The Impact of Regulation, Socio-economics & Technology on the Arab Internet Market

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The views expressed are those of the author and may not necessarily reflect the opinions of the ITU or its Members.
Internet in the Arab World

Distribution of Internet Users
May 1999 Total: 923,000

- Egypt 22%
- UAE 22%
- Saudi Arabia 12%
- Leb. 14%
- Jordan 5%
- Oman 4%
- Bahrain 4%
- Morocco 4%
- Qatar 4%
- Yemen 1%
- Tunisia 2%
- Kuwait 7%
- Jordan 5%
- Oman 4%
- Bahrain 4%
- Morocco 4%
- Qatar 4%
- Yemen 1%
- Tunisia 2%

Source: ITU adapted from DITnet.

Internet users as % of population, May 1999

- Yemen 0.04%
- Morocco 0.10%
- Tunisia 0.1%
- Egypt 0.2%
- S. Arabia 0.6%
- A. States 0.6%
- Jordan 0.8%
- Oman 1.7%
- Kuwait 3.5%
- Lebanon 4.1%
- Qatar 4.7%
- Bahrain 5.1%
- UAE 8.7%
Wealth & Internet

Source: ITU adapted from DITnet and World Bank data.
### Internet absorption “hard” factors
**Rather have a cellphone**

<table>
<thead>
<tr>
<th>Country</th>
<th>Telephone subscribers (000s) 1998</th>
<th>Connected to Internet (%)</th>
<th>Mobile subscribers (000s) 1998</th>
<th>Internet subscribers (000s) April 99</th>
<th>Mobile / Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>158</td>
<td>8.2%</td>
<td>92</td>
<td>13</td>
<td>7.1</td>
</tr>
<tr>
<td>Egypt</td>
<td>3972</td>
<td>1.3%</td>
<td>91</td>
<td>52</td>
<td>8.9</td>
</tr>
<tr>
<td>Jordan</td>
<td>511</td>
<td>3.9%</td>
<td>71</td>
<td>20</td>
<td>3.6</td>
</tr>
<tr>
<td>Kuwait</td>
<td>427</td>
<td>5.9%</td>
<td>250</td>
<td>25</td>
<td>10.0</td>
</tr>
<tr>
<td>Lebanon</td>
<td>620</td>
<td>8.5%</td>
<td>500</td>
<td>53</td>
<td>9.4</td>
</tr>
<tr>
<td>Morocco</td>
<td>1’515</td>
<td>2.2%</td>
<td>117</td>
<td>33</td>
<td>3.5</td>
</tr>
<tr>
<td>Oman</td>
<td>220</td>
<td>18.2%</td>
<td>103</td>
<td>40</td>
<td>2.6</td>
</tr>
<tr>
<td>Qatar</td>
<td>1’501</td>
<td>1.9%</td>
<td>66</td>
<td>28</td>
<td>2.4</td>
</tr>
<tr>
<td>S. Arabia</td>
<td>2’878</td>
<td>3.9%</td>
<td>627</td>
<td>113</td>
<td>5.5</td>
</tr>
<tr>
<td>Tunisia</td>
<td>752</td>
<td>2.0%</td>
<td>39</td>
<td>15</td>
<td>2.6</td>
</tr>
<tr>
<td>UAE</td>
<td>915</td>
<td>22.3%</td>
<td>493</td>
<td>204</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>TOTAL / AVERAGE</strong></td>
<td><strong>13’469</strong></td>
<td><strong>4.4%</strong></td>
<td><strong>2’823</strong></td>
<td><strong>596</strong></td>
<td><strong>4.7</strong></td>
</tr>
</tbody>
</table>

Source: ITU, DIITnet (Internet subscribers).
## Internet absorption “soft” factors

<table>
<thead>
<tr>
<th>Region</th>
<th>Adult literacy rate (%)</th>
<th>School enrolment (%)</th>
<th>Human Development Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>71.4</td>
<td>59</td>
<td>.64</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>58.5</td>
<td>44</td>
<td>.46</td>
</tr>
<tr>
<td>Arab States</td>
<td>58.6</td>
<td>59</td>
<td>.63</td>
</tr>
<tr>
<td>East Asia</td>
<td>83.4</td>
<td>69</td>
<td>.71</td>
</tr>
<tr>
<td>South Asia</td>
<td>52.2</td>
<td>65</td>
<td>.54</td>
</tr>
<tr>
<td>Latin America</td>
<td>87.2</td>
<td>72</td>
<td>.76</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>98.7</td>
<td>76</td>
<td>.75</td>
</tr>
</tbody>
</table>

Source: UNDP.
# Regulatory issues

Depends on viewpoint

<table>
<thead>
<tr>
<th>Government</th>
<th>User with access</th>
<th>ISP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Content</td>
<td>• Speed</td>
<td>• Pricing</td>
</tr>
<tr>
<td>• Internet telephony</td>
<td>• Pricing</td>
<td>• Service from incumbent phone company</td>
</tr>
<tr>
<td>• Market structure</td>
<td>• Quality</td>
<td>• Peering</td>
</tr>
<tr>
<td></td>
<td>• Privacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Content</td>
<td></td>
</tr>
<tr>
<td><strong>User without access</strong></td>
<td>• Access</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Internet pricing

Ten hours of dial-up Internet usage per month, US$

<table>
<thead>
<tr>
<th></th>
<th>Morocco</th>
<th>Lebanon</th>
<th>Tunisia</th>
<th>UAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>0.14%</td>
<td>3.13%</td>
<td>0.32%</td>
<td>8.50%</td>
</tr>
<tr>
<td>penetration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price/GDP</td>
<td>13%</td>
<td>6%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>per capita</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ITU adapted from ISP and PTO data.
UAE Internet

- UAE has more than half of the Internet host computers in region
- Etisalat largest ISP in region
- Emirates Internet Exchange
- Dubai Internet City

http://www.emix.net.ae/network.html
What is Internet Telephony?
- VoIP or
- Extra revenue for telephone company

VoIP already happening despite legal ban

Source: ITU adapted from Arbinet, FCC.
Internet Telephony
Another perspective

- Internet can be beneficial to telephone companies
- Extra local traffic, 2nd lines, ISDN, leased lines

![Traffic and Revenue Graph](source: Hongkong Telecom)
Content

• Overblown issue
• Has serious implications for Internet diffusion
• Local content development

http://www.idsc.gov.eg/index.htm
Universal access

- Internet friendly tariffs
- Public access points

Household telephone penetration

Source: ITU.
Tunisian Publinet

- PubLIC INTERnet
- Started in October 1998
- 50% of investment cost met by government; rest from low interest loans

Source: ATI (www.ati.tn)
If we only had WebTV

- Other ways of accessing Internet
- Much higher penetration of TV than telephone or computers

**Household TV penetration**

- **Tunisia**: 87%
- **Morocco**: 75%
- **Lebanon**: 97%
- **Jordan**: 94%
- **Egypt**: 58%

Source: ITU adapted from national data and European Audiovisual Observatory.
Conclusions

• Allow ISPs to offer own international gateways and leased lines and even access lines if telephone companies are uncooperative
• Develop local content, particularly government services
• Promote Internet-friendly dial-up local telephone charges
• Establish public access policies
• Telephone companies are missing out on significant revenue source
• Raise awareness, increase training and education