

NTTdocomo's mobile phones for persons with disabilities

2009/08/25 NTT DOCOMO

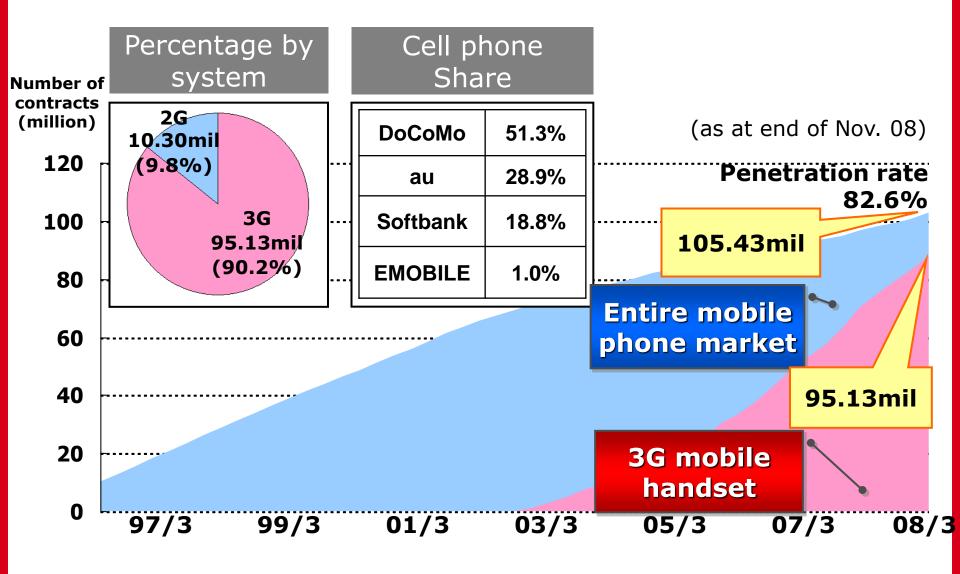
Ryuji Nagata



- **1. Japanese Cell Phone Market**
- 2. Universal Design Approach in NTT DOCOMO
- 3. What is Raku-RakuPhone?
- 4. Features of Raku-Raku Phone
- 5. Bone conduction receiver "Sound Leaf"



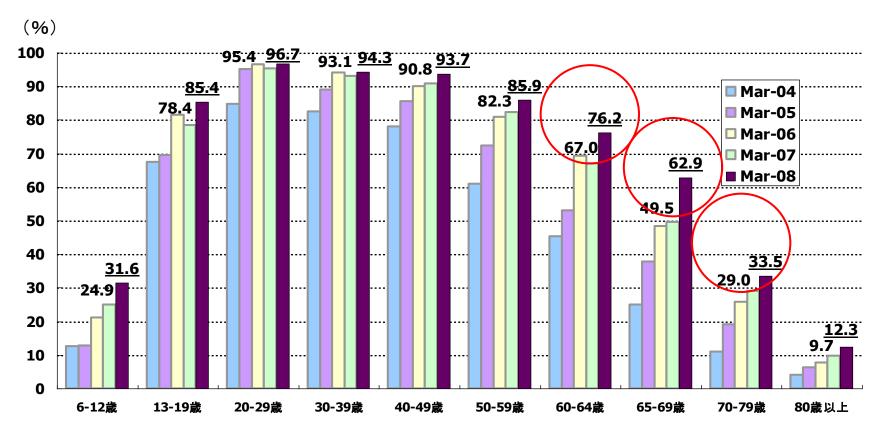
Japanese Cell Phone Market



* Source: Telecommunications Carriers Association (TCA), Publicly announced figures

Trend of Cell Phone Usage Rates by Age

- •The Japanese total cell phone market is trending toward saturation.
- For the over-50 age bracket in particular, mobile phone market growth has been remarkable.



Source: Report on Trends in Communications Use, Ministry of Internal Affairs and Communications (MIC)



Universal Design Approach in NTT DOCOMO

Action Based on the fundamental concept of universal design.

Pursue Easy for anyone through our products, stores and services based on UD with warm-hearted.

Cell Phone	Stores	Service
Design product reflecting customers voices to bring a cell phone to match your needs	Serve customers to make them comfortable	Provide services with pricing plans and features fits customer needs



DOCOMO's Hearty Plaza



We exchanged opinions with people with disabilities and universal design authorities from the stage of design and construction and developed enriched service menus and outlet design planning.

