

Location-based Services Ecosystem

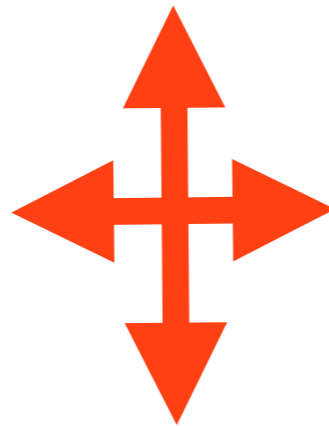
Ludovic Privat
Editor & co-founder
GPS Business News.com



Ecosystem

Location technologies

Content




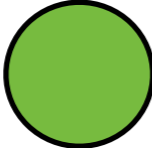
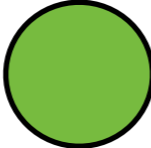
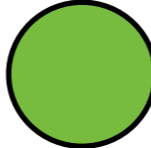
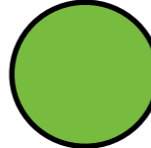
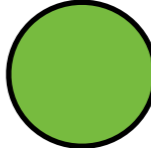
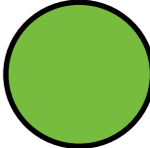

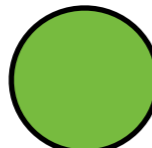
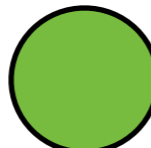
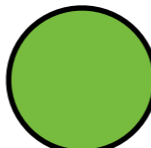
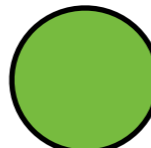
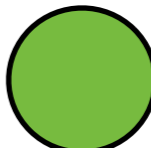
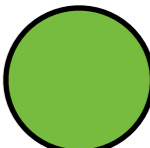

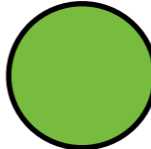
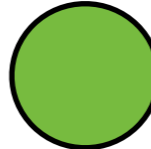
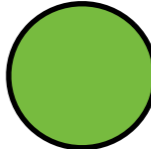
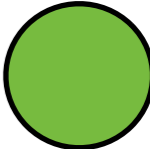

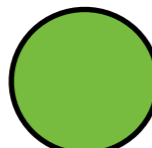
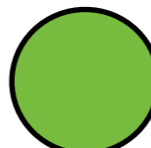
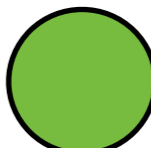
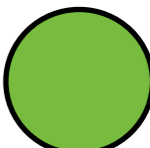
Platforms

Apps

Monetization ↓ & Distribution

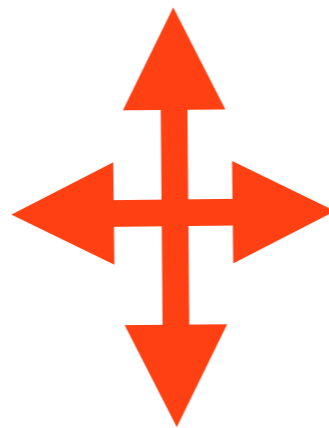
End users

800lb LBS Gorilla League

	Location	Content	Platform	Apps	Distri	Ads
						
						
	Partner	Partner				
		Partner	Partner			

Location technologies

Content



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Monetization & Distribution

End users

Beyond GPS

- Additional GNSS Constellations: Glonass, Galileo, Baidu
- Wi-Fi & Cell-ID triangulation: Skyhook Wireless, Google, ...
- Sensors: Geo-magnetic, pressure, accelerometer, 3-axis gyroscope
- **Trend = hybrid location**



Network-based location

- Passive location of handsets by wireless operators
- Uses cases
 - LBS for feature phones (non-GPS)
 - People and asset tracking
 - Notifications: weather alerts, location-based advertising, etc...
 - Safety & security: credit card authorization, location-based gambling
- Location aggregation across multiple networks
 - US cross carrier location available (Location Labs, LOC-Aid, Technocom)
 - Cross operator location likely to reach EU



Indoor location

Time spent ...



