocalPassword as a part of its URU identity validation service offering

Recent Developments

Microsoft®

Microsoft Exchange 2010

- In November 2009 Microsoft launched Exchange 2010. Included in the software is Voicemail with unified messaging which allows users to read the contents of their voicemail
- The software converts speech-to-text and can be previewed directly in Microsoft Office Outlook 2010, similar to an e-mail message
- Recognized names, contacts, and phone numbers are identified with icons that users can add as contacts, call using Office Communicator, or connect with in regular e-mail

Virginia
1872
Tech



Car for the Blind

- In July 2009 Virginia Tech undergrads equipped an all-terrain buggy with technology that would enable blind or visually impaired people to drive. The vehicle was created in conjunction with a National Federation of the Blind initiative
- The semi-autonomous vehicle uses a laser range finder to detect obstacles in the vehicle's path. The onboard computer communicates what is ahead which allows the driver to divert the vehicle accordingly
- While this technology has not been released commercially it has the potential for many future applications



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