



WIRELESS BROADBAND NETWORKS **-POLICY AGENDAS FOR DEPLOYMENT** **OF WBN IN RURAL AREAS**

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SOCIAL COST AND SOCIAL VALUE

- Rural communities that do not have a high-speed Internet access are at a severe economic and social disadvantage ranging from simple information acquisition and purchasing goods and services, to interacting with various individuals and groups in the wider processes of governance.
- Digital Divide to Digital Opportunity as well as Digital Inclusion by WBN



SOCIAL COST AND SOCIAL VALUE

WHO PAY COST FOR WHAT ?

- Benefits of online communication in the rural areas may be relatively greater than in urban areas
- Providing mobile broadband coverage is far more cost-effective than installing a new fixed-line broadband connection.
- Social impacts of broadband connectivity could be potentially much larger than the private returns of operator.
- Low cost and low price by cost –sharing such as infrastructure sharing/Tower sharing



Easy for everyone to view and use.



受信 12:34
受信箱
お久しぶりで
すお元気で
すか?今度の
らくらくホン
は、行間が広
く、読みやす
い。

*Screens are simulated.

Really? The kids will really be surprised when they get an email from their grandpa!



All you have to do to send an email is to speak into the phone.



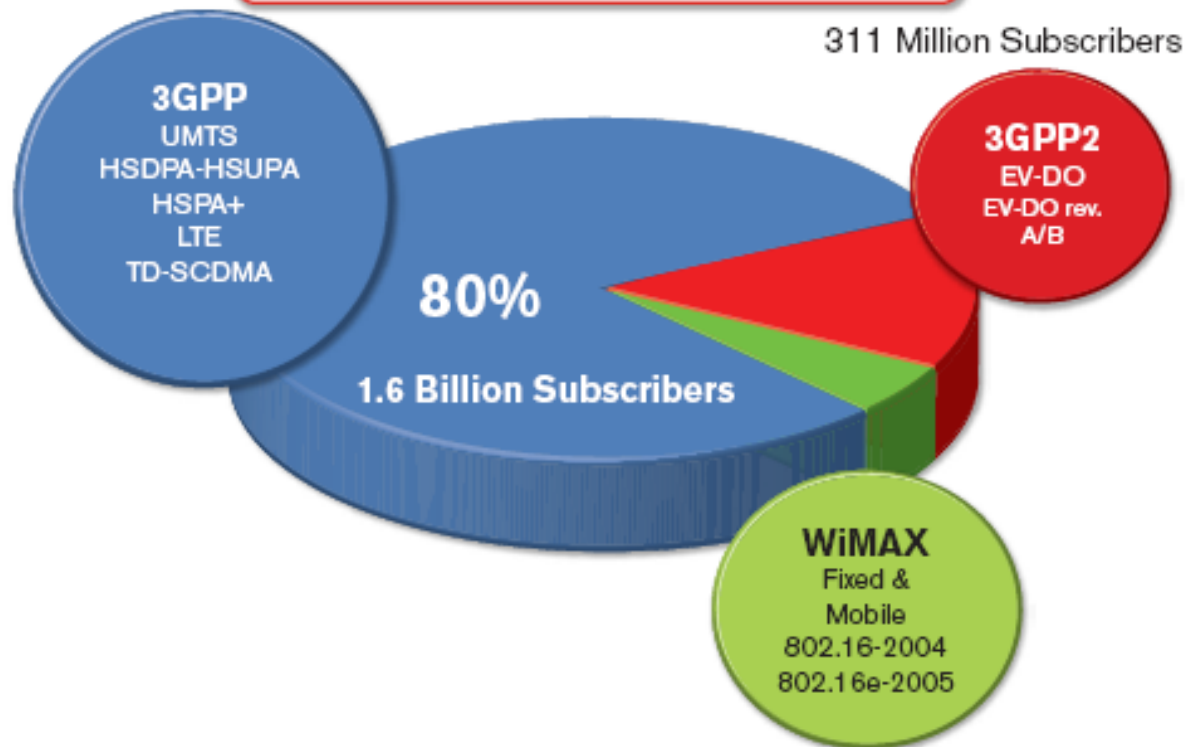
Source: NTT DoCoMo

ACCESSIBILITY AND USABILITY

ACCESSIBILITY BY WIRELESS NETWORKS-70% OF TOTAL POPULATION USE MOBILE COMM

Global 3G+ Subscribers Forecast by Technology Family

Over 2 Billion 3G+ Subscribers by 2013



Source: Informa Telecoms & Media, March 2009

103 Million Subscribers



USABILITY: UNIVERSAL DESIGN AND GLOBAL STANDARD

Visual Considerations	Easy-to-view menus (enlarged menu, different color schemes) Easy-to-read text (enlarged text, different color schemes)
Sound Considerations	Noise cancellation function, Automatic volume adjustment
Operational Considerations	Functions that make it easy to receive calls (any key answering, etc.) Easy input (voice recognition, one-touch dialing, etc.) Easy opening and closing (one-push opening)
Comprehension and memory considerations	Easy-to-understand menus (simple menu) Easy-to-understand operations (same keyboard layout for entering text, help functions, etc.)
Security Considerations	Features that can restrict the function to voice calls and GPS Filtering service that prevents access to unwanted information

