


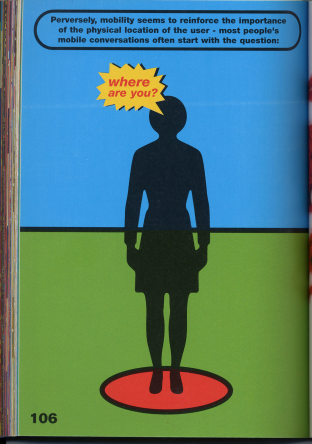
BMMS: Mobile Media and Social IT

Location-based services
Location-based social networks



The art of location
(Goggin, 2006):

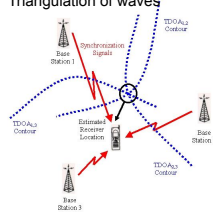
“From their inception, cell phones had been viewed as “freeing” users from location.



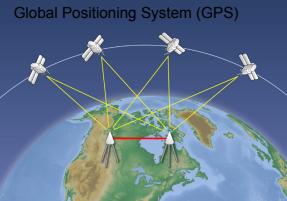
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Location awareness


Triangulation of waves



Global Positioning System (GPS)



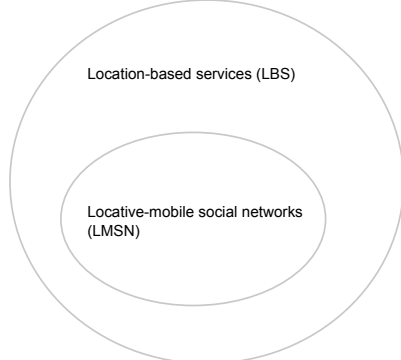
Wireless Positioning (WiFi)



Location awareness timeline

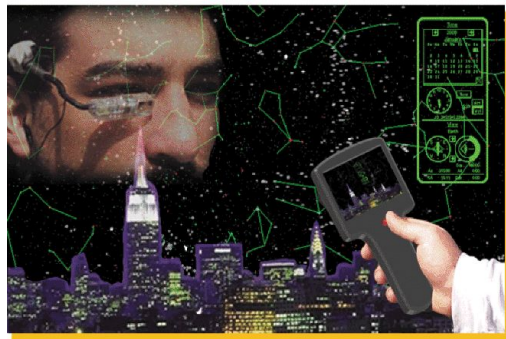
- 1999:** Location-based services (real-time map and directions) are available in Japan.
- 2001:** Enhanced-911 (E-911) phase II in the USA.
- 2000:** Clinton administration removes degradation on civilian GPS signal
- 2003:** First GPS phone in Japan
- 2005:** The US government ordered that all cell phones sold in the country become location aware for emergency calls

Location awareness



Worldboard, Jim Spohrer (1996)

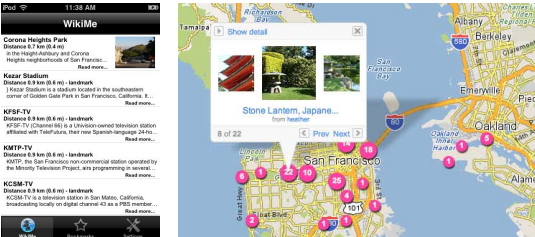
Figure 1 Concept computers illustrating heads-up display and hand-held display overlaying information about constellations, with a virtual control panel



Worldboard, Jim Spohrer (1996)

Notion of "place" transformed by location aware technologies:

1. Information can now be attached to places
2. "Place" becomes different depending on who perceives it
3. Properties of a place can be stored with it



LBS

Amsterdam Real Time, Waag-society (2002, Netherlands)



34N 118W (2002)

Jeff Knowlton, Jeremy Hight and Naomi Spellman



LBS

Urban Tapestries (Proboscis, 2002-2004)



