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IDN: Challenges and Opportunities

A registry's view of the multilingual web



Rome, March 2013



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*Everything
is about
the end
user*



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Name

Deng Fu Xiang

Occupation

Freelance photographer

Age

35 years old

Country

China

Main online activities

**Manages his website,
uses email, engages in
social media, writes a
blog**





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<http://邓福祥.点看>



福祥@邓.点看



<http://博客.邓福祥.点看>

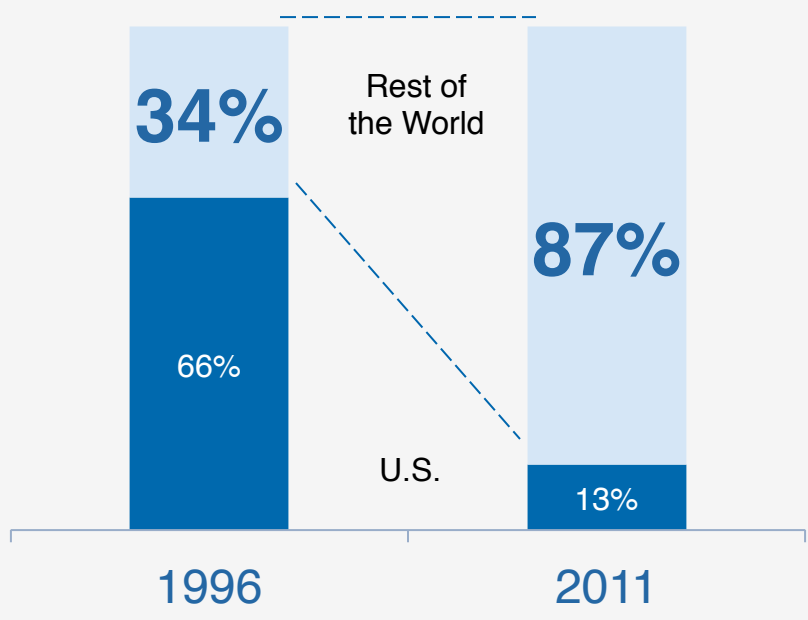




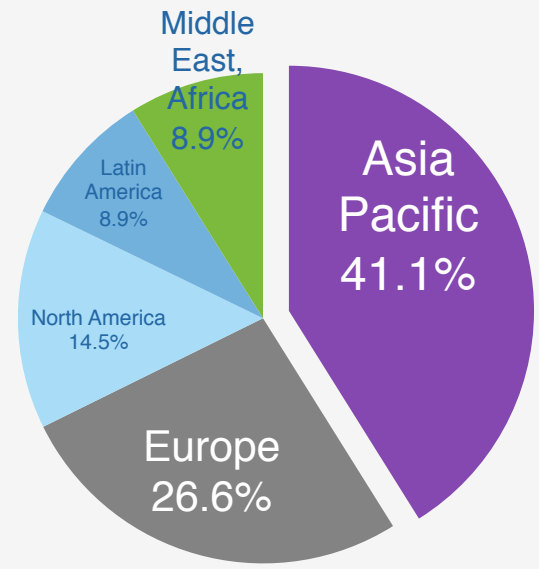
**but reality
is different
and we are
far from
done**

In 1996, 2/3 of world's Internet population was in the U.S., yet today Asia Pacific is the largest region with over 40% of the online population. (1)

Rest of the World Internet Population vs U.S.

