Cartography
Spatial Computing – University of Minnesota

Slides for Spatial Computing MOOC (By Brent Hecht)
Learning Objectives

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2. Be able to distinguish between and understand the purpose of the two major types of maps: reference and thematic.
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Web Cartography
Map Design for Interactive and Mobile Devices

Ian Muehlenhaus

(Muehlenhaus 2013)
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“Excellent maps are designed with a communicative purpose [in mind]. A map that merely represents data is no more useful than an encyclopedia.”
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World's oldest map: Spanish cave has landscape from 14,000 years ago

Archaeologists have discovered what they believe is man's earliest map, dating from almost 14,000 years ago.

By Fiona Govan in Madrid
7:30AM BST 06 Aug 2009

Image 1 of 2
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(Jackson 2005)

http://www.w3.org/2005/Talks/0513-webplatform/
Google Maps: There are very few cartographers involved
Web Cartography
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Ian Muehlenhaus
CRC Press
“Today, a majority of online and mobile maps are created by computer scientists, Web designers, or self-taught coders...In essence, it seems the craft of online mapmaking has developed without too much input from the discipline of cartography itself.”

(Muehlenhaus 2013)
The dominance of computer science in cartography will persist unless “academic programs can synthesize the massive amount of new knowledge dealing with online and interactive maps and contribute back to those actually designing maps”.

(Muehlenhaus 2013)
# The 10 Most Popular Apps in the U.S.

Average monthly users (18+) of the most popular smartphone apps in the United States in 2013

<table>
<thead>
<tr>
<th>App</th>
<th>Monthly Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>86.1m</td>
</tr>
<tr>
<td>Google Play</td>
<td>60.9m</td>
</tr>
<tr>
<td>Google Search</td>
<td>59.7m</td>
</tr>
<tr>
<td>YouTube</td>
<td>55.7m</td>
</tr>
<tr>
<td>Pandora Radio</td>
<td>51.6m</td>
</tr>
<tr>
<td>Gmail</td>
<td>51.3m</td>
</tr>
<tr>
<td>Google Maps</td>
<td>50.5m</td>
</tr>
<tr>
<td>Apple App Suite*</td>
<td>49.3m</td>
</tr>
<tr>
<td>Yahoo Stocks</td>
<td>34.1m</td>
</tr>
<tr>
<td>Apple Maps</td>
<td>29.5m</td>
</tr>
</tbody>
</table>

*Includes iTunes, App Store and Game Center

Source: comScore

A colleague of mine, Tim Wallace, recently alerted his classmates to the existence of this Google MyMaps mashup of US drone attacks in Pakistan:

http://cartastrophe.wordpress.com/2010/03/22/a-war-without-humans/
“The forthcoming pages demonstrate just how different Web cartography is from paper mapping, but they will also impress on you the fact that, for all of the differences, many of the core tenets of cartography remain intact”.

(Muehlenhaus 2013)
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Attributions

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