Source: based on NTT DoCoMo, au KDDI

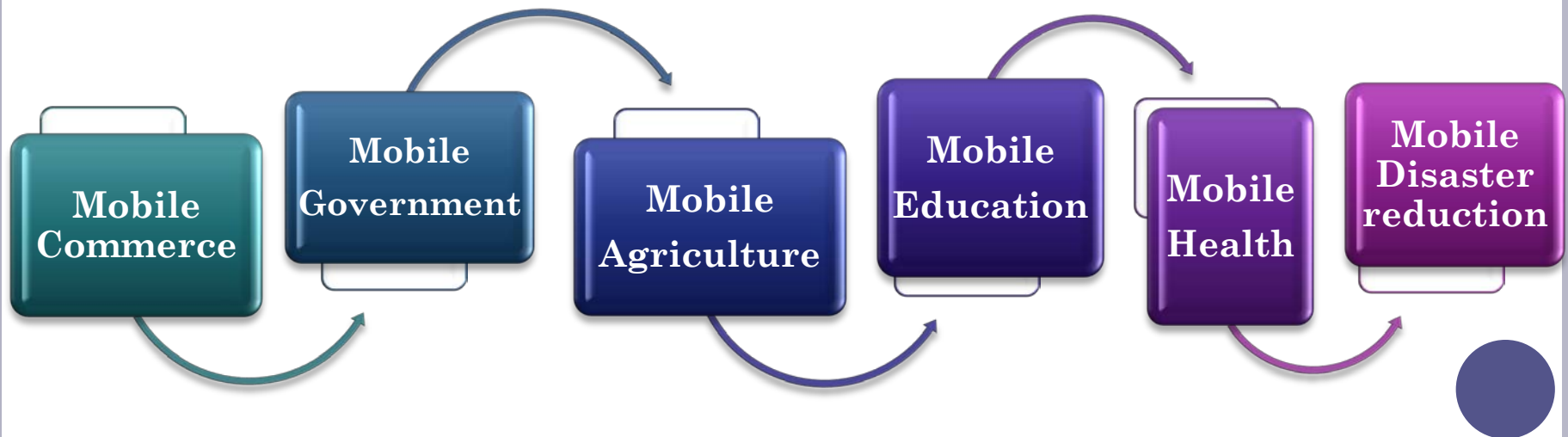


MOBILE CONTENT AND APPLICATIONS

WHY WE NEED WIRELESS COMM ?

MORE MOBILE CONTENT AND APPLICATIONS

- **Develop and integrate** information resources, improve information gathering channels, and increase timely, relevant and contextualized content supply
- **Expand MBB** development impact by targeting the broader range of rural citizens with diverse information needs



M-GOVERNMENT AS COMPLIMENTARY TO E-GOVERNMENT UNDER E/M- DEMOCRACY AND INCLUSION

- Streaming **audio of meetings**
- Streaming **video of city Council Meetings**
- Neighborhood Specific Info
- **Tracking progress of bills** as they move through legislative process
- **M-consultation**, opinion polls
- Action requests and complaints
- Application and payment for **permits and licenses**
- **Tax-applications**
- **Job-applications**
- Information request and retrieval



M-AGRICULTURE IN THE RURAL AREAS

Mobile phone based tools improve efficiency and monitoring by:

- **Capturing transactions** between producers and cooperatives, in order to monitor remote inventory levels, and document the price paid to the producer.
- **Capturing the condition of farm parcels**, using a combination of paper, text, audio and images
- **Delivering expert consulting**: cultivation techniques, on-time diagnosis of a disease , marketing of products, new production standards
- Delivering information about **agricultural policy**, funding opportunities for purchasing equipment, **weather conditions**, **emergencies** such as **disease outbreak**, extreme weather conditions.