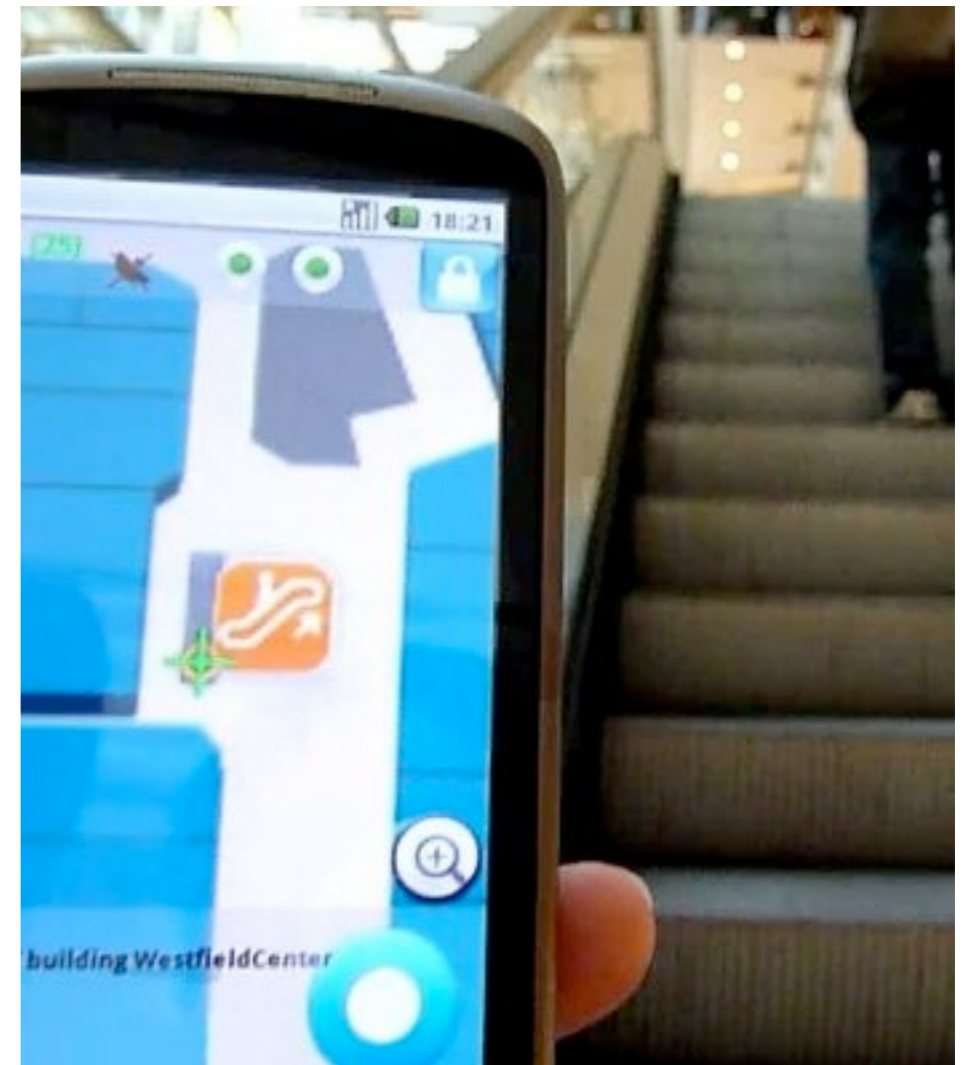
People spend 80-90% of their time indoors
70% of cellular calls and 80% of data connections originate from indoors.

(Source Strategy Analytics)

- Need for indoor location: shopping malls, train stations, airports, supermarkets, trade shows
- Indoor as the next location challenge

Indoor location techs

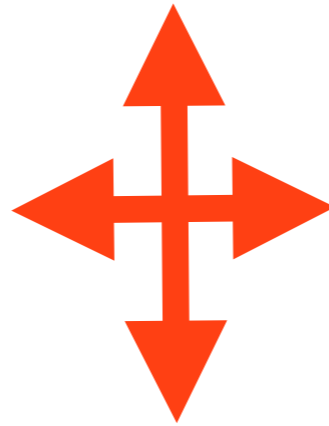
- GPS pseudolytes: Insiteo
- WLAN triangulation: Pole Star
- Bluetooth beacons: Nokia Research Center
- Sound: Shopkick
- NFC?
- Sensors: inertial positioning
- **Challenge = scalability**



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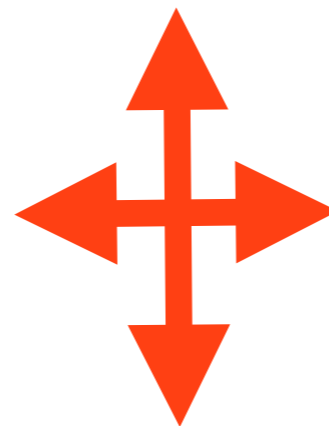
Geo-Content Trends

- From static towards dynamic content
 - real-time traffic, speedcams, weather, check-ins, reviews, local deals, etc...
- Open Data - open access to geospatial data from governments, local authorities
- Crowdsourcing + handsets as local probes
- Facing the “free” model



