



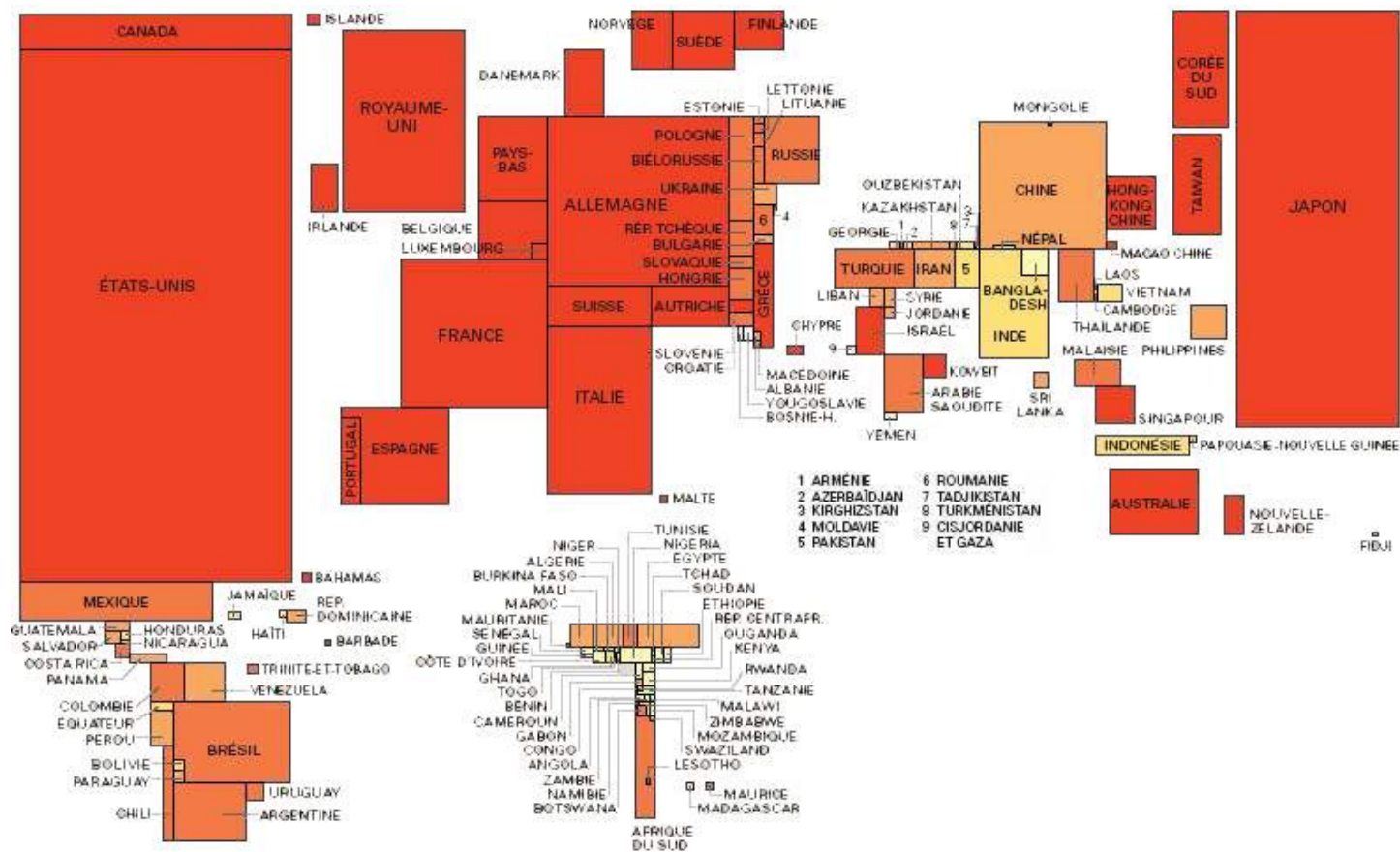
LIFT08 – A Glimpse of Asia

The future is in Asia ... let's start with
mobile telecommunication in China

Marc Laperrouza
February 7-9, 2008
Geneva, Switzerland

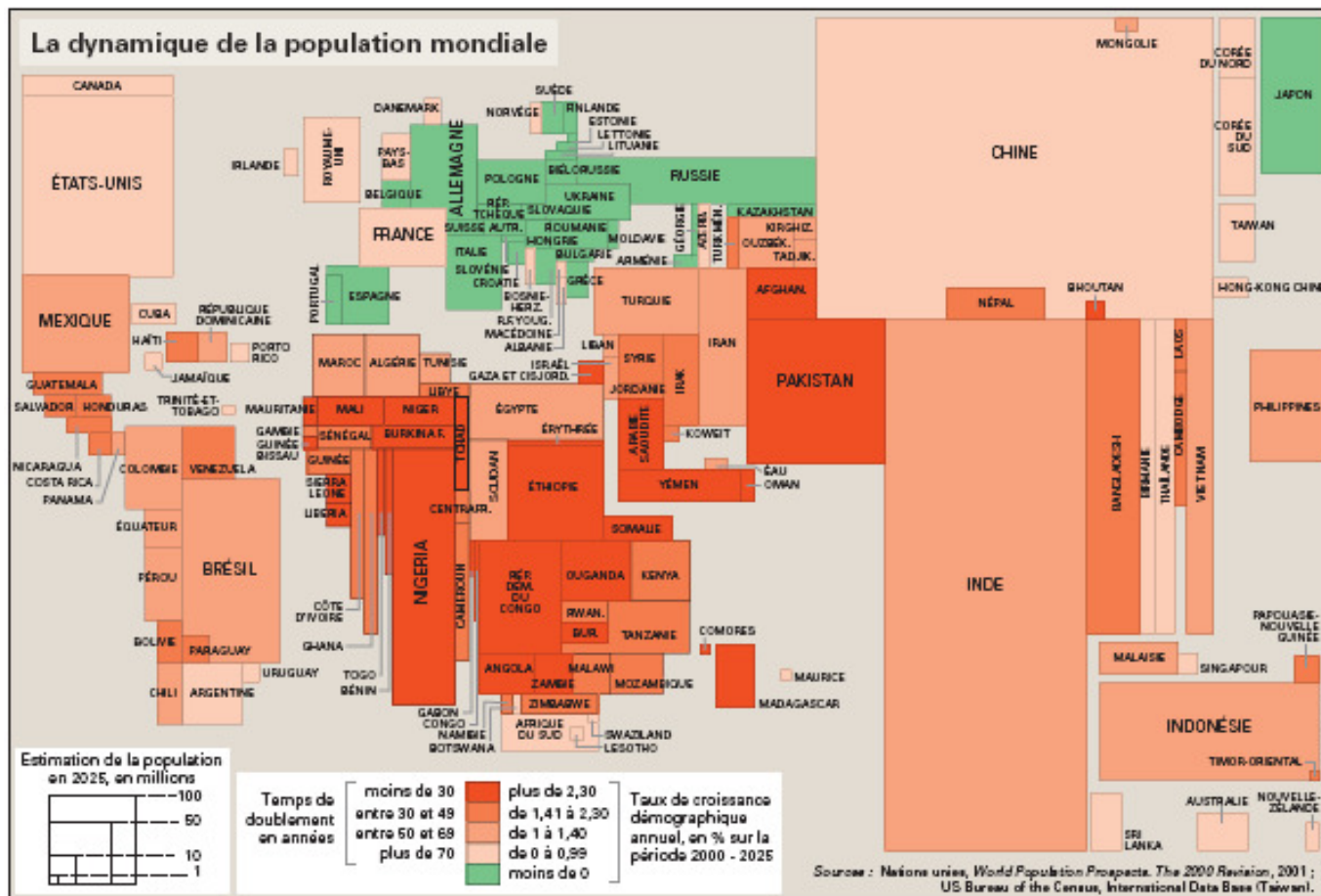
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Weltanschauung (1)



Source: IFRI (2004)

Weltanschauung (2)



Source: IFRI (2004)

3 Key Messages

It is the first time in history that a telecommunication technology has **more users in developing countries** than in the developed world

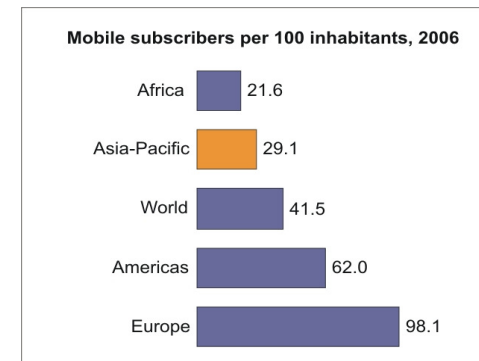
The **war for [telecommunication] standards** will also be waged in Asia

