IDN, EAI AND UNIVERSAL ACCEPTANCE

Abdalmonem Galila: Universal Acceptance Ambassador
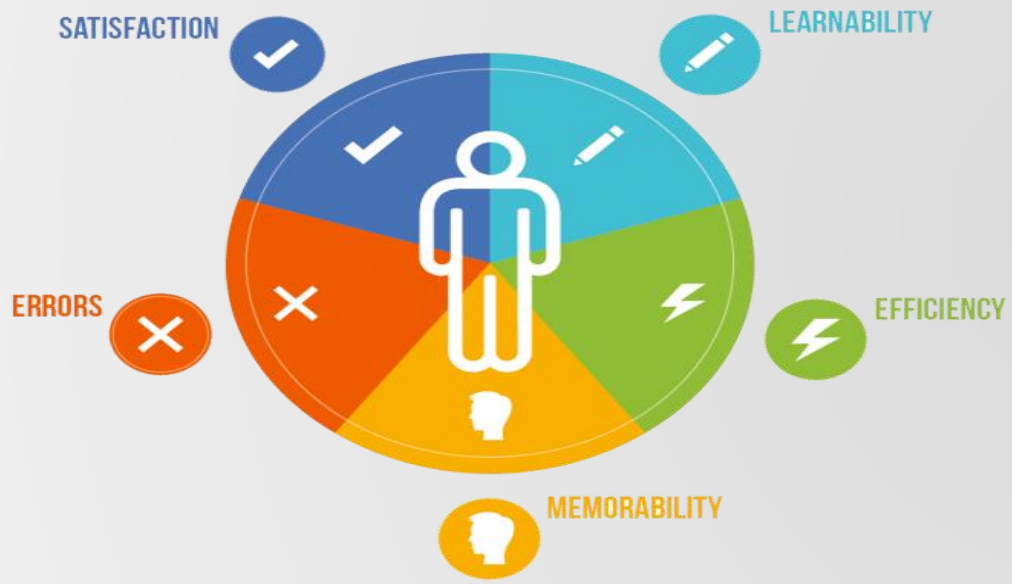
Duration: 30 Min

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User Acceptance

Universal Acceptance

//*.*/

Every thing is about the end user

"I want everything"

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Name

Abdalmonem Galila

Occupation

Deputy Manager .Masr "مصر." IDN ccTLD "NTRA"

Backgrounds

Technical "ex. *unix, programing, administrations"

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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://ኢትዮጵያ.አፍሪካ

ኢትዮጵያ.አፍሪካ@ኢትዮጵያ.አፍሪካ

http://dnsforum.africa

//*.*/

Do You Think That **Non-Latin** Languages Are Among These Barriers !!

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dns ec.

//*.*/
CONTENTS[1]

- ❖ Warm Up Exercise

- ❖ Some Statistics

- ❖ Internationalized Domain Names
    - ❑ Why IDNs
    - ❑ User Perception

- ❖ Some Statistics

- ❖ Email Address Internationalization
    - ❑ Why EAIs
    - ❑ User Perception

- ❖ Issues With The Current Systems

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CONTENTS₂

- ❖ <u>U</u>niversal <u>A</u>cceptance "**UA**" <u>S</u>teering <u>G</u>roup "**UASG**"