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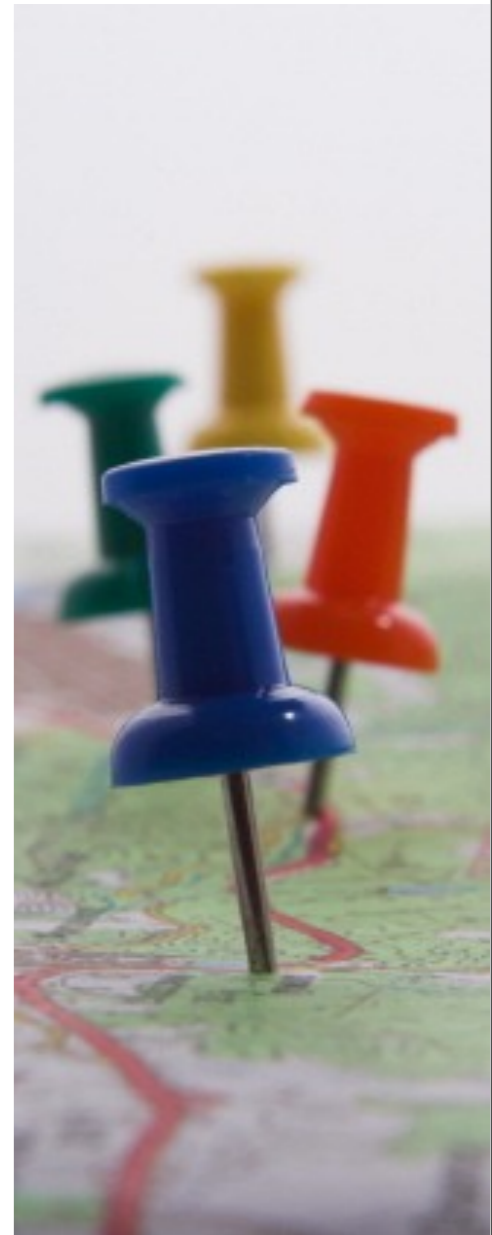
Apps

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End users

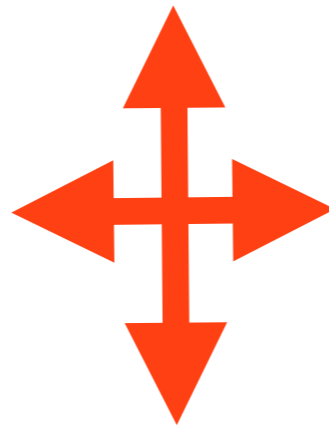
LBS Platforms

- Platform that provides support for map/routing/geocoding/places directory
- Three types of players
 - Local: i.e. MapQuest (US), Yandex (Russia), Mappy (France)
 - White label: deCarta, Maporama, etc...
 - Global: Google, Microsoft, Nokia