Interior, DOCOMO Shop Marunouchi in Yuraku-Cho, Chiyoda-Ku, Tokyo

Full services menu



Sign language staff



Concierge service



Consultation

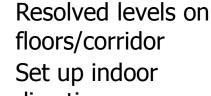


English tool, brail tool





Shop design

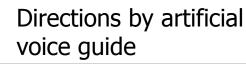


directions

Set up omni-counter



Set up omni-toilet



^{["DOCOMO Hearty Plaza"} won a 2004 Good Design Award

Concepts of Product Development

Usability

Make mobile phone functions easier to use and to understand

Accessibility

Expand our base of mobile phone customers, regardless of age or capacity.
Raku-Raku Phone

Interface

Limits on usability of mobile phone by cost or technology. Bridge to external systems.

Adaptation

Use the interface to provide dedicated devices that suit our customers.

- 1. Easy access to information
- 2. Product lineup with good design at reasonable price
- 3. Features responsible to individual needs
- 4. Understandable and usable user interface
- 5. Consistent user interface to keep away missoperations.



What is Raku-RakuPhone?

Basic features

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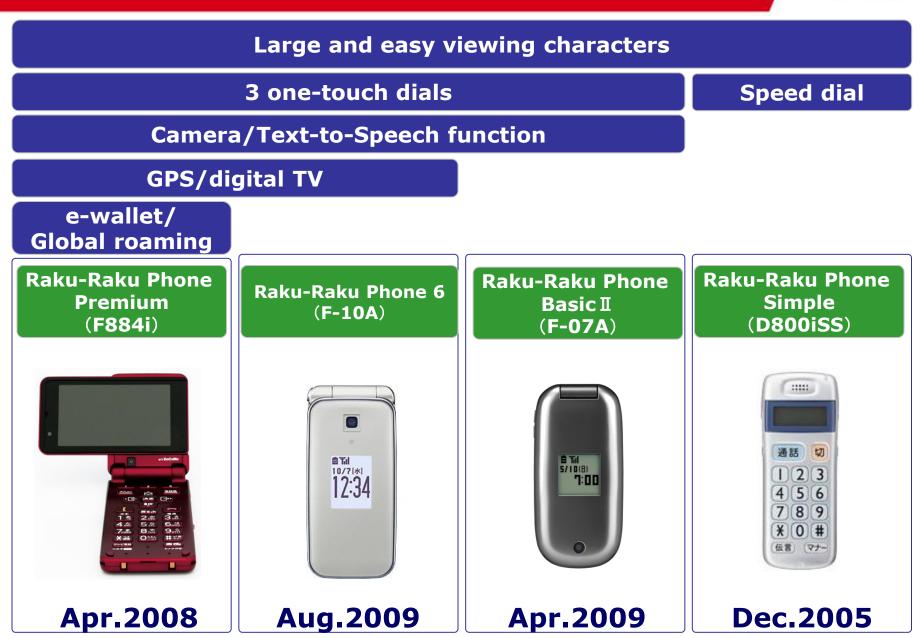
Large screen & large letters Adoption of a large 2.8-inch large LCD Large display of letters

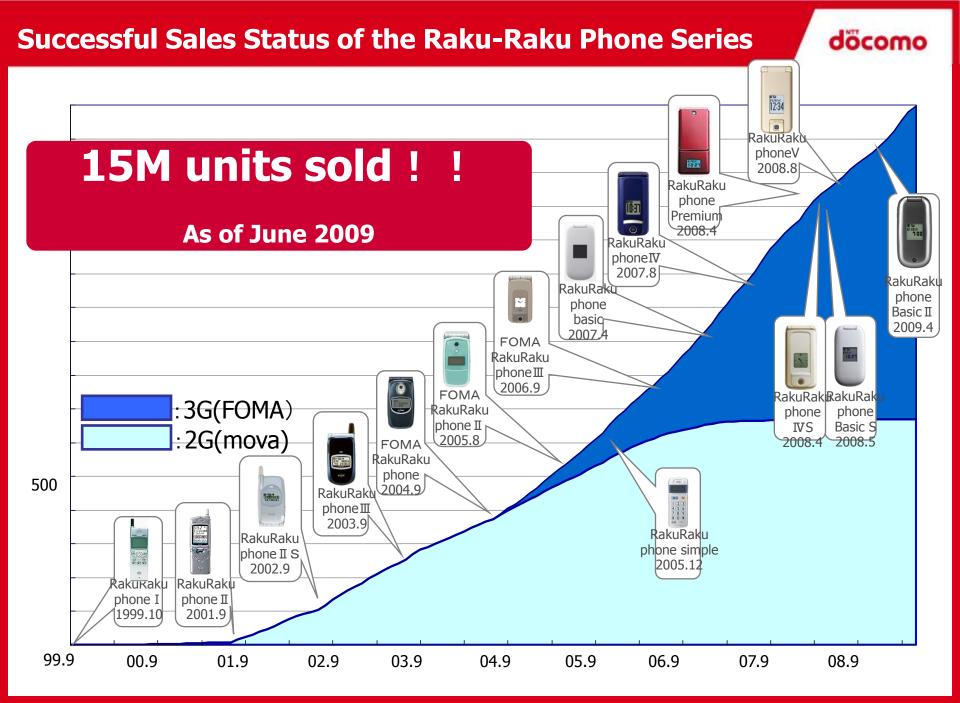
3 one-touch dial buttons Calls can be made using just by one button