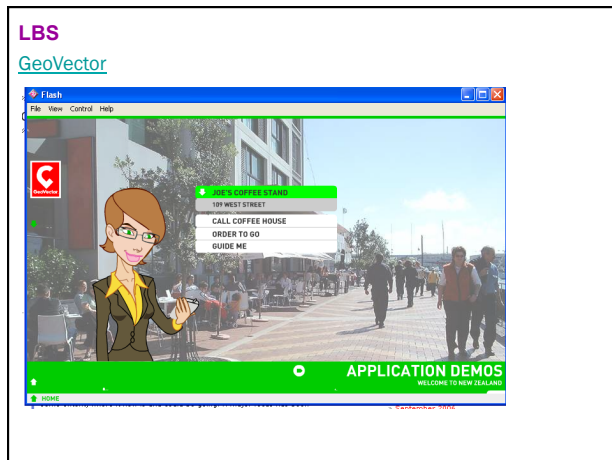
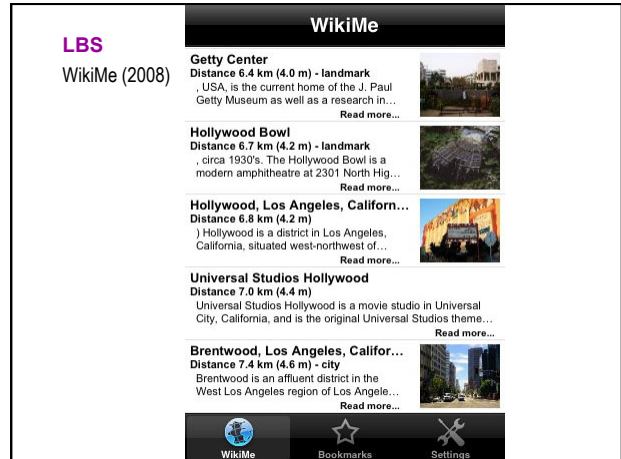
Digital Graffiti (Germany, Siemens + Ars Electronica Center, 2007)



Virtual post-its: attaching SMS messages to geographical points in space.

HP Mscape (2007)





LBS: Social implications

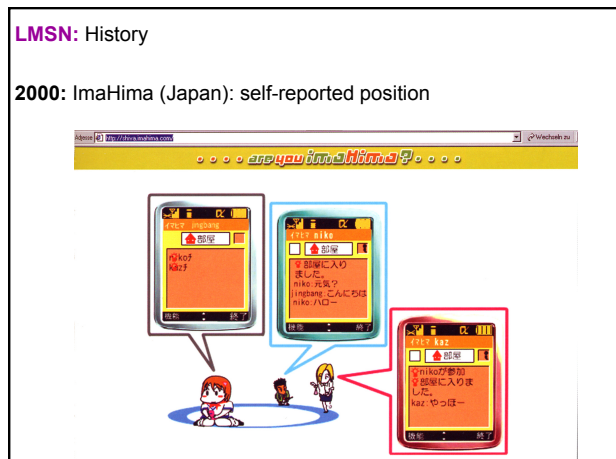
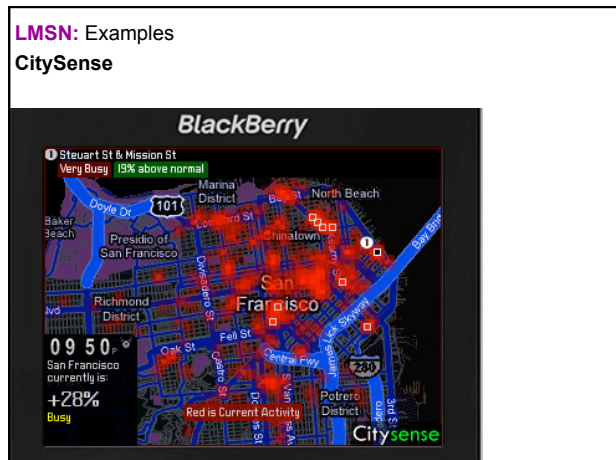
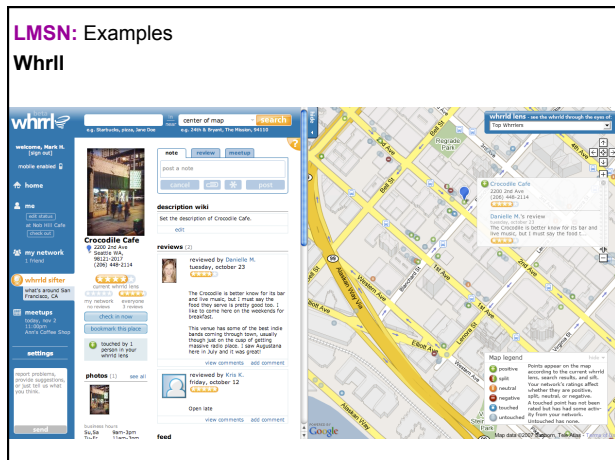
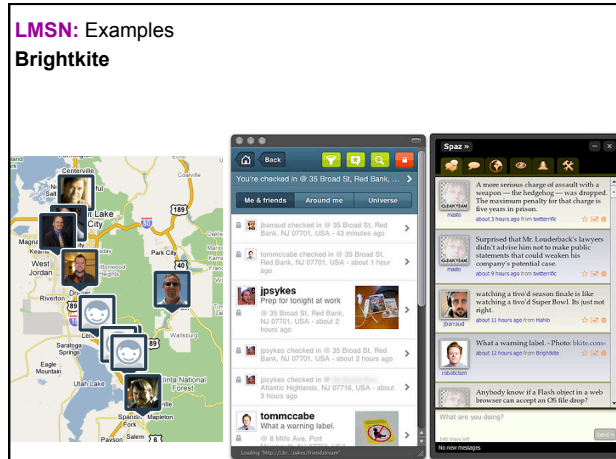
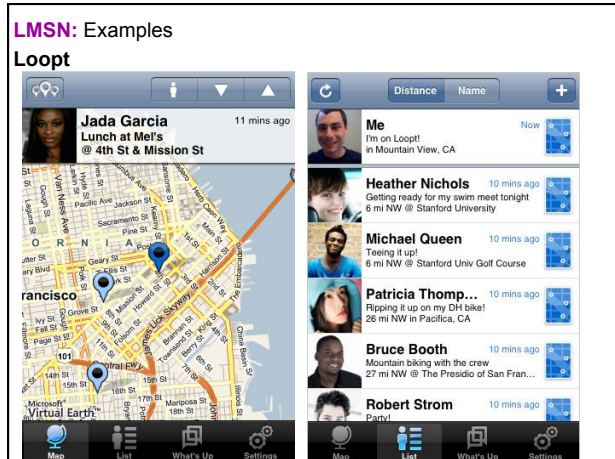
LBS (ethical issues):