Location technologies

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Platforms

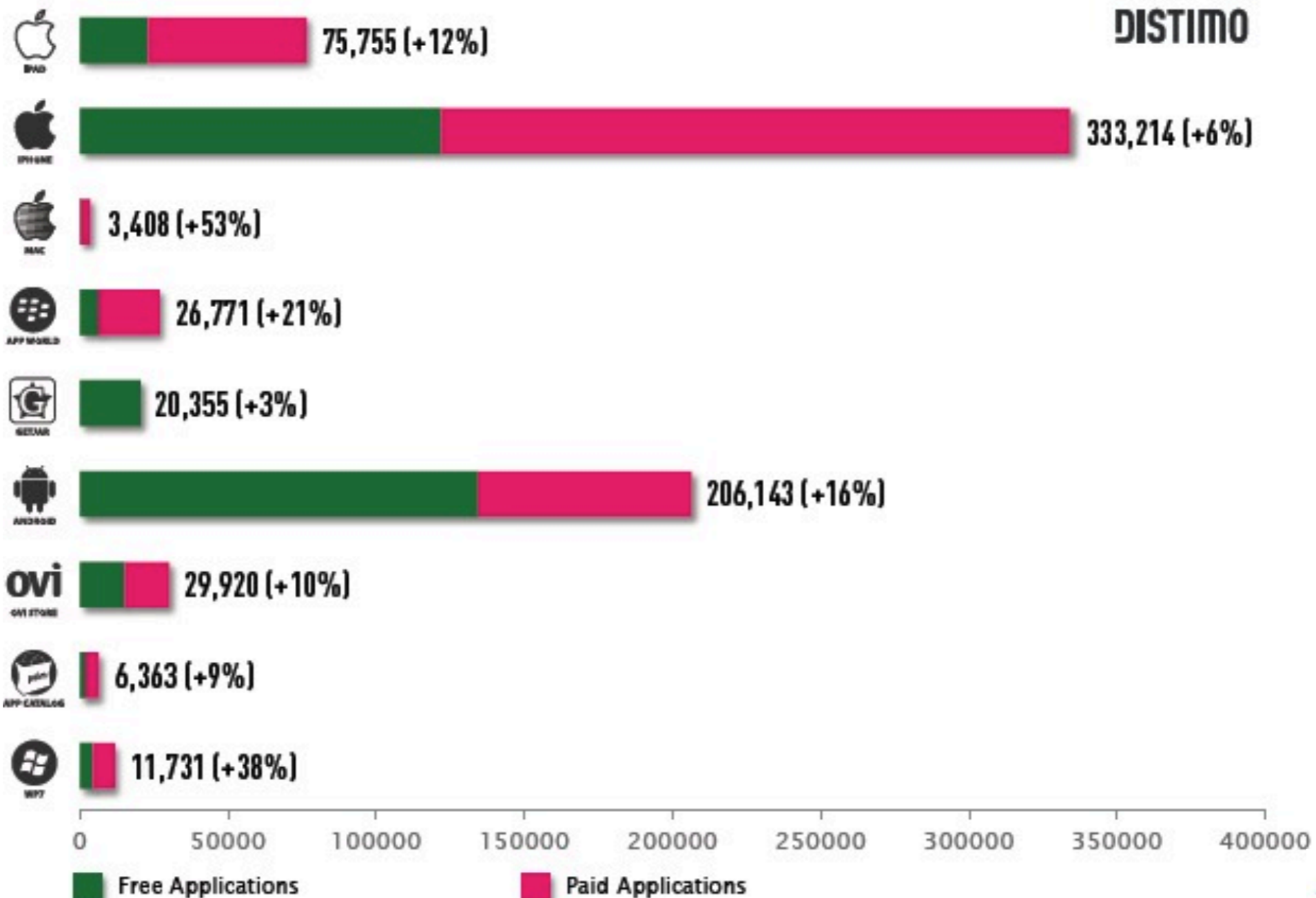
Apps

Monetization & Distribution

End users

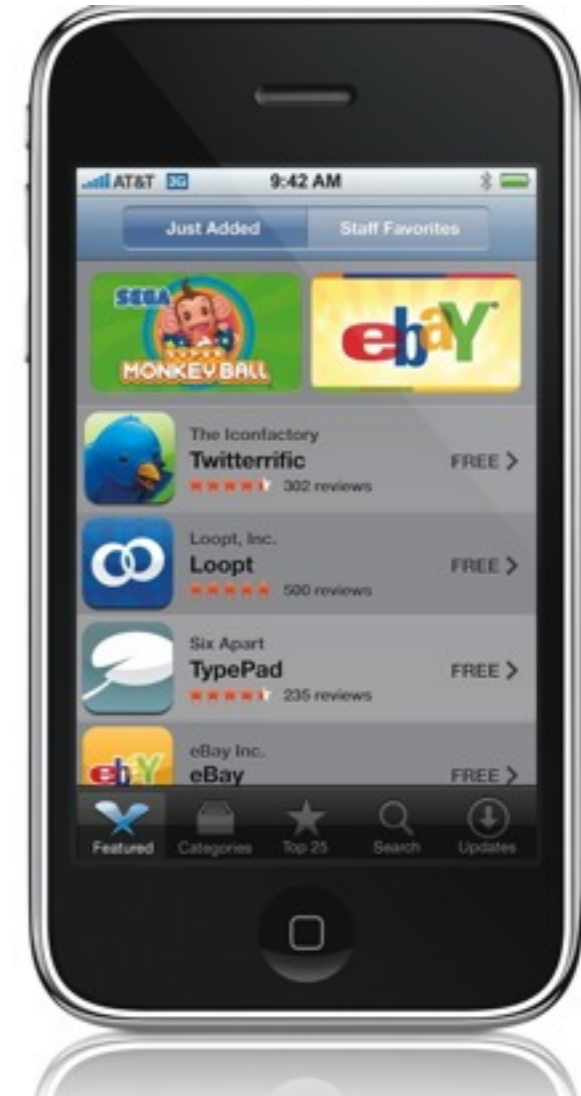
LBS Apps Distribution

NUMBER OF AVAILABLE APPLICATIONS
MARCH 2011 - UNITED STATES



Angry Birds vs the long tail

- Discovery problem plaguing the App store consumer experience
- Alternatives for developers?
 - Handset preloads
 - Wireless operators
 - HTML5: Web Apps vs Native Apps?
 - Location component in HTML5
 - 1.7 Billion location-enabled browsers expected in 2016 (ABI Research)
 - Discovery and monetization