  - ❑ UA in a Nutshell

  - ❑ Verbs Of UA Readiness

- ❖ Conclusion

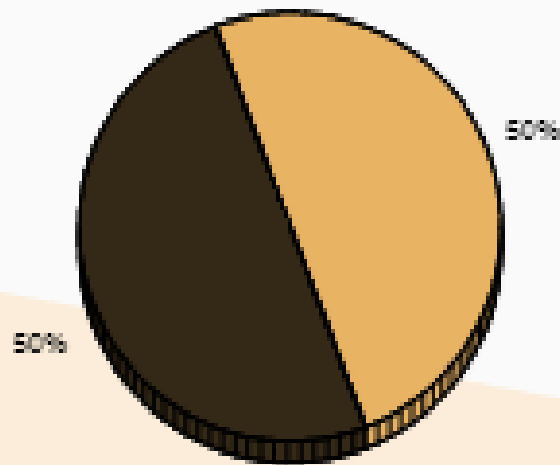- ❖ Q & A

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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?
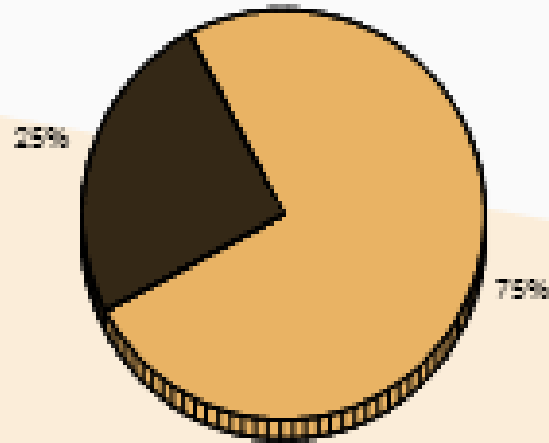
25% English
75% All other

50% English
50% All other

75% English
25% All other

Why there is a need for
a **multilingual** website

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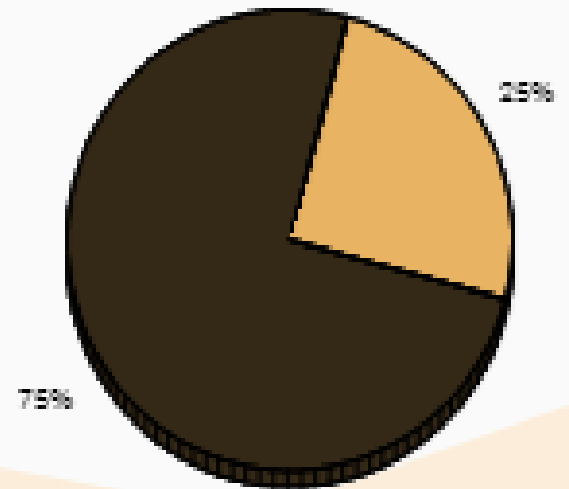neurship
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Warm-up Exercise: Solution

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?
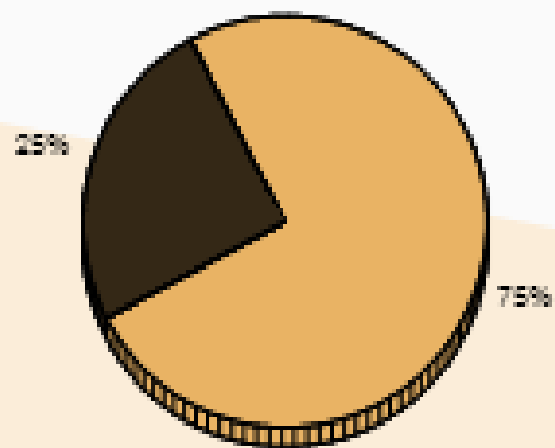

25% English
75% All other
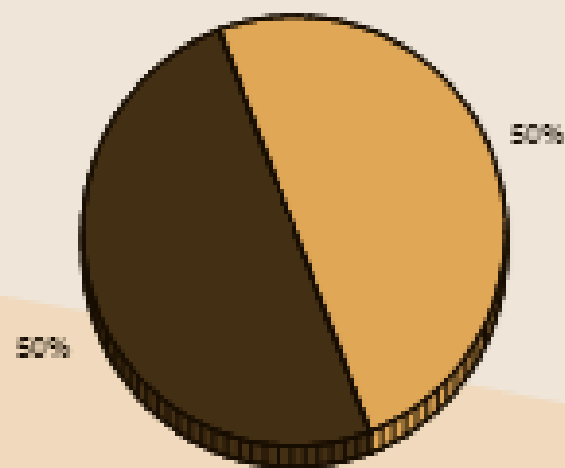
50% English
50% All other