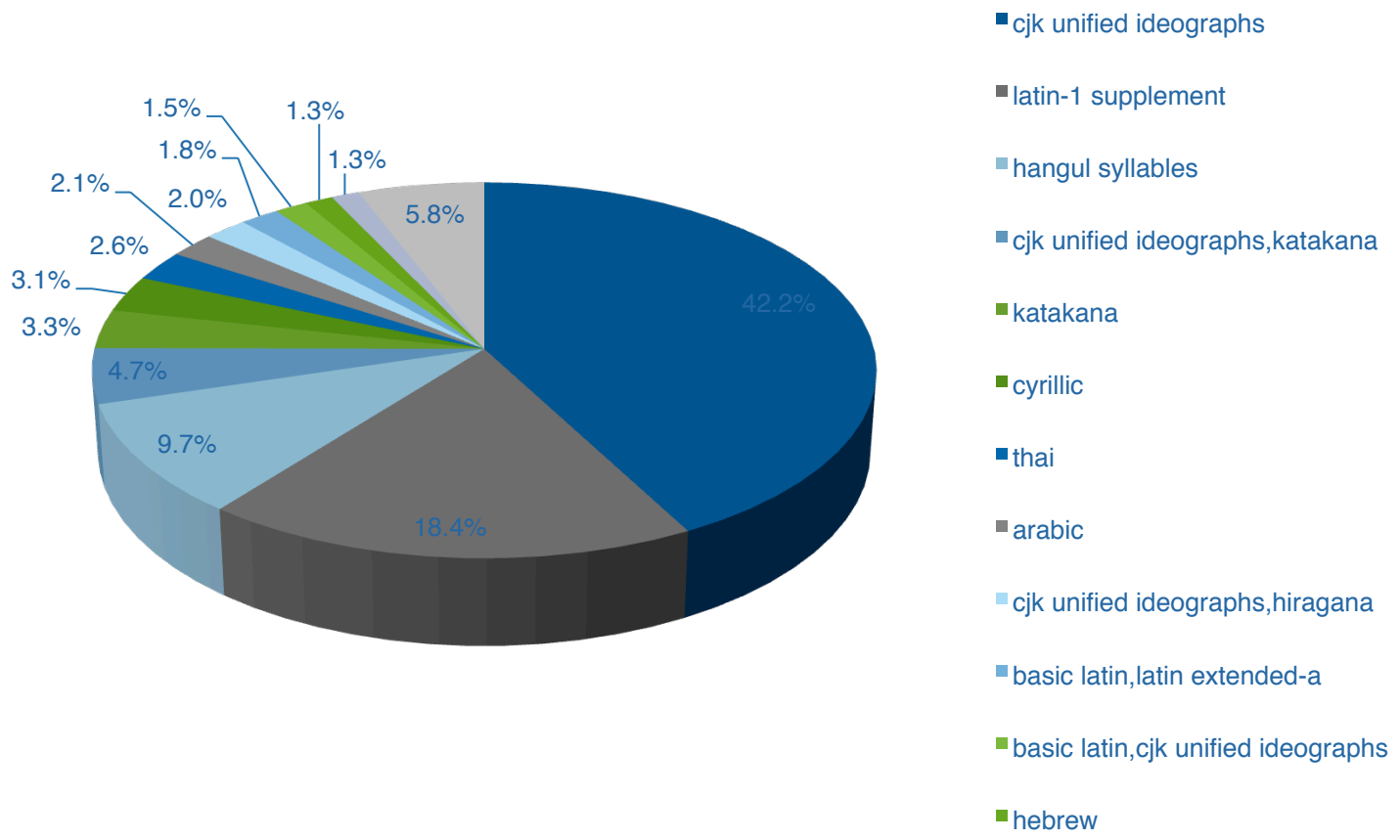


Distribution of Worldwide Internet Audience



(1) ComScore: State of the Global and Local Internet, June 2012

Internationalization in .Com and .Net



- Almost 1.3M IDNs
- 662K use CJK Ideographs
- 121 use Armenian

IDNs in applications

Web Browsers

- Major browsers (IE, Chrome, Safari, Firefox) now support IDNs with varied approaches (i.e. TLD white list⁽¹⁾, user language settings)
- Yet new TLDs face challenges as “the world’s most-popular web browsers are still failing to recognize new top-level domains”⁽²⁾

Email Clients

- Most popular email clients (i.e. Outlook, Mozilla Thunderbird, Gmail) don’t support IDNs
- 2011 EURid survey: 82% believed email support as a key challenge to adopt IDNs ⁽³⁾

Popular applications

- Lack of support for IDNs in popular applications and websites in the creation of user accounts (e.g. Facebook)⁽⁴⁾

(1) <http://www.mozilla.org/projects/security/tld-idn-policy-list.html>, accessed February 13, 2013

(2) <http://domainincite.com/11673-apple-google-and-microsoft-still-dont-understand-new-tlds>, accessed January 22, 2013

(3) EURid-UNESCO World report on Internationalised Domain Names deployment 2012, p.22

(4) EURid-UNESCO World report on Internationalised Domain Names deployment 2012, p.10

What change (either within the registry or the wider market) could improve uptake of IDNs? Registry responses 2012 (1)