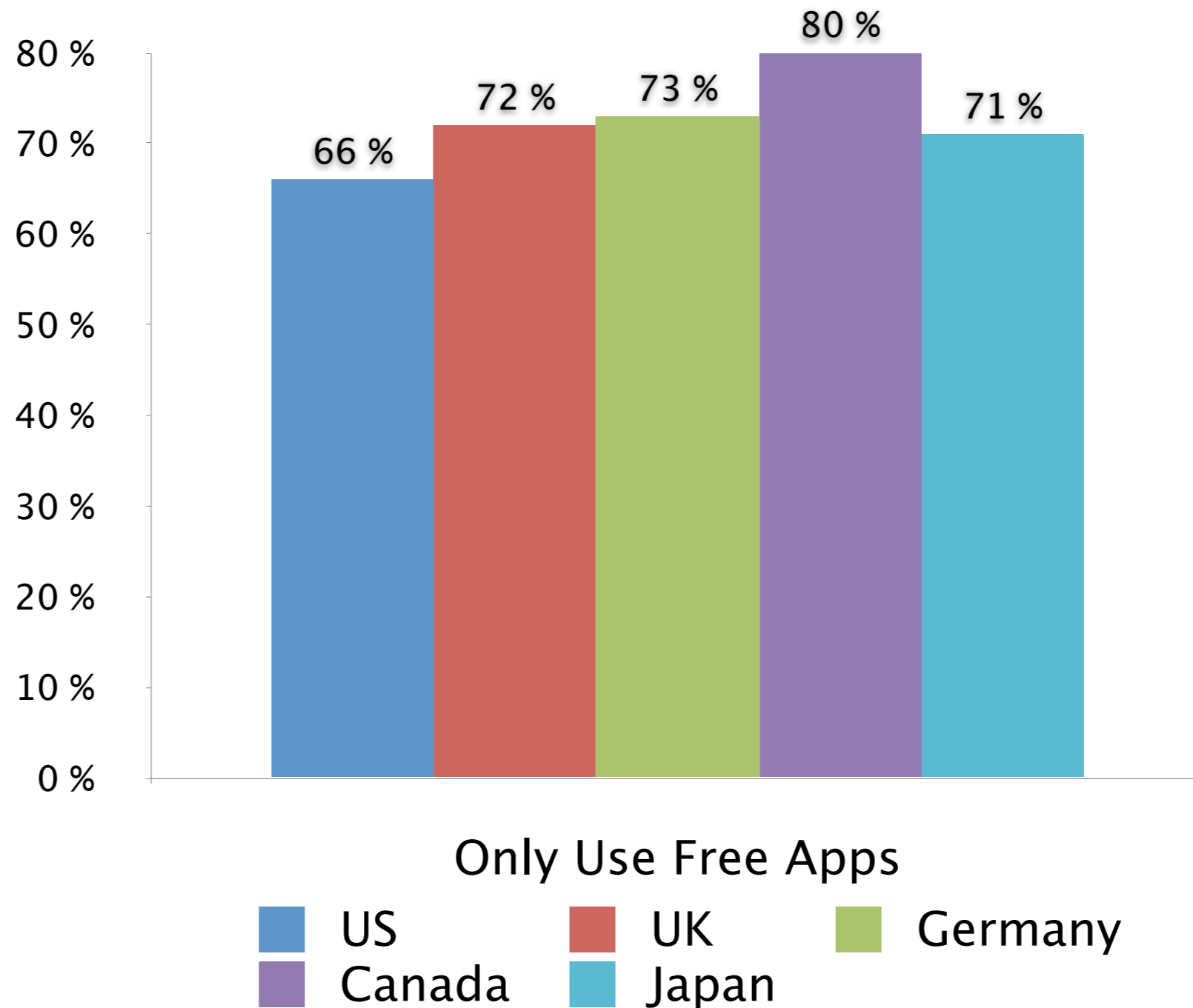


Monetization

- Many Possibilities
 - One time payment
 - Subscription
 - Freemium
 - Ad supported



Consumers Prefer Free LBS Apps



Cross Tab Marketng Services - Microsoft - Dec 2010
1500 interviews among the general population across US, UK, Germany, Canada, and Japan.

Location-based Ads: a reality?

- A few market pointers: effectiveness & volume
 - TeleNav 3.8% CTR - 24% drive to location rate. 40m searches /month.
 - NAVTEQ LocationPoint/ Poynt: 2.68% CTR. Post-click user engagement from 4.49% to as high as 11.25%
 - NAVTEQ/Nokia Maps/McDo: 7% CTR; 39% downloaded routes
 - xAD network: 250m local searches/month
 - WHERE Inc. network: 2B impressions/month (acquired by eBay)



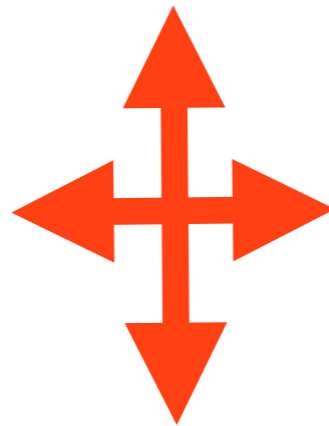
But paid (& freemium) are not dead

- Coyote (€1.59+€49.99/year) #1 in revenue French App store.
- NAVIGON Select Telecom (free app) #2 in revenue in German App store thanks to in-app purchase.
- Golfshot (\$29.99) #43 in revenue in US App store.