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.
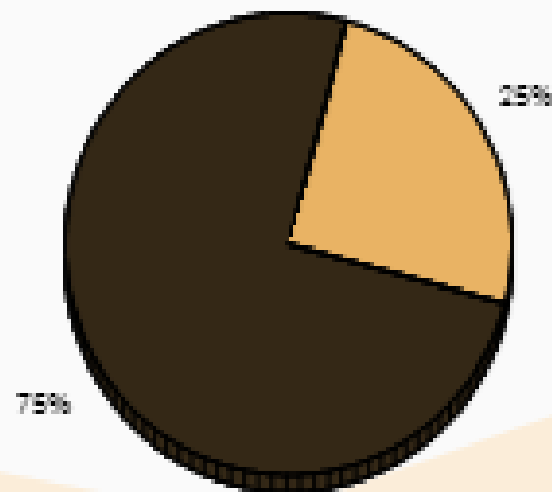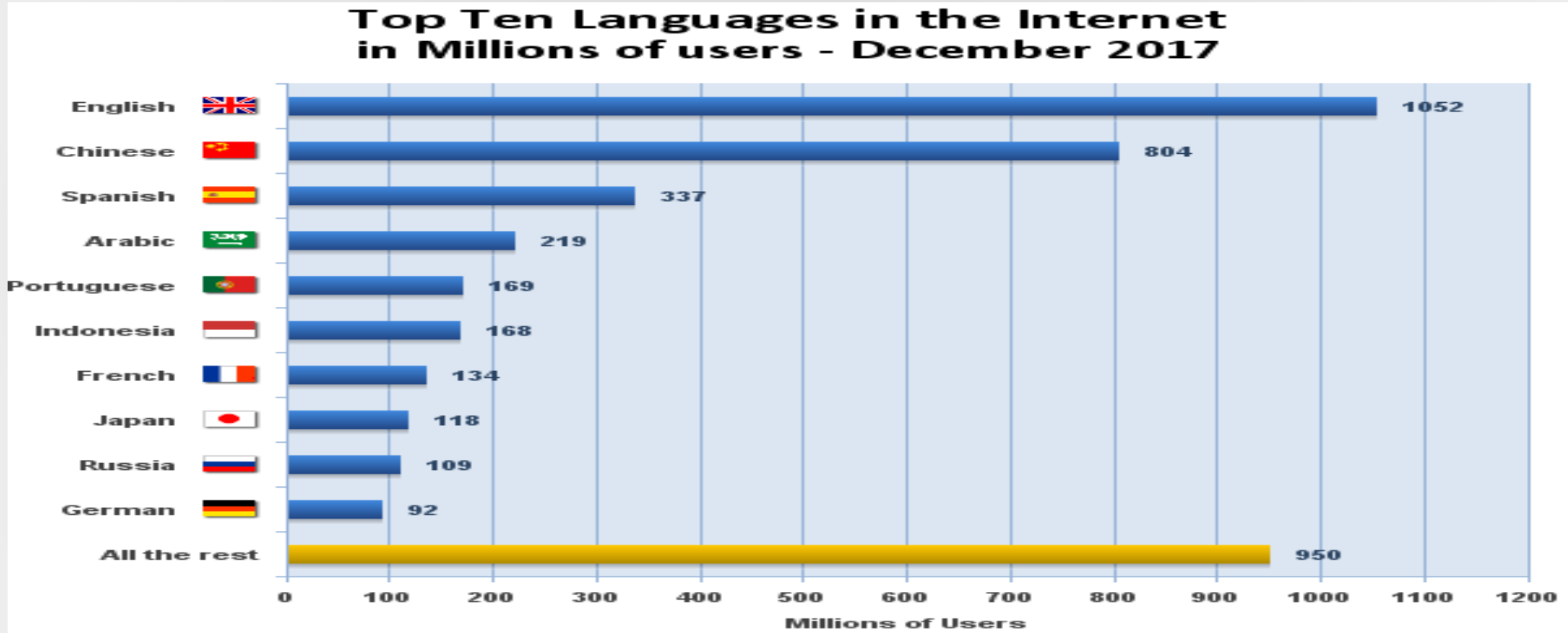
SOME STATISTICS

