IDN, EAI AND UNIVERSAL ACCEPTANCE

Abdalmonem Galila: Universal Acceptance Ambassador

Duration: 30 Min
User Acceptance

Universal Acceptance
Every thing is about the end user
Name
Abdalmonem Galila

Occupation
Deputy Manager .Masr "مصر." IDN ccTLD “NTRA”

Backgrounds
Technical “ex. *unix, programing, administrations”
USER RIGHTS

- Do I have the right to access the internet with my own local language for a domain name?
- Do I have the right to have an email address in my own local language?
http://IndexOfEthiopia.com

IndexOfEthiopia.com@IndexOfEthiopia.com

http://dnsforum.africa
Bob Ochieng @OmondiBob  · May 14
Today, 50% of The world is connected to the Internet, but it has taken 50yrs to get to this level, are we going to take another 50yrs to connect the rest? @RealSmartAfrica #TA2019 @WorldBank @ICANN
Do You Think That **Non-Latin** Languages Are Among These Barriers!!
CONTENTS

- Warm Up Exercise
- Some Statistics
- Internationalized Domain Names
  - Why IDNs
  - User Perception
- Some Statistics
- Email Address Internationalization
  - Why EAI
  - User Perception
- Issues With The Current Systems
Universal Acceptance “UA” Steering Group “UASG”

- UA in a Nutshell
- Verbs Of UA Readiness

Conclusion

Q & A
Warm-up Exercise

According to w3techs, which of the following pie charts most closely represents the fraction of websites on the Internet that are primarily English language based content?

- 25% English, 75% All other
- 50% English, 50% All other
- 75% English, 25% All other

Actual data can be found at https://w3techs.com/technologies/history_overview/content_language/ms/y. Data shown is approximate.
Why there is a need for a multilingual website
Warm-up Exercise: Solution

According to w3techs, which of the following pie charts most closely represents the fraction of websites on the Internet that are primarily English language based content?

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Actual data can be found at https://w3techs.com/technologies/history_overview/content_language/ms/y. Data shown is approximate.
SOME STATISTICS

- Top Ten Languages Used Online
- Internet Users By Language
- Internet Users Growth
- Twitters Usage
TOP TEN LANGUAGES USED ONLINE

Top Ten Languages in the Internet in Millions of users - December 2017

- English: 1062
- Chinese: 804
- Spanish: 337
- Arabic: 219
- Portuguese: 169
- Indonesian: 168
- French: 134
- Japanese: 118
- Russian: 109
- German: 92
- All the rest: 950

Estimated total Internet users are 4,156,932,140 in December 31, 2017
Copyright © 2018, Miniwatts Marketing Group

Source: http://www.internetworldstats.com
SOME STATISTICS

INTERNET USERS BY LANGUAGE

Source: http://www.internetworldstats.com
SOME STATISTICS

INTERNET USERS GROWTH (2000 - 2018)

- Arabic: 36%
- Chinese: 10%
- Spanish: 7%
- Japanese: 14%
- Indonesian / Malaysian: 12%
- Portuguese: 9%
- French: 1%
- Russian: 3%
- German: 1%
- Rest of the Languages: 4%
- English: 3%

Source: [http://www.internetworldstats.com](http://www.internetworldstats.com)
SOME STATISTICS

Distribution of twitter usage in the Middle East and North Africa in 2016, by language

Source: https://www.statista.com
What are the messages driven from the above exercise?
ASCII Domain Names Or Email Addresses

http://google.com
agalila@mcit.gov.eg
http://icann.org

LANGUAGE BASED CONTENT

25% English
75% Non-English
IDN Domain Names Or EAI Email Addresses

http://سجل.مصر

مشرف@اختبار-سجل.مصر

http://dnsforum.africa

Domain Who Has New gTLD

LANGUAGE BASED CONTENT

25%

75%

English

Non-English
INTERNATIONALIZED DOMAIN NAMES
THE INTERNET HAS EVOLVED

Generic (22 total)
- .com
- .edu
- .org
- .net
- .aero
- .asia
- .mobi
- .travel
- .info

Country Code (Over 200 total)
- .uk
- .jp
- .de
- .fr
- .cn
- .in
- .br
- .mx

Generic (Over 1,300 total)
- .com
- .edu
- .org
- .net
- .aero
- .info
- .bank
- .bar
- .global
- .sk
- .vote
- .rio

Country Code (Nearly 300 total)
- .uk
- .jp
- .de
- .cn
- .in
- .br
- .рф
- .台湾
- .한국
- .한글

2009

2019
WHAT’S CHANGED

- More Top-Level Domains (TLDs) Available
- No longer just two or three characters
- No longer just in ASCII
- List of TLDs is no longer static. Names added and deleted.
- Mailbox names also no longer just in ASCII

 asia
.accountant
.ファッション
.aaa
.莫斯科
.भारत
.公益
.amex
.كوم
WHY IDNS

- Will help customers remember a domain name more easily: 57% (China), 56% (Korea)
- Will help to better communicate/market web addresses verbally: 39% (China), 32% (Korea)
- Are easier for local customers to use: 37% (China), 45% (Korea)
- Will help better reach local customer base: 32% (China), 35% (Korea)
USER PERCEPTION

- IDN domain names displayed correctly in familiar way
- IDN domain names accepted when I want to have a hosting space
- ASCII domain names and IDN names should be treated equally
- Search engines, social media applications, software tools, browsers, … etc handle IDNs correctly
SOME STATISTICS

- How Much Email Do We Use Daily?
  - 201.4+ Billion Emails Sent/Received Per Day Worldwide
  - 8.3+ Billion Emails Sent/Received Per Hour Worldwide