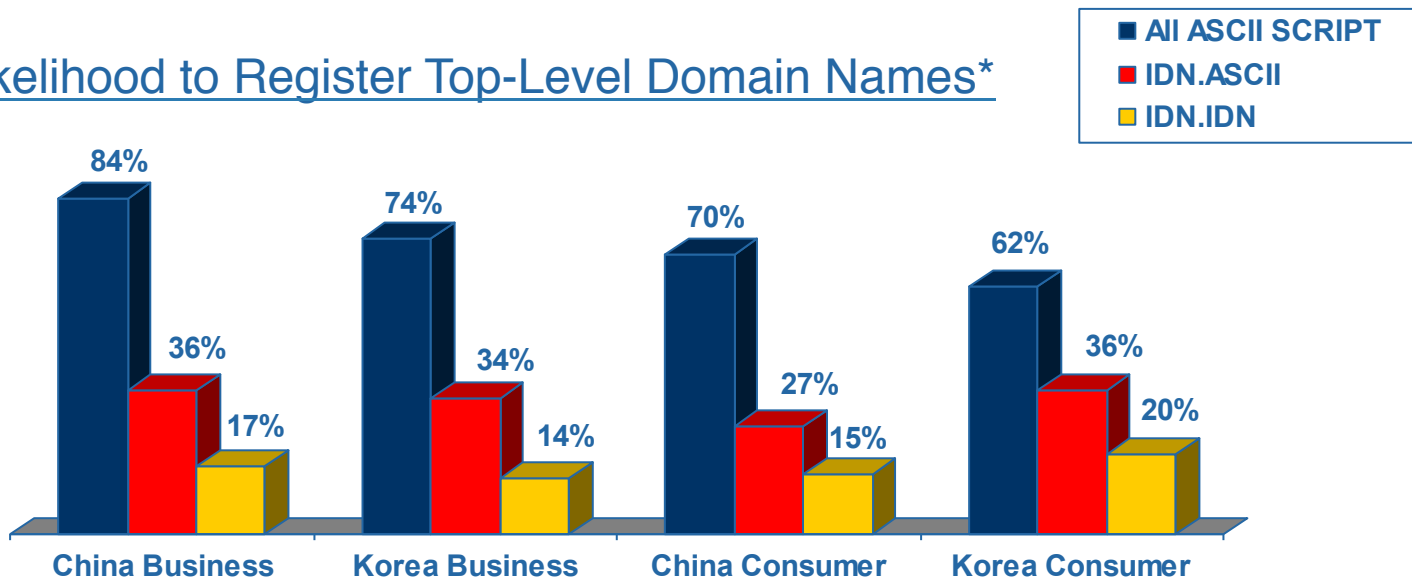
Change advocated	Number	% of Answers
Email/client application	6	17%
Greater user awareness/change in habit in users	8	23%
Wider support at registrar level	4	11%
Finding a solution for character variants	2	5%
Better support in browsers	6	17%
Easy management of DNS and web server, and translation between Unicode and Punycode	4	11%
Others	5	15%

(1) EURid-UNESCO World report on Internationalised Domain Names deployment 2012, p.55

Issues with IDNs

- No ubiquity
- No consistent user experience
- Lack of awareness
- Lack of trust

Likelihood to Register Top-Level Domain Names*



Qualitative Research Led to Five Key Insights Regarding Domain Name Extensions and IDNs

1. IDN utility is not currently perceived as well appreciated.
2. There is an initial resistance to adopting IDN.IDNs.
3. Preferences do emerge for translation or transliteration dependent upon country.
4. Interest in registering IDN.IDNs at this point appears moderate but there are reservations.
5. Overall, registrar channel expectations for IDNs in general as well as specific IDN choices mirror those currently used in countries for finding and registering ASCII domain names.

Current IDN Status: China

- Latin-based domain names are the most popular, most adopted and perceived to be the easiest to input.
 - Most respondents are aware of IDNs
 - Respondents are aware a company can register a domain name in Chinese/native characters but the perception is that it would be more expensive than an all English domain name
 - Know about IDNs through registrars/registrar promotions
 - Currently, few recall seeing domain names in Chinese characters.

IDN.ASCII

- Less popular than Latin-based
- Website content/script both in Latin and Chinese
- Both foreign and local companies will register
- Looks strange (Chinese and English)
- Registrars or register companies are international companies
- Troublesome to input (need to change key in method/software)

IDN.IDN

- Less popular than Latin-based
- Website content/script is in Chinese
- Used domestically, only local companies will use
- Market size is narrower than IDN.ASCII
- Better for personal use
- Prefer all Chinese characters
- Easier to remember
- Don't look like domain names

Current IDN Status: India

- All English domain names currently dominate the Internet in India.
 - Viewed as easily understood, memorable, convenient, popular and more global.
 - English is the language for business.
- Respondents state they currently do not visit sites using IDNs.
 - Know of some sites, especially newspaper sites, with native language content but the domain name is all in English.

IDN.ASCII

- Less popular than English
- Not very familiar with
- No recall of current Web sites using
- Perceived to be difficult to input
- For local businesses only
- Confusing – “why mix two languages?”

IDN.IDN

- Not familiar with
- Prefer IDN.IDN over IDSN.ASCII – not as confusing as mixing two languages
- Better representation of the companies than IDN.ASCII
- Could be more for personal use
- Difficult to input
- For local businesses

Current IDN Status: Japan

- Latin-based domain names are most popular and well accepted.
- Familiar with IDNs but have yet to become popular.
 - Seen as expensive.
 - Associating the IDN to an existing site is perceived as difficult.
 - When first introduced, Internet browsers could not handle them.
 - “Disappeared” because they were not convenient or needed.
- Both IDN.ASCII and IDN.IDN are seen as having more disadvantages than advantages compared to Latin domains.