Mobile phones mean **radically** different things to different people

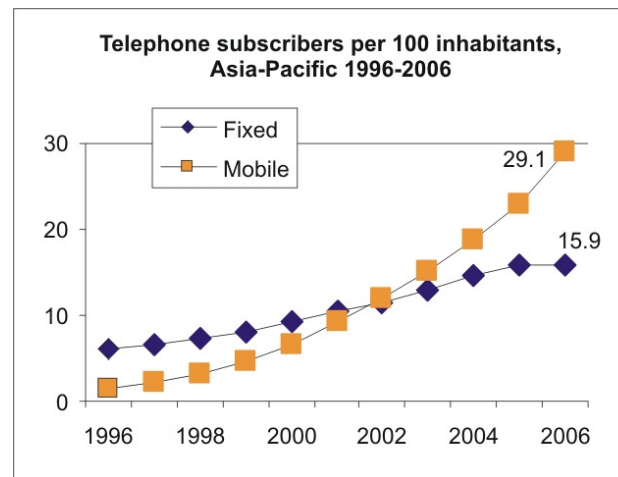
CONTENT



- Overview of mobile communication in Asia
- Country stories and core themes
- Key (Chinese) take-away



Overview of mobile communications in Asia



Less than 1% in Myanmar
(Σ 242'000 mobile)

More than 101% in Hong Kong

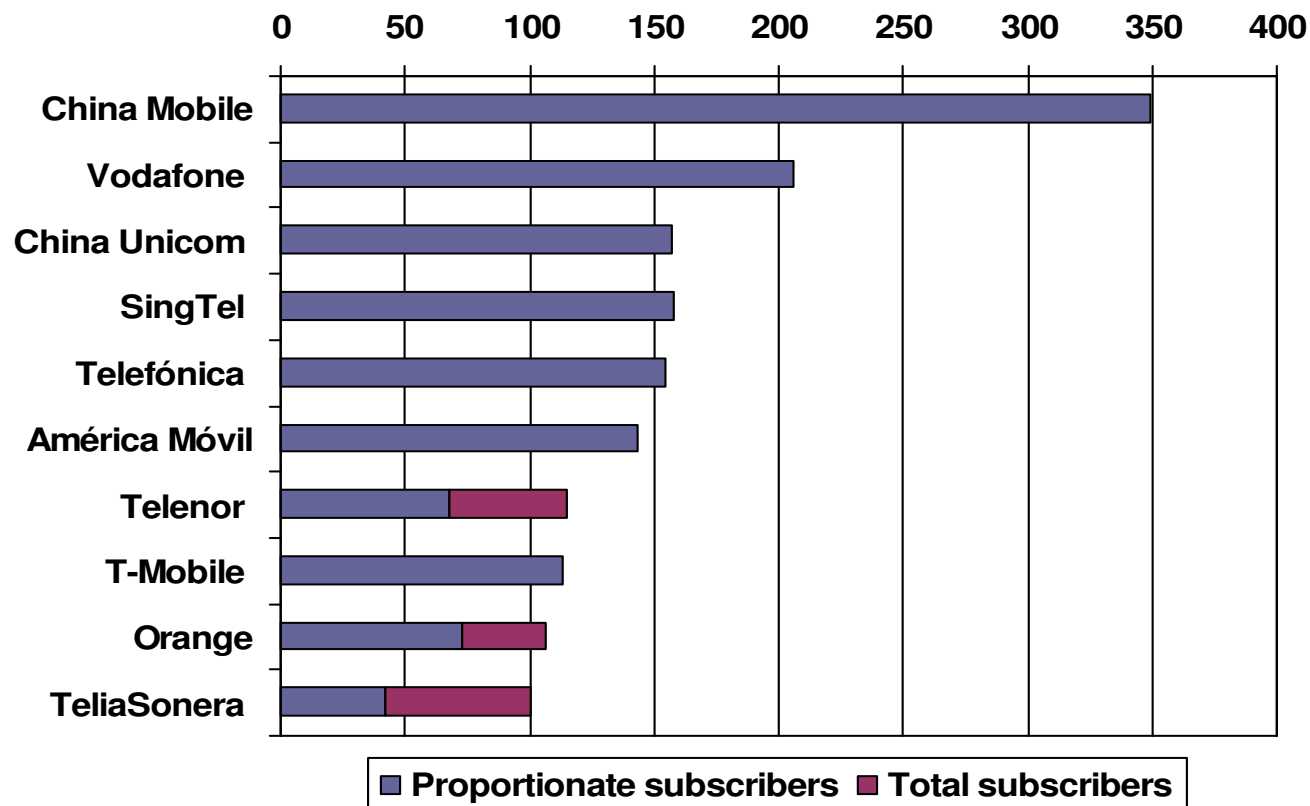
ARPU is USD40 in the US and USD 4
in India.