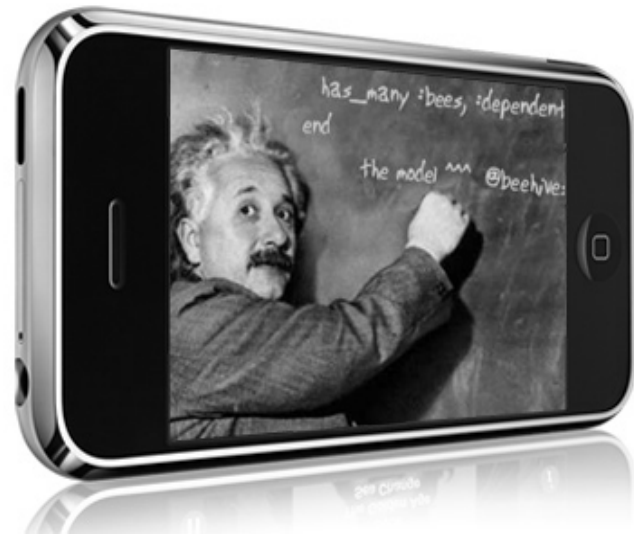


M-EDUCATION

NEED STRONG BATTERY AND BIGGER DISPLAY

Constant access to information— **in the classroom and beyond:**

- learning content and materials (audio and video podcasts, online class content etc.)
- library services
- registration for participation in courses
- Scholarship applications
- Mobile synchronous learning
- Mobile context-aware learning



Source:

www.impactlab.com



M-HEALTH

-TELE MEDICINE, HEALTHCARE UNDER RURAL AND AGEING COMMUNITIES

- remote monitoring
- wireless medical prescriptions,
- emergency room,
- mobile hospital applications,
- electronic medical record
- measuring, storage and transmission to a database of patient's health statistics during

daily routines, emergencies, the treatments of chronic illnesses, in case of elderly people who live on their own or with other elderly people.



Source: <http://www.psfk.com>



M-DISASTER REDUCTION

-EMERGENCY COMMUNICATION FOR ANYONE, ANYWHERE AND ANYTIME

- Disaster alert:
Information about disaster, disaster casualties ,
closest hospitals, shelters etc.
- Disaster Message Board Service: allows
subscribers within the disaster area to place and
check messages in order to inform relatives and
associates of their situation during a disaster.
- Services allowing sending position data with
GPS during disaster



The left side of the slide features a vertical stack of four stripes in shades of blue and grey. To the right of these stripes are five circles of varying sizes, also in shades of blue, arranged in a descending, staggered pattern.

BROADBAND FOR ALL UNIVERSAL SERVICE

AS KEY POLICY AREAS

UNIVERSAL SERVICE ON MBB

- Support broadband Internet as a national "universal service" standard



- transform an existing Universal Service program so that it would subsidize mobile broadband service in poor and rural areas by US Fund



GLOBAL STANDARD

-3G,LTE,WIMAX,SMARTPHONE

- Diffusion of broadband mobile services require **coordination** among the different actors who have specialized knowledge and resources.
- **Global Standard** plays a key role in coordinating actions among different actors in order to mobilize the resources that are necessary for successful innovation and diffusion of broadband mobile services.
- **Benefits of GS:**
 - include the ability to roam globally with interoperability
 - economies of scale,
 - widespread acceptance by operators, complementary services,
 - variety of competitive handsets



The left side of the slide features a series of vertical stripes in various shades of blue and grey. To the right of these stripes, there are several blue circles of varying sizes, some overlapping the stripes, creating a decorative, bubbly effect.

USER AWARENESS AND SATISFACTION STUDIES

USER AWARENESS

- Public awareness initiatives to generate acceptance
- Financing by US Fund and PPP for public usages such as Disaster, Education, Government and Agriculture
- Local intermediaries
- Information agents
- Training programs
- Evaluation and Monitoring model



PARADIGM SHIFT TO GOVERNMENT 2.0 FOR STAKEHOLDERS NEED AND SATISFACTION STUDIES

- **Collection of user feedback** and evaluations of initiatives to make offerings more **relevant**
- **Involvement of users** in participatory processes to define their **information needs** to aggregate **service packages** accordingly
- Prioritized applications and cost control under scarcity of resources
- Need more **CIO** (Chief Information Officer) in this field



ROLE OF UNIVERSITY ON WBN

- Study by **ITU** team on comprehensive socio-economic effect on Rural Community Development by WBN pilot/testbed project as the best practice in each ITU developing country
- @ Achieving **Education for All** by WBN
- @ Implementing Socio–Innovation as well as **Techno-Innovation** by **CIO**
- @ Consolidating and extending R & D on Application and Usages with **users' needs**
- @ Global contribution by Waseda University in cooperation with both Japanese government and companies
- @ Networking the major universities in the field of WBN by ITU Initiative



THANK YOU !!

o Contact Information

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