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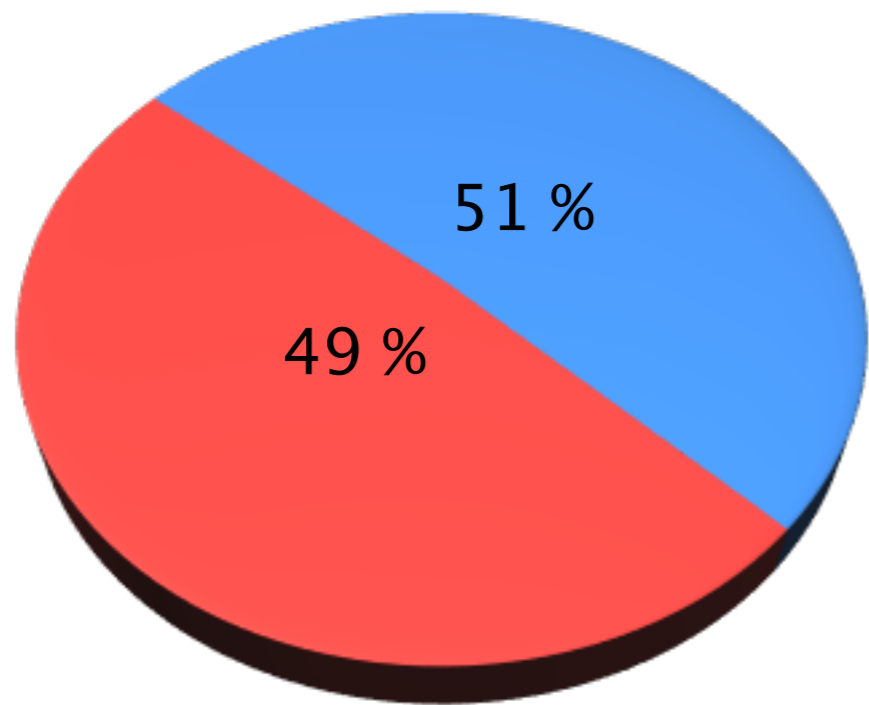
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Monetization ↓ & Distribution

