

# NATURAL LANGUAGE AS A MEANS OF UNIFYING APPLICATIONS AND FEATURES

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# DIGITAL OVERLOAD



# Digital Overload

- Too many devices, applications, features

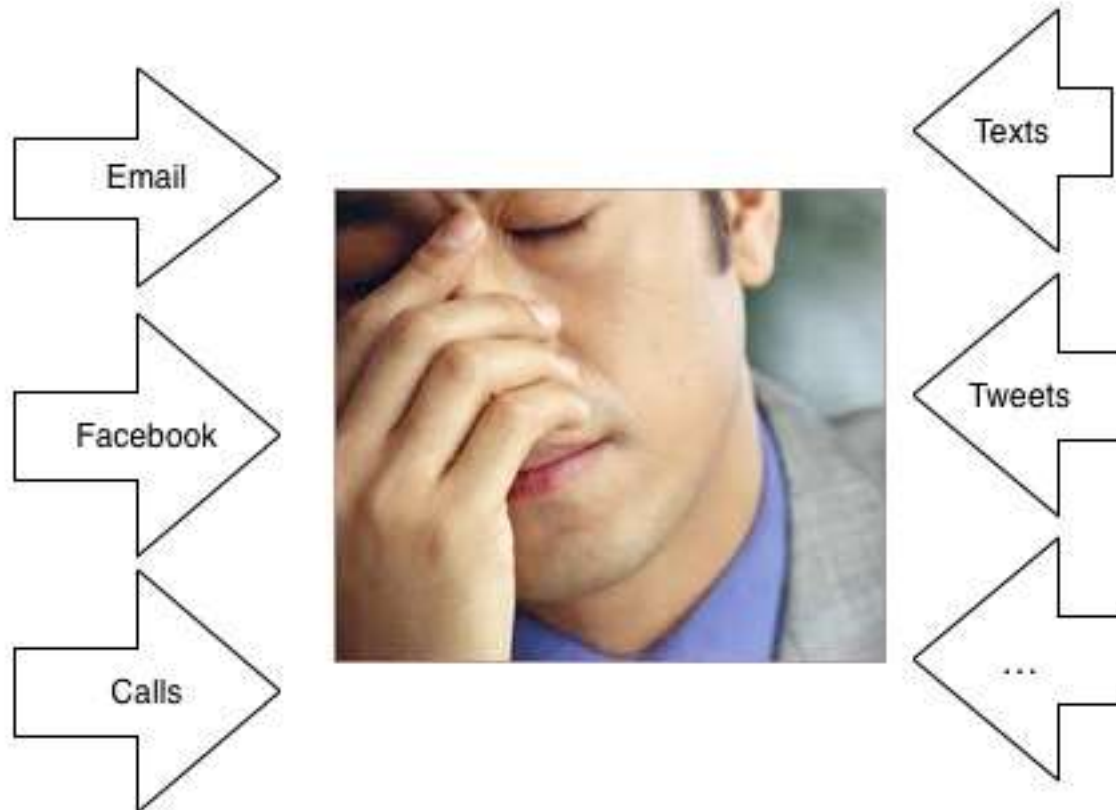


**The 50 Best Free iPhone Apps of 2013**

**The 15 Best Free Android Apps**

# Digital Overload

- Too much communication



# Too much information

- Web search for “speech recognition”

## [Speech recognition - Wikipedia, the free encyclopedia](#)

[en.wikipedia.org/wiki/Speech\\_recognition](#) - Wikipedia

In computer science, **speech recognition** (SR) is the translation of spoken words into text. It is also known as "automatic **speech recognition**", "ASR", "computer ...

[List of speech recognition ... - Windows Speech Recognition](#)

## [Set up Speech Recognition - Microsoft Windows Help](#)

[windows.microsoft.com/en.../set-speech-recognition...](#) - Microsoft Windows

Before you get started using **Speech Recognition**, you'll need to set up your computer for Windows **Speech Recognition**. There are three steps to setting up ...