CM's ARPU is 11 USD with 50% EBIT

- 2.5 billion mobile users worldwide \pm majority (59%) in developing countries
- Mobile users grew by 500 million in past 12 months \pm 25% from China and India
- Mobile phone penetration is expected to outstrip computer penetration in Asia for several years

Despite a large variance in penetration rates, it is the first time in history that a technology has more users in developing countries than in the developed world

Top 10 mobile operators in the world in 2007



3 out of 5 world's largest mobile operators are in Asia
Sometimes size does matter!

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China's mobile market: Never-ending growth?

- 5-6 million new customers for China mobile **per month**
 - 0.4m in contract and 6.1m in pre-paid
 - China Telecom **loses** 1.48 million users in December
- Estimates are that 80-100 million mobile phone users logging onto Internet via their handsets every month
- Mobile users send short messages around 33 billions times a month
- Google just partnered with China Mobile to make it the default search engine ☒ convergence between mobile and Internet
- Starting with location-based services (LBS)
- Every year China throws away millions of mobile phones ☒ Nokia, Motorola and China Mobile have already taken steps to recycle them



Highest ambitions



And the environment?

Also home of 小灵通 (aka xiaolingtong or “little smart”)

- Essentially a cordless phone with limited roaming capability ￼ not everybody is born to be a jet-setter/LIFTer
- Far simpler to implement and deploy than GSM
- Explosive expansion of subscribers until around 2005 (close to 90 million users but on the way down)
- Way into the mobile market for operators without a mobile license (SMS + data)
- Much, much cheaper than traditional wireless ￼ essentially cost of fixed-line



**Some [relatively] obsolete technologies can survive in niche markets
(business model, government policy and market demand)**

Low-cost communication with limited mobility

The whole story of TD-SCDMA: When Vaporware* goes nowhere...

- TD-SCDMA, a government-backed technology [from nowhere] was supposed to be the dominant 3G standard
 - Doubt as whether complications are technical or regulatory
 - Operators and manufacturers are looking for more mature technologies \pm
China may not have 3G for the Olympics
- But it faces the challenge of going back to the drawing board before meaningful commercialization
- In any case, the success of TD-SCDMA in mature markets is heavily dependent on market forces \pm It will face tough competition outside Mainland China



**The State is never far away when it comes to technological development
but it does not always ensure success**

[it also holds for South Korea]

* announcement of future products to deter rivalry

The Olympic leapfrog (from 2G to 4G)?

- Wireless broadband is a new growth area for telecom operators
- In-fighting between government agencies does not bode well for mobile TV
 - SARFT with own mobile TV standard (CMMB) testing in 35 cities
 - Alternative standards are backed by rival Ministry MII
- Some Chinese technocrats have realized that China has passed the time window for 3G and must now focus on 4G
- 4G standard proposed independently
 - Based on the development of TD-SCDMA (40% of current 4G technologies could be integrated into TD-SCDMA technology evolution)
 - Scheduled to start commercial use **in 2012**



War for standard is really about a war for intellectual property

**Battle is waged in a number of countries on a number of technologies
(Mobile broadcasting technology ⊗ T-DMB - Korea, wireless broadband ⊗
WiBro - Korea, 3G ⊗ TD-SCDMA – China)**

Some really « innovative » handsets...



Motorola's Feng Shui Phone



To make sure that mobile phones are a danger to your health



Nokian, Snog Ericsson, Aifung and the (almost)likes

And some « innovative » usage...

- **Crowd shopping/** team buying (tuangou) or when strangers organize themselves around a specific product or service - mobbing the seller and negotiating a group discount on the spot



- Government officials in central China have urged mobile phone-wielding citizens to **send rousing "red" text messages instead of blue jokes**, but the response has been more derision than revolution

- Chinese mobile phone users can now download film **clips of the Korean War** and stirring military anthems to celebrate the founding of the People's Liberation Army



**Innovation is moving toward business models and marketing tactics
instead of technical features and functions**

Super Girl or when critical mass becomes critical mess

- In 2004, 400 million people watched Super Girl (Chinese version of Pop Idol)
- Viewers were able to participate in the judging process by sending text messages with their mobile phones and **vote** for their favorite contestants
- Over 800 million text messages were sent during the 3rd season of Super Girl ￼ fan clubs began to appear throughout the country
- The rush of mobile votes sent the government into a panic ￼ severe restrictions were implemented, preventing the show ever happening in the same format again



Did the idea of a democratically decided pop show prove too much for a one-party state to countenance?