- 5.5+ Billions Worldwide Email Accounts Expected By 2019

**WORLDWIDE EMAIL ACCOUNTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>4,353</td>
</tr>
<tr>
<td>2016</td>
<td>4,626</td>
</tr>
<tr>
<td>2017</td>
<td>4,920</td>
</tr>
<tr>
<td>2018</td>
<td>5,243</td>
</tr>
<tr>
<td>2019</td>
<td>5,594</td>
</tr>
</tbody>
</table>

**WORLDWIDE EMAIL USERS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2,586</td>
</tr>
<tr>
<td>2016</td>
<td>2,672</td>
</tr>
<tr>
<td>2017</td>
<td>2,760</td>
</tr>
<tr>
<td>2018</td>
<td>2,849</td>
</tr>
<tr>
<td>2019</td>
<td>2,943</td>
</tr>
</tbody>
</table>

Source: https://www.radicati.com/
SOME STATISTICS

> Only 26% of internet users are English users.

**INTERNET USERS BY LANGUAGE**

- English: 26%
- Chinese: 21%
- Spanish: 8%
- Arabic: 5%
- Portuguese: 4%
- French: 3%
- German: 2%
- Rest of the Languages: 22%

*Source: [http://www.internetworldstats.com](http://www.internetworldstats.com)*
What are the messages driven from the above statistics?
• E-Mail is the most popular used application Worldwide.

• Number of E-Mail accounts still increasing.

• Non-English users more than English users
EMAIL ADDRESS
INTERNATIONALIZATION
WHY EAI

- Keep my online identity through using my own local language.
- Preserve my local cultural and traditional heritage.
- Easier to remember and to communicate will with other online users.
- IDN, local content websites and EAI.
- It is natural to use local language to access your email for the people around the world.
USER EXPECTATION

- MUA “Email Client” should be able to process EAI emails
- MTA “Email Servers” should be able to process EAI emails
- Ability to send | receive emails from another parties
- EAI address usage across the internet same as the legacy address “Social media, mail hosting, … etc.”
- Anti-Spam engines will be able to do its work
ISSUES WITH THE CURRENT SYSTEMS

- You can't get a HTTPS certificate for your IDN name
- There are some issues related to mixing between LTR and RTL scripts in the same label
- You can't sign up for social media's like Facebook, Twitter ....etc. using your EAI address
- Some of the email servers do not support EAI
- Some of the email clients do not process EAI addresses correctly
- Most of the internet enabled applications could not handle domain names or email address using the new gTLDs
CURRENT SYSTEMS

Create a new account
It's free and always will be.

It looks like you may have entered an incorrect email address. Please correct it if necessary, then click to continue.

عبدالمتعم

agalila@dnsec.dubai

agalila@dnsec.dubai

**********

Birthday

13 Apr 1982

Why do I need to provide my date of birth?

Female  Male
CURRENT SYSTEMS
CURRENT SYSTEMS

Name(s) to Secure

Something is wrong

- . is an internal name.
- Certificates with internal names are no longer permitted. Try rescoping it to your public domain (i.e.: localhost.yourdomain.com). For more information, please visit: www.digicert.com/internal-names.htm.

Common Name: 

(Optional) I would like to provide my CSR and auto-fill names now.

What is a CSR?
In 2017 only 8% of the top websites could handle our sample set of non-English email addresses and top-level domains longer than the traditional two or three English characters. Only 1 of the top browsers met all our evaluation criteria.
"A satisfied customer is the best business strategy of all."

Michael LeBoeuf
UNIVERSAL ACCEPTANCE STEERING GROUP

- Founded in February 2015
- Tasked with undertaking activities that will effectively promote the Universal Acceptance of all valid domain names and email addresses
- Comprised of more than 120 companies (including Afilias, Apple, CNNIC, Go Daddy, Google, Microsoft, THNIC and others), governments and community groups
BENEFITS OF UA ADOPTION

- There is a combined USD 9.8 billion annual opportunity coming from software systems working in harmony with the common Internet infrastructure. This is a conservative estimate.

- Support for IDNs, which allow domain names in all of the world’s languages, could bring 17 million additional new users online. These include users whose lack of local language services was previously a barrier to a complete online experience.
UA IN A NUTSHELL

Universal Acceptance (UA) ensures that all domain names and email addresses can be used by all Internet-enabled applications, devices and systems.
IS YOUR SYSTEM READY FOR OPENING BUSINESS TO THE NEXT BILLION INTERNET USERS
TARGETED SYSTEMS

- Ask yourself these questions:
  - Does it have a field for a domain name
  - Does it have a field for an email address
  - Does your software read | write a domain name from | to file
  - Does your software read | write an email address from | to file
VERBS OF UA READINESS

Accept
Validate
Store
Process
Display
VERBS OF UA READINESS
Since the Unicode standard is continually expanding, check code points not defined when application / service was created – shouldn’t “break” user experience.

Use supported Unicode-enabled APIs

Use latest Internationalized Domain Names in Applications (IDNA) Protocol & Tables documents for Internationalized Domain Names (IDNs).
Tools & Resources for Developers

Authoritative Tables:
* http://www.internic.net/domain/root.zone
* http://www.dns.icann.org/services/authoritative-dns/index.html
* http://data.iana.org/TLD/tlds-alpha-by-domain.txt
* See also SAC070: https://tinyurl.com/sac070

Internationalized Domain Names for Applications:

Unicode:
* Security Considerations: http://unicode.org/reports/tr36/
* IDNA Compatibility Processing: http://unicode.org/reports/tr46/
Universal Acceptance

https://uasg.tech/
Thank You