Voice reading function Content of mail can be read aloud

10/7 (*) 12:34

Raku-Raku Phone Current lineup







Features of Raku-Raku Phone

Voice input mail

Easy to write e-mails using voice input

- 1. Start i-mode mail function
- 2. Press a voice-input button
- 3. Run voice input mail program
- 4. Speak a message toward handset microphone
- 5. Speech to text conversion
- 6. Send i-mode mail



Points; Japanese language have many homophones so the speech to text has been extremely difficult for a long time.



"Bibulio-Net" -Utilization of "DAISY"-

the network talking books distribution Service

Portable DAISY player is common for visually impaired people. But DAISY player has not been embedded in cell phone yet.



"Bibulio-Net" is provided by JAPAN BRAILLE LIBRARY originally.

JAPAN BRAILLE LIBRARY provides digital talking book contents. 12,395 titles (Mar.2009)

How to use "Bibulio-Net" mobile phone version

- 1. Download JAVA application from the site
- 2. Run the downloaded JAVA application and select library menu
- 3. Choose your favorite title and download the contents
- 4. The certified visually impaired people can enjoy them free

döcomo

Title Example

door" by Helen

"The open

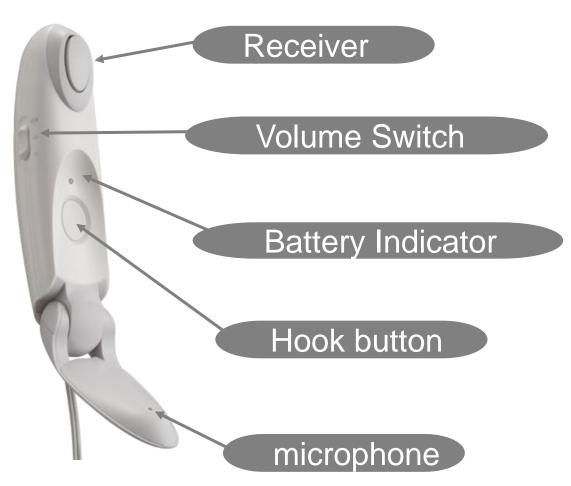
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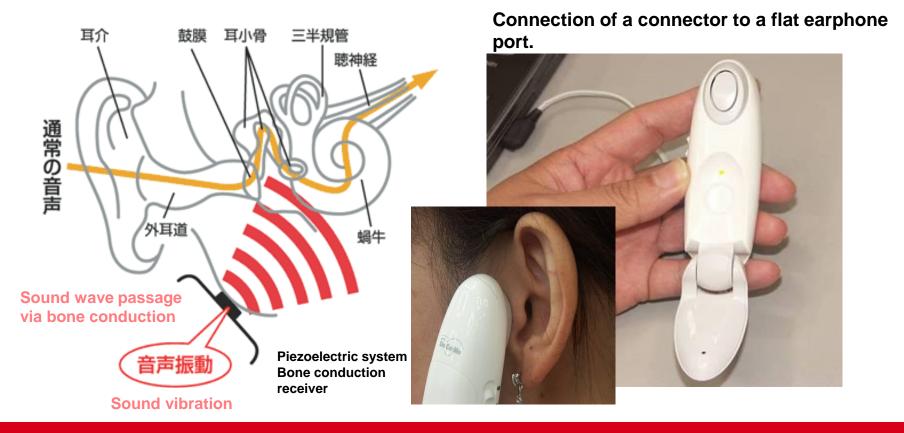
Bone conduction receiver "Sound Leaf"

SoundLeaf



Bone conduction receiver "Sound Leaf"

A bone conduction receiver allows effective use of telephone calls in noisy locations or for those who have problems with hearing disability due to their ages. It transmits the sounds from the bone to the auditory nerve.





Thank you for your attention!



docomo