❑ 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

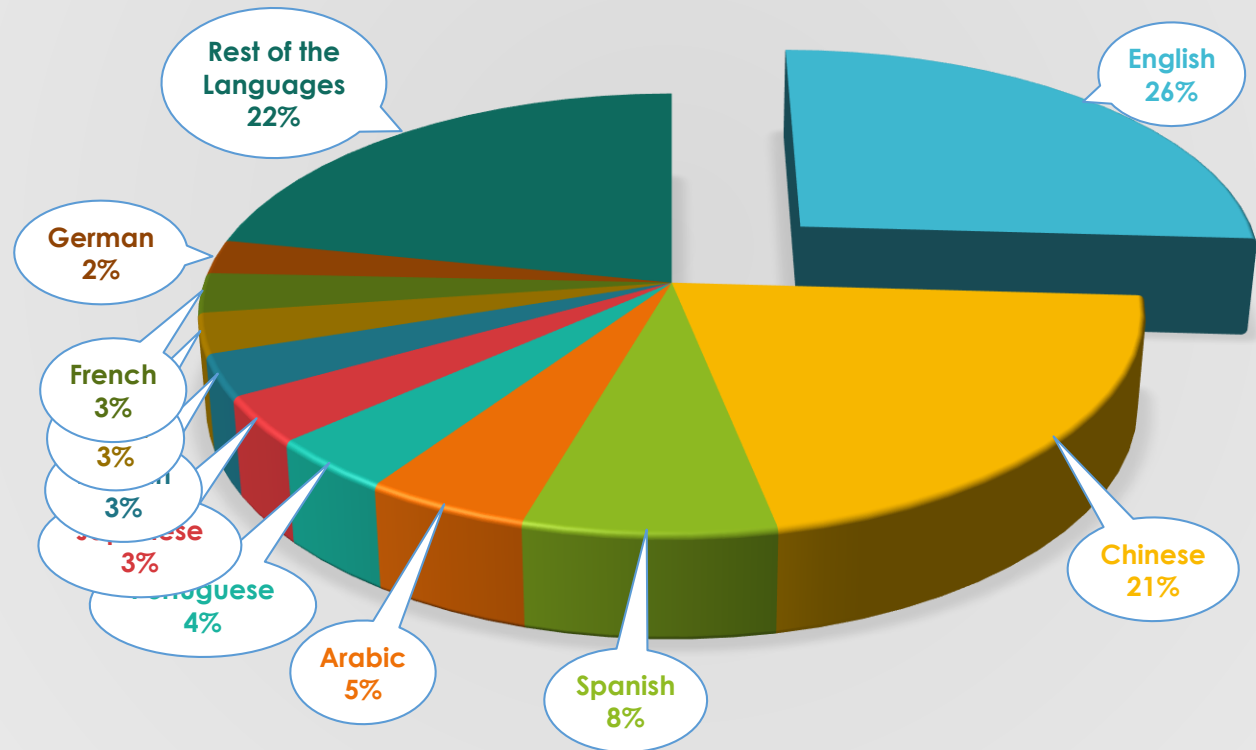| Language		Millions of Users
English	🇬🇧	1052
Chinese	🇨🇳	804
Spanish	🇪🇸	337
Arabic		219
Portuguese	🇵🇹	169
Indonesia	🇮🇩	168
French	🇫🇷	134
Japan	🇯🇵	118
Russia	🇷🇺	109
German	🇩🇪	92
All the rest		950

Millions of Users

Source: Internet World Stats - www.internetworldstats.com/stats7.htm
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

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

Source : http://www.internetworldstats.com

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SOME STATISTICS

INTERNET USERS GROWTH (2000 - 2018)

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

Source : http://www.internetworldstats.com

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