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Consumer adoption

Half respondents report using LBS



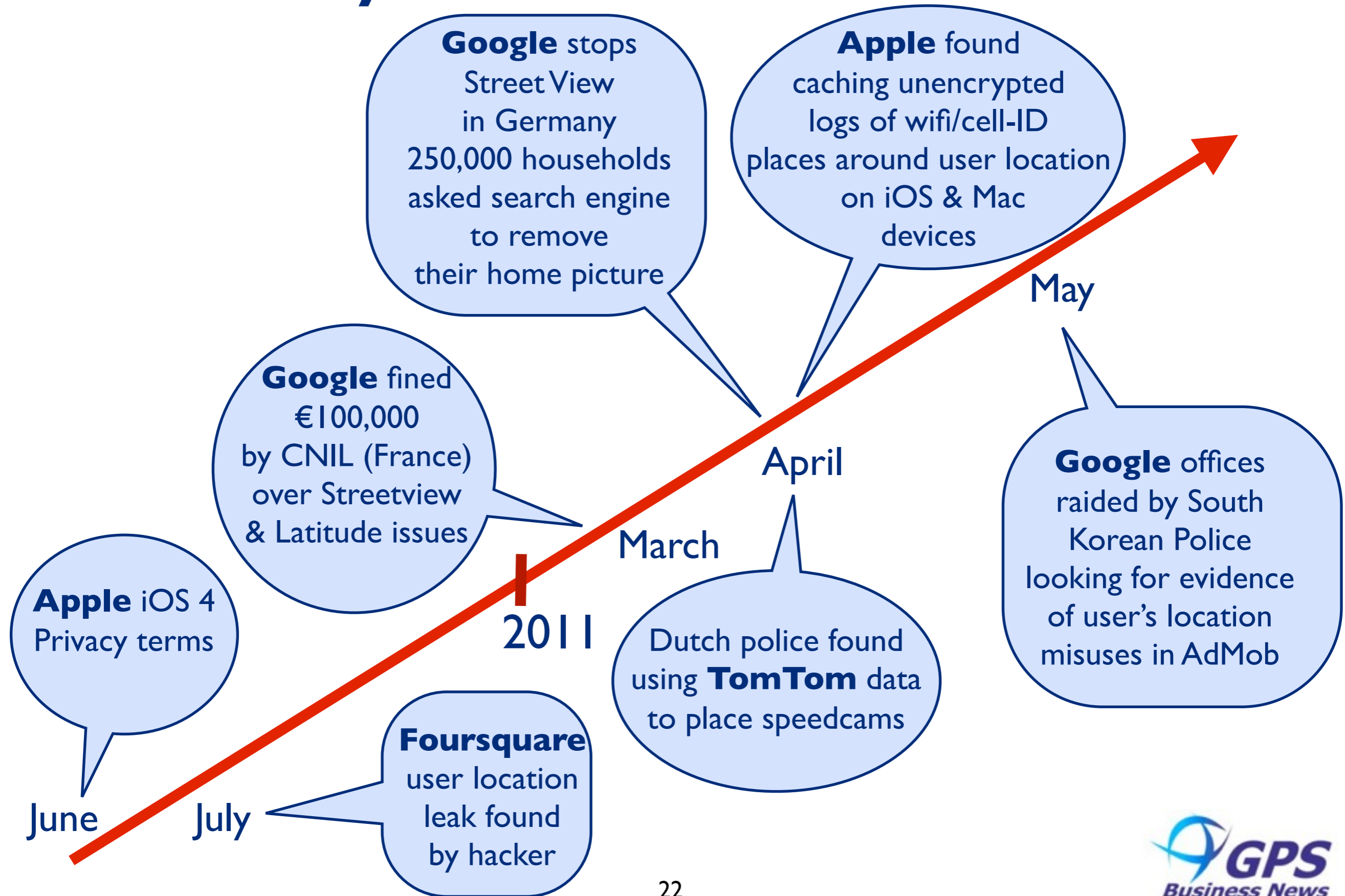
● Yes
● No

Services used	Total
Base	771
GPS navigation	70%
Weather alerts	46%
Traffic updates	38%
Restaurant info/reviews	38%
Locating the nearest convenience services	36%
Shopping/coupons	33%
Find nearest ATM	26%
Get movie show times	22%
Local news	20%
Social networking	18%
Gaming	10%
Geo-tagging photos	6%
Enhanced 911	5%
Locating your children	3%
Other	6%

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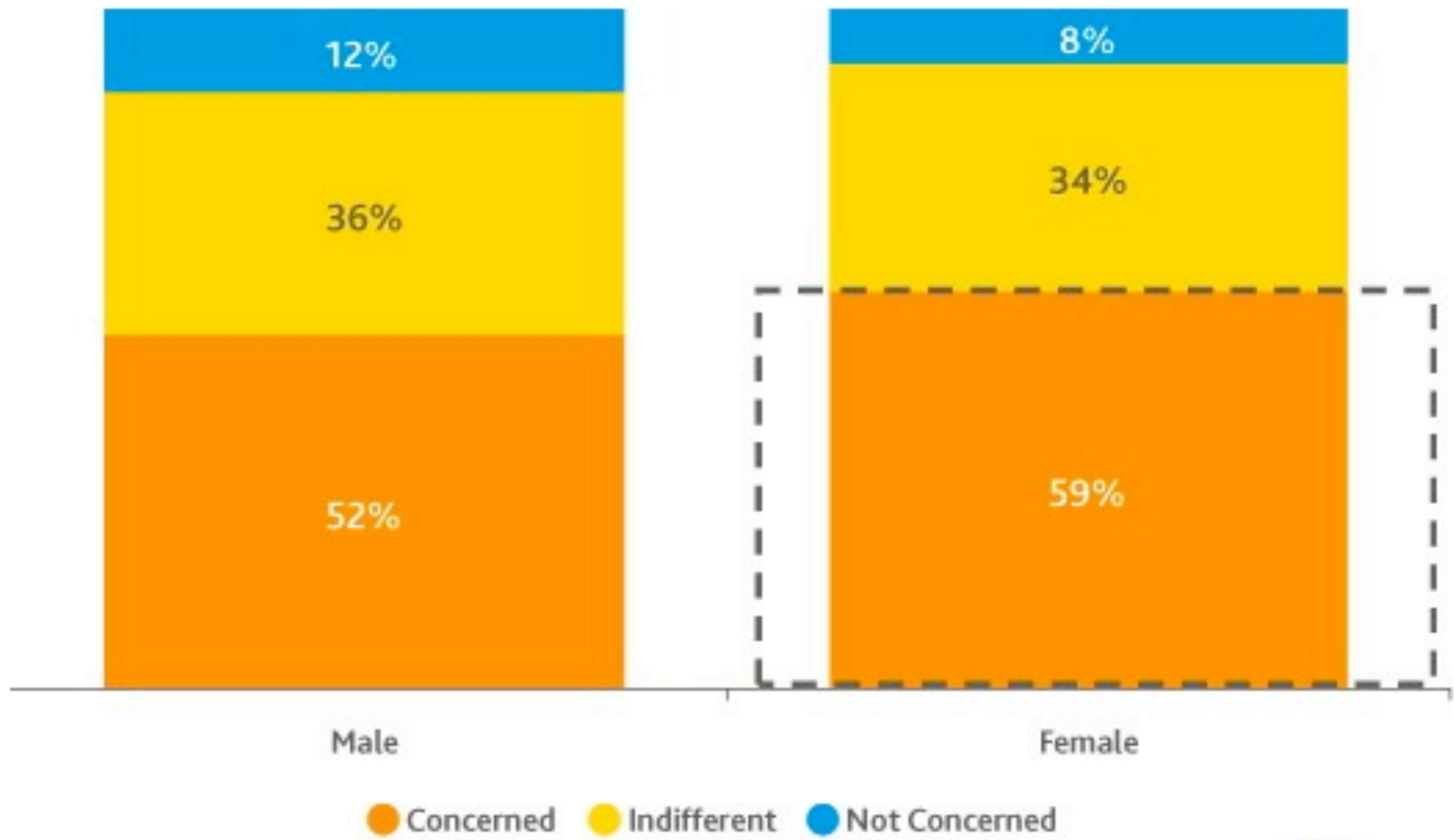
Privacy backlash has started