IDN.ASCII

- Some familiarity
- No recall of current Web sites using
- Confusing to mix IDN and ASCII
- Difficult to input 2 languages, English is simpler and preferred
- Looks strange
- Could be good for promotions
- Difficult for search engines to locate

IDN.IDN

- Not familiar with
- Prefer IDN.IDN over IDSN.ASCII – not as confusing as mixing two languages
- But could be difficult to input, still mixing 1 and 2 byte characters; “. ” is 1 byte
- Better representation of the companies than IDN.ASCII

Current IDN Status: Korea

- All Latin domain names are most used.
 - Viewed as easily understood, memorable, convenient, popular and more global.
- Familiar with IDN.ASCII domain names
 - Some respondents have them registered.
 - Do not feel they are well used by customers/visitors to site.
 - Have declined in use over time.

IDN.ASCII

- Limited usage – domestic
- Sometimes easier to remember
- For business use
- For promotional purposes
- Local (a little bit unsophisticated)
- Difficult to input Korean and difficult to change from Korean to English
- Needs lots of advertising to get visitors
- Good for those not familiar with English

IDN.IDN

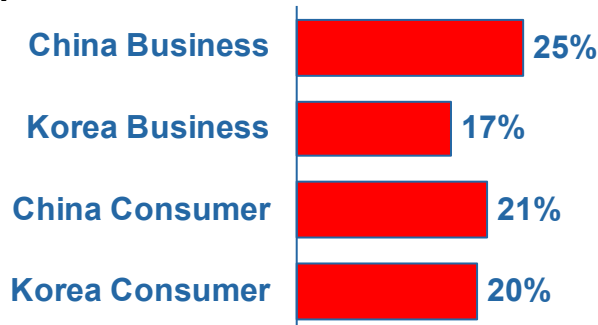
- Not familiar with
- Uncommon
- Prefer IDN.IDN over IDSN.ASCII – no need to switch languages when inputting which would be more convenient
- Still seen as difficult to input in Korean

Future Usage of Local Language Domains

- Currently a minority of respondents say they are very likely to regularly visit websites that only use local language domain names – either IDN.ASCII or IDN.IDN.

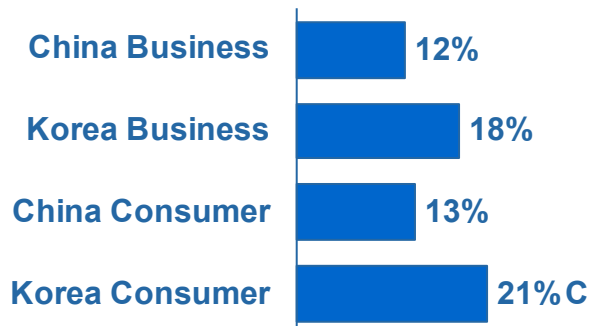
Likelihood to Visit Websites Using These Addresses*

IDN.ASCII



** Top 2 Box on a 5-point scale where 5 = Extremely likely and 1 = Not likely at all

IDN.IDN



Roles

- **Registries**

Provision, resolve and manage domain names (IDNs), raise end user awareness

- **Registrars**

Distribute domain names, raise end user awareness ... locally

- **Content creators**

Create content in native language to raise end user awareness

- **Application developers**

Create IDN aware applications (i.e. Web browsers, email clients, mobile applications, etc)

- **Governments/Businesses/Standard making organizations**

Provide internet infrastructure and policies (i.e. Internet Exchange Points, internet connectivity to end users, standards)



