Mobile Smart Phones

# Reflection of society and culture

* **New swiss army knife:** More widespread recording abilities. For example, police asking for photo/video evidence received tons of content. Calendar and games all on one device. **People want a converged multitool:** Similar to swiss army knife, all-in-one printer/copier/fax/scanner, tv w/ vcr + dvd player, phones converge camera, phone, GPS, computer etc. This reflects how people wish to do more tasks with one device. Example: Check latest scores quickly during a meeting.
* *Sources:* ?? multipurpose
* *opulence*

# Technical aspect

* **Network technology**: 2G, 3G, 4G as cellular wireless standards. 1957 CDMA – send information simultaneously over a single communication channel. 4G: OFDMA.
* **1G:** Analog.1980s analog telecommunications standards.
* **2G**: <20 kbps. 1991. Digital radio signals between phones and towers. Digital can be compressed and multiplexed better => more calls in same radio bandwidth => greater mobile phone penetration. Digital allowed data services like SMS text messages. Digital allows encryption. Digital means no static or background noise but sound range is reduced from lossy compression. Used both TDMA and CDMA. GSM (80% usage) is TDMA.
* **2.5G:** <144 kbps.First internet access, email, and multimedia messaging.General packet radio serviceis best-effort; variable service dependent on number of users sharing the service; takes advantage of unused TDMA channels. Packet-switched data service: data is grouped into packets for delivery. As opposed to circuit-switched: limited number of dedicated connections of constant bit rate: Each connection allotted their own time channel.
* **2.75G:** <1.2 mbps. EDGE. 8PSK encoding. New algorithm opens up data rate
* **3G:** < 2 mbps. UMTS.
* **3.5G:** < 14.4 mbps. HSDPA.
* **4G:** < 100 mbps. LTE.
* **Power technology:** ARM Processor Architecture. Energy efficient => 98% mobile phone adoption.
* **User interface technology:** Mobile operating systems. Enables trackball and touch and gesture recognitions. Swype. Multi-touch.
* **Operating system technology:** simpler and deal more with network connectivity, mobile multimedia formats, and different input methods. Tethering. Messaging. Storage. Handset layouts.
* *Sources:* ?? fulfillment

# Impact on society

* **Stronger, insular networks:** Encourages more insular, personal networks by facilitating access to those networks. On top of calling and SMS provided by non-smart phones, smartphones give access to email, social networks like Facebook and LinkedIn.
* **New expression form:** Ubiquitous nature lends itself to investing identity expression into it: ringtones, screensavers. (Thumb Culture p.59)
* **People want to stay connected:** Trend from phone to cell phone. Computer to smartphone. Information from web and additional connections to friends like IM are always accessible.
* *Sources:* Dewey HE9713.L563 2004, [Thumb Culture: Meaning of Mobile Phones for Society](http://books.google.com/books?id=BizR2ICiGUAC&printsec=frontcover&dq=impact+of+mobile+on+society&hl=en&ei=BXyiTYWGMKaW0QHtl7ikBQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CEIQ6AEwBA#v=onepage&q=impact%20of%20mobile%20on%20society&f=false), Finland: A mobile culture”
* **New channel to voice dissent:** Promoted internet connection gives new voice in repressed societies. Examples include campaigns against government figures, Chinese and Indian censorship (Thumb Culture p. 78).