Consumer Privacy

Female app users are more concerned about privacy

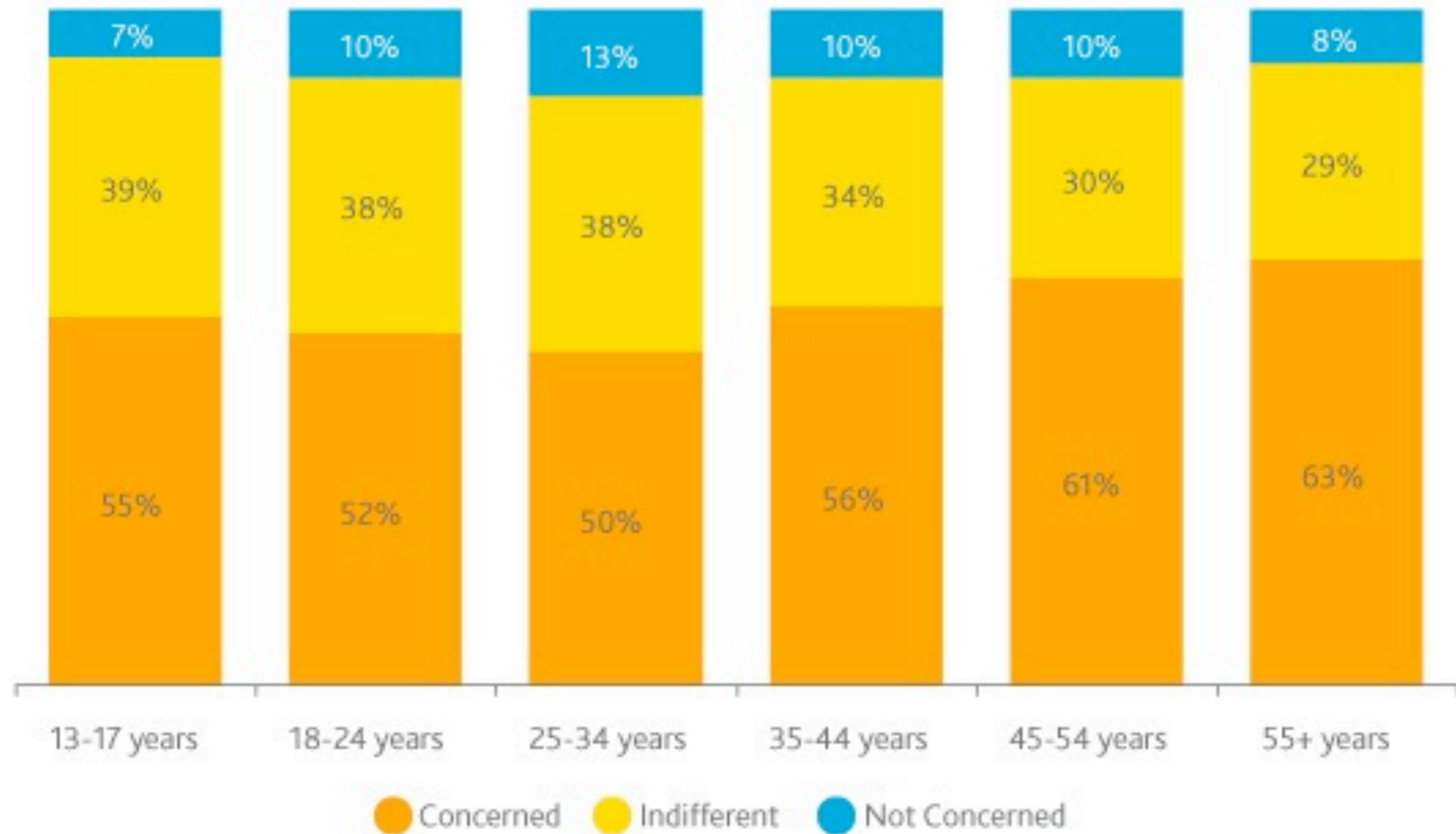
Extent to which using location-based services/check-in apps is privacy concern



Source: The Nielsen Company (April 2011)

Privacy is more of a concern for app users 45 and older

Extent to which using location-based services/check-in apps is privacy concern



Source: The Nielsen Company (April 2011)

nielsen

Thank you!

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A few trends

- Growth of multi sensors & network-based location
- Passive crowd-sourced content
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