- Accuracy and availability of location information
- User's freedom to opt out
- Transparency
- Location information storage

LMSN

Characteristics:

- Automated display of location
- Map location
- Social networking applications (vs. LBS)



LMSN: History

2000: Dodgeball (USA) → 2005

get started [sign in](#) [join dodgeball](#) [help](#)

you are in **New York City** [Suggestions? Bugs? Send them here](#)

Now available in over 22 cities!

1. INVITE FRIENDS
Add friends to your online profile

2. CHECK IN
On your phone, check in by sending a TEXT MESSAGE

3. CONNECT
your friends will receive a TEXT MESSAGE on their phone with your LOCATION and TIME of check in.

WHAT YOU SEND
TO: 36343
MSG: @Ace Bar

WHAT YOUR FRIENDS RECEIVE
Your friend Graham is at Ace Bar (523 E 5th St, NJ) Why not stop by and say hello!

Location-based mobile games

Botfighters
(It's Alive, Sweeden - 2001-2005)

Personalized adventures
Join the robot fight against Global Nation
Tactical battles where brainpower matters
Build the best robot for your career
Multiplayer and singleplayer missions with real and virtual enemies
Strong community features
Get updates on the go with the PC (web) community

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Mogi, Newt Games + KDDI (2003-2006, Japan) | <http://www.mogimogi.com>

Photos: Paul Baron

"The game provides a data-layer over the city of Tokyo." The Feature, 2004

Location-based mobile games

Alien Revolt
(M1nd Corporation, Brazil - 2005)

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Blast Theory + Mixed Reality Lab (2001-2006)

Can You See Me Now?
http://www.blasttheory.co.uk/work_cysmn.html

Sheffield (UK), 2001 / Rotterdam (Netherlands), 2002 / Köln (Germany), 2004 / Brighton (UK), 2003 / Barcelona (Spain), 2004 / Tokyo (Japan), 2005, Cambridge (UK), 2005 / Banff (Canada), 2006

Blast Theory + Mixed Reality Lab (2003)

Uncle Roy All Around You
http://www.blasttheory.co.uk/bt/work_uncleroy.html

London (2003)