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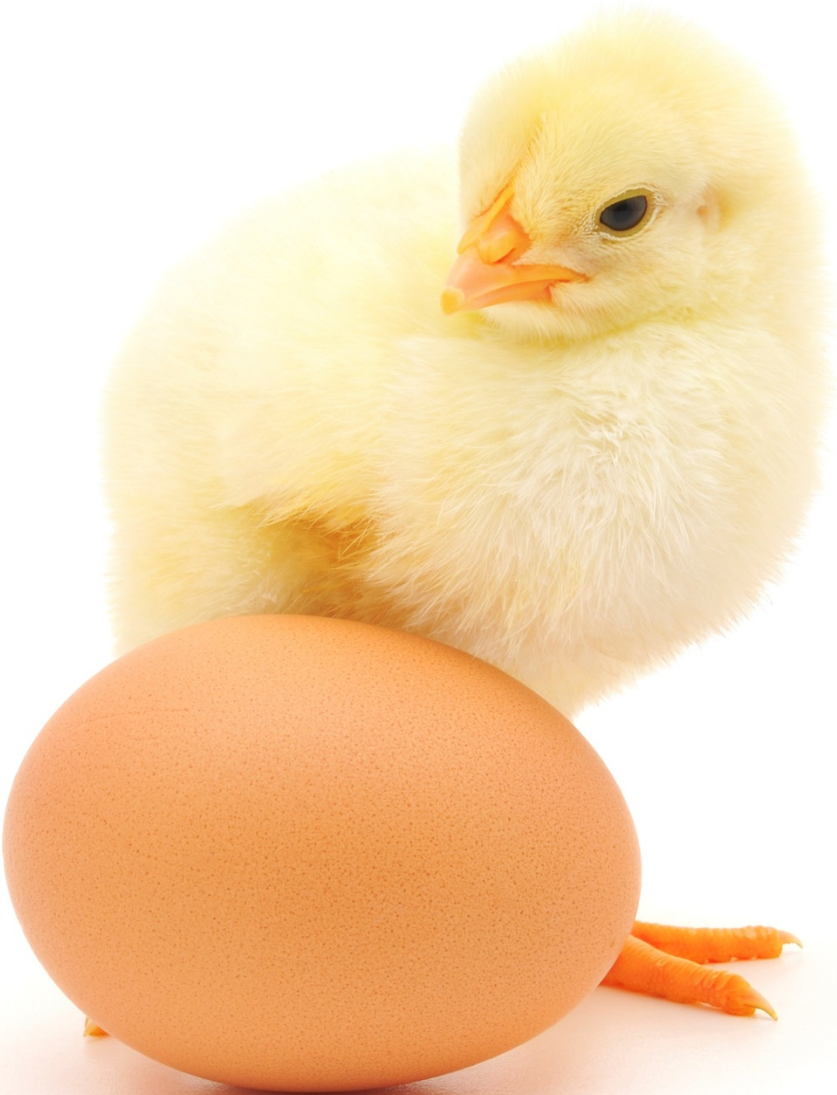
Adoption