## [Windows Speech Recognition in Windows Vista - Microsoft](#)

[https://www.microsoft.com/enable/.../speech.asp...](#) - Microsoft Corporation

Windows **Speech Recognition** in Windows Vista allows control of the computer by voice. Reduce reliance on mouse and keyboard and maintain productivity.

## [Nuance - Home](#)

[www.nuance.com/index.htm](#) - Nuance Communications

Customer service virtual assistants · **Speech recognition** — for people · **Speech recognition** — for business · **Speech recognition** — for physicians · Accessibility ...  
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## [M\\*Modal | Transcription, Speech Recognition & Clinical ...](#)

[mmodal.com/](#)

Provides **speech recognition** and natural language understanding technologies that automatically turns medical dictation into meaningful information and a ...

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## [HowStuffWorks "How Speech Recognition Works"](#)

[electronics.howstuffworks.com/.../speech-recognition.h...](#) - HowStuffWorks

**Speech recognition** allows people to compose documents and control their computers with their voice. Learn about the basic types.

## [Voice Recognition Software for Windows - Free downloads and ...](#)

[download.cnet.com](#) › ... › [Business Software](#) - Download.com

Results 1 - 10 of 81 - The most downloaded **Voice Recognition Software** ...

Speakonia.	Have text, HTML pages, and the Clipboard read aloud	Version 1.3.5
Dragon ...	Control your PC using speech recognition	Version 12

## [Voice Recognition](#)

[www.hitl.washington.edu/.../I.D.2.d.VoiceR...](#) - University of Washington

by J Baumann - Cited by 8 - [Related articles](#)

**Voice recognition** is the process of taking the spoken word as an input to a computer program. This process is important to virtual reality because it provides a ...

Keep it simple...

# Just say or type what you want



Are there conferences that cover speech recognition in mobile devices?

## [Two Trends That Will Reshape Our Relationships With Mobile Devices](http://www.prweb.com/releases/2014/01/prweb11477795.htm)

[www.prweb.com/releases/2014/01/prweb11477795.htm](http://www.prweb.com/releases/2014/01/prweb11477795.htm) -

Jan 13, 2014 - The Mobile Voice **Conference** is organized by the Applied Voice Input Output ... technologies such as **speech recognition** into commercial reality for 25 years. The **conference covers** natural interaction with **mobile devices**, with ...

# The Personal Assistant Model

- Call Mom.
- Launch MyFavoriteApplication.
- What's the capital of Indonesia?



# Skip steps

- How do I get from here to that restaurant?
- Text Alison I'm on my way.
- Remind me to call Jim tomorrow.
  - What time tomorrow?

# General vs. Specialized Assistants

- Specific to
  - Company
  - Application
    - Help (“How do I...”)

# Web browser analogy

- General PA: Web browser
- Specialized PAs: Web sites

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- General PA: Web browser
  - General PA will be able to invoke specialized PAs upon request
- Specialized PAs: Web sites

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- General PA: Web browser
  - General PA will be able to invoke specialized PAs upon request
- Specialized PAs: Web sites
  - Every company will eventually need a company PA, just as they need a company web site today

# The Productivity Paradox

- Rapid automation by technology is reducing jobs and their quality faster than the workforce can adapt

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# The Productivity Paradox

- Rapid automation by technology is reducing jobs and their quality faster than the workforce can adapt
- If there aren't jobs or median income drops, where are the buyers?
- A deeper discussion
  - Meisel, *The Software Society: Cultural and Economic Impact* (2013)
  - Brynjolfsson and McAfee, *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies* (2014)



# A tighter human-computer connection

- Natural language and mobile devices
- Work *with* machines instead of against them

# A tighter human-computer connection

- Natural language and mobile devices can be part of the solution
  - Creating a human-computer partnership that leverages the advantages of both

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# A tighter human-computer connection

- Natural language and mobile devices can be part of the solution
  - Creating a human-computer partnership that leverages the advantages of both
  - On-the-job aid and learning
  - Improving education with technology
- Specialized personal assistants for these tasks

# A human-computer partnership

- “What would life be like, if through the use of their assistants, everyone’s effective IQ jumped by 50 points?”
  - Vlad Sejnoha, Nuance CTO, in a *Wired* blog

Sooner...or later