Can technology be a threat?

Let's not forget the mobile divide

- Penetration in rural areas is still around 20% compared to 40% in cities
- Mobile rural bank system (project by Bank of China)
 - If bank infrastructure: > USD 2 billion (for 130 terminals & ATMs per 1M people)
 - Cost of mobile rural bank system: USD 40-60 million
- China Mobile's **Agricultural Information Service** provides advice on how to raise crops and animals, as well as weather forecasts, news, and information on market prices for various products
 - The information can be accessed using **phones or the Internet**
 - Subscribers pay **USD 0.25 per month** (RMB 2) for each category of information they receive
 - At the end of June 2007, the service had **24.8 million subscribers**



The future of the market is in the countryside

Is there any difference?

- Facebook, MySpace or local Chinese sites like Xiaonei or 51.com have failed to establish big national followings; instead...
- Mobile instant messaging (IM) rules
- Low proportion of home PCs has made the mobile phone the preferred Internet-access device
- Chinese seem to prefer IM as opposed to ordinary e-mail, in which you never know when your correspondent might respond
- During the New Year, Chinese would visit one family at a time and have face-to-face greetings, then send greetings cards, then make a phone call 𐀀 today they send SMS (China Mobile exchanged around 5 billion in 2007)



By using their mobile phones the Chinese may be leading the way to a new kind of social Internet

Potential to shape Web commerce and culture far beyond the country



A quick tour of some of Asia's most innovative mobile services

- **India:** Hold your mobile against any television, music system or radio playing your favorite song for 20 seconds
- **Hong Kong:** « Follow Me, Follow You » by Hutchison allows you to monitor the movements of spouses by mobile phone for USD 3.50 a month
- **Taiwan:** Nokia and Chunghwa test handsets for Visa payments (inc. low-value transactions)
- **Japan:** In 2007, five out of the top ten bestselling (printed) books in Japan were originally released as mobile books... They were mostly love stories + Use of mobile handset to read information from special barcodes (QR code) + wallet phone
- **Korea:** Phones with embedded RF readers give users vital information about products



There seems to be no end to the social questions these novel services raise

Bangladesh: Village phone ladies or when good development is good business!

- GrameenPhone created in 1997 ￼ largest cellular network – 98% coverage and 15 million mobile subscribers in September 2007




- Village Phone Program (VPP) ￼ cooperation between Grameen Telecom, Grameen Bank and GrameenPhone:
 - 260,000 VP operators in over 50,000 villages
 - Provide telecommunications facilities in remote, rural areas where no such service was available before
 - Putting cell phones in the hands of the rural poor, many of them women, who had never seen a telephone before
 - Owner-operated pay phone
 - A member of Grameen Bank takes a loan (USD 200) to buy a handset and a GP subscription and is trained by Grameen Telecom on how to operate it.



**Made market information accessible to all
Substantially empowered women from rural households**

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Key (Chinese) take-away

- In less than 15 years we moved from a world where half of the people had never made a phone call (1994) to a world where one technology (mobile telephony) is more present in the developing world than in the developed world
- Mobile communications will be the field for the next **war of standards**
 - TD-SCDMA in China
 - WIPI in South Korea
 - 4G and future technological developments \pm ripe for political games at ITU
- When it comes to technological innovation, strong **state intervention** is never far away
 - Ensure development of domestic technologies/IP
 - But let's not forget Qualcomm (UMB) or the Europeans (LTE)
- Mobile communication means radically **different things to different people**
 - Gaming and online music (Japan and Korea)
 - Making a living or a way of improving their living conditions (Bangladesh)

Mark His Words...

“If someone doesn’t have a mobile phone they will lack basic functions of what it is to be human. In the end, *everyone will have a least one cell phone*, in China and everywhere.”

“We know *who you are and where you are!*”

Wang Jianzhou, Chairman China Mobile

Cell Phone, or when a movie gets out of control



- Many wives strongly believed their husbands cheated exactly like in the movie
- They checked the messages of their husbands' cell phones to find out if there are any messages or calls from possible mistresses
- Many cheating husbands were caught this way in real life

Mobile phones have become a cultural object and subject