Ubiquity

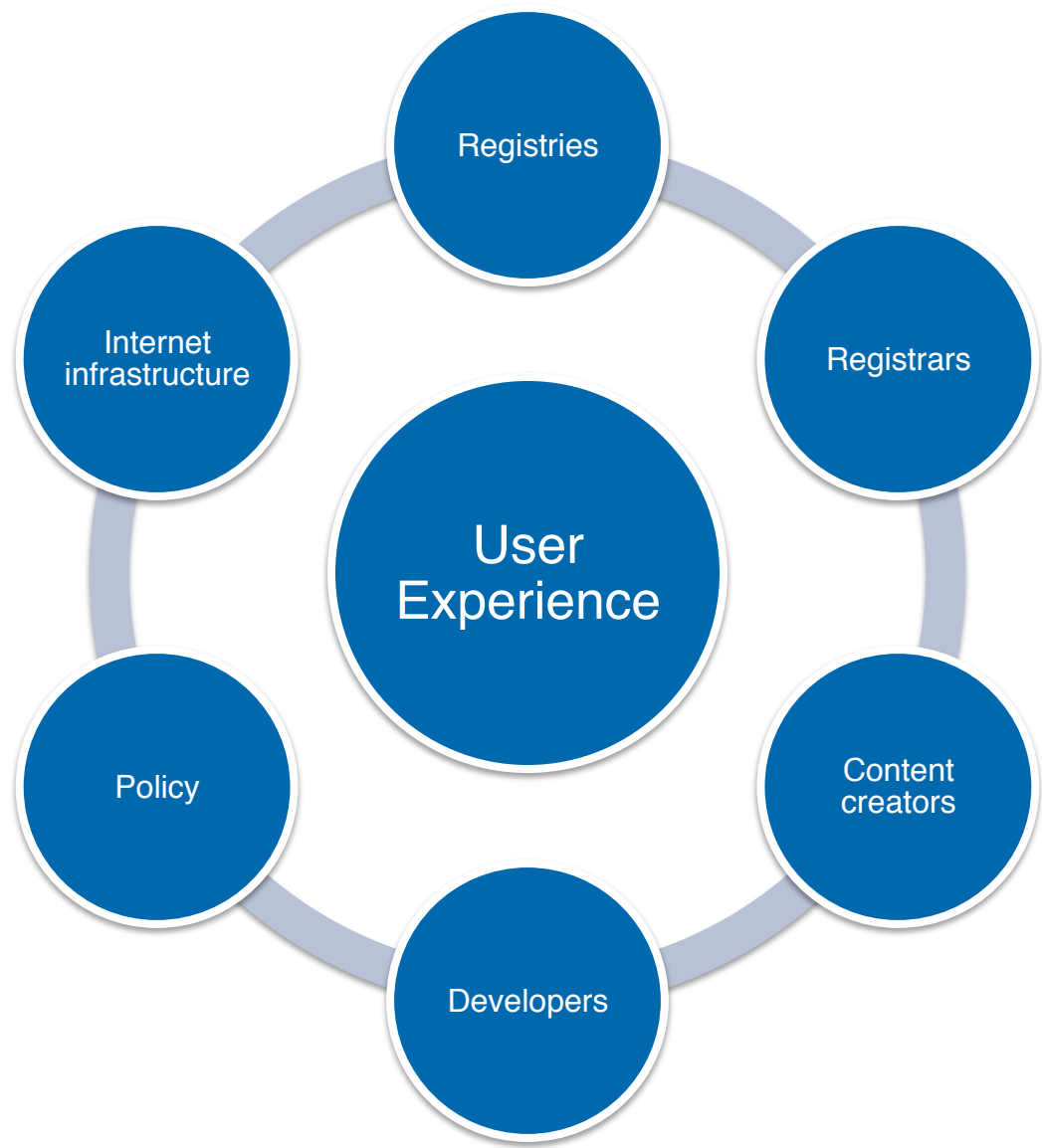




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Ecosystem



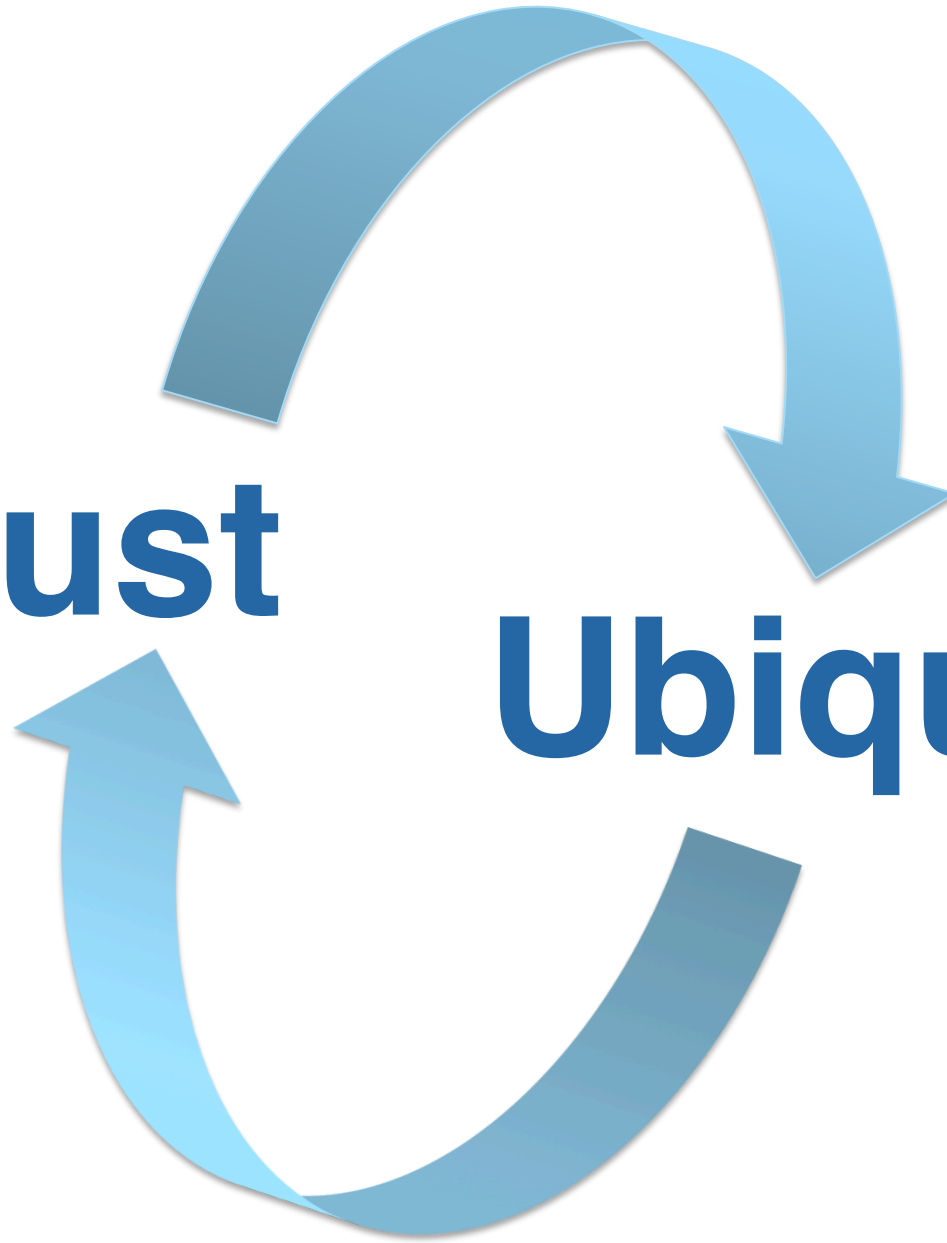


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Trust

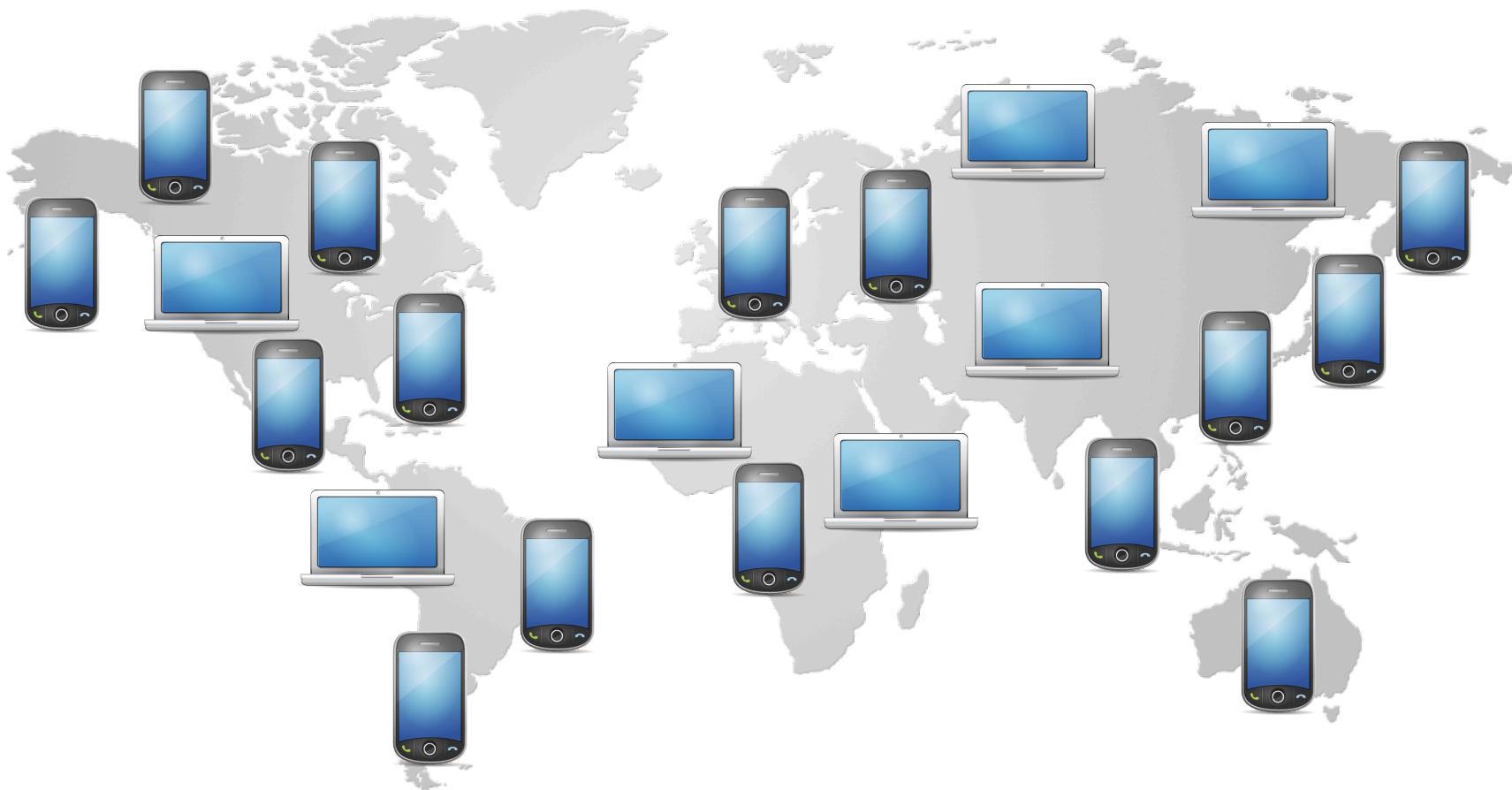
Ubiquity





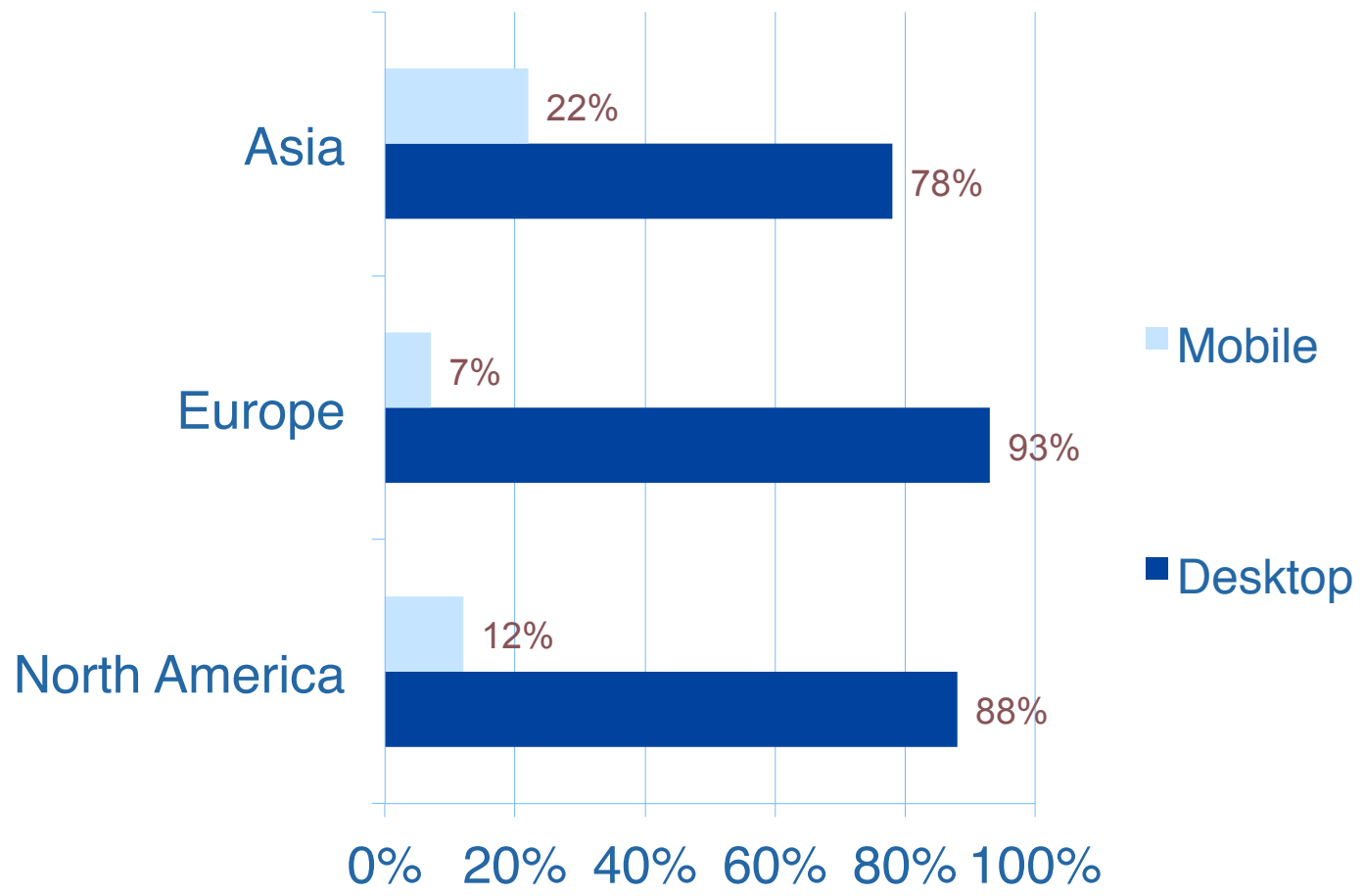
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Ubiquity



Desktop vs. Mobile usage

Q4 2012



Source: <http://gs.statcounter.com/>
Verisign Public



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Mobile Internet is predicted to overtake desktop Internet usage by 2015⁽¹⁾

(1) [34SP.com](http://econsultancy.com/us/blog/11186-will-mobile-internet-replace-desktop-infographic) accessed by <http://econsultancy.com/us/blog/11186-will-mobile-internet-replace-desktop-infographic>



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yet mobile applications often do not support internationalized characters⁽¹⁾

(1) EURId-UNESCO World report on Internationalised Domain Names deployment 2012, p.53



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**It's not
easy
nor
simple**



Diversity of Internet Users

37%

of world Internet users speak **Chinese, Japanese, Arabic, Russian or Korean**. English speakers represent 26.8%

Chinese language users alone represent the **second highest** percent of Internet users worldwide at **24%**, with a 10-year growth rate at **1,478%**

Source: adapted from <http://www.internetworldstats.com/stats7.htm>

Ecosystem





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“The point of being done is not to finish but to get other things done.”

- The Done Manifesto



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Questions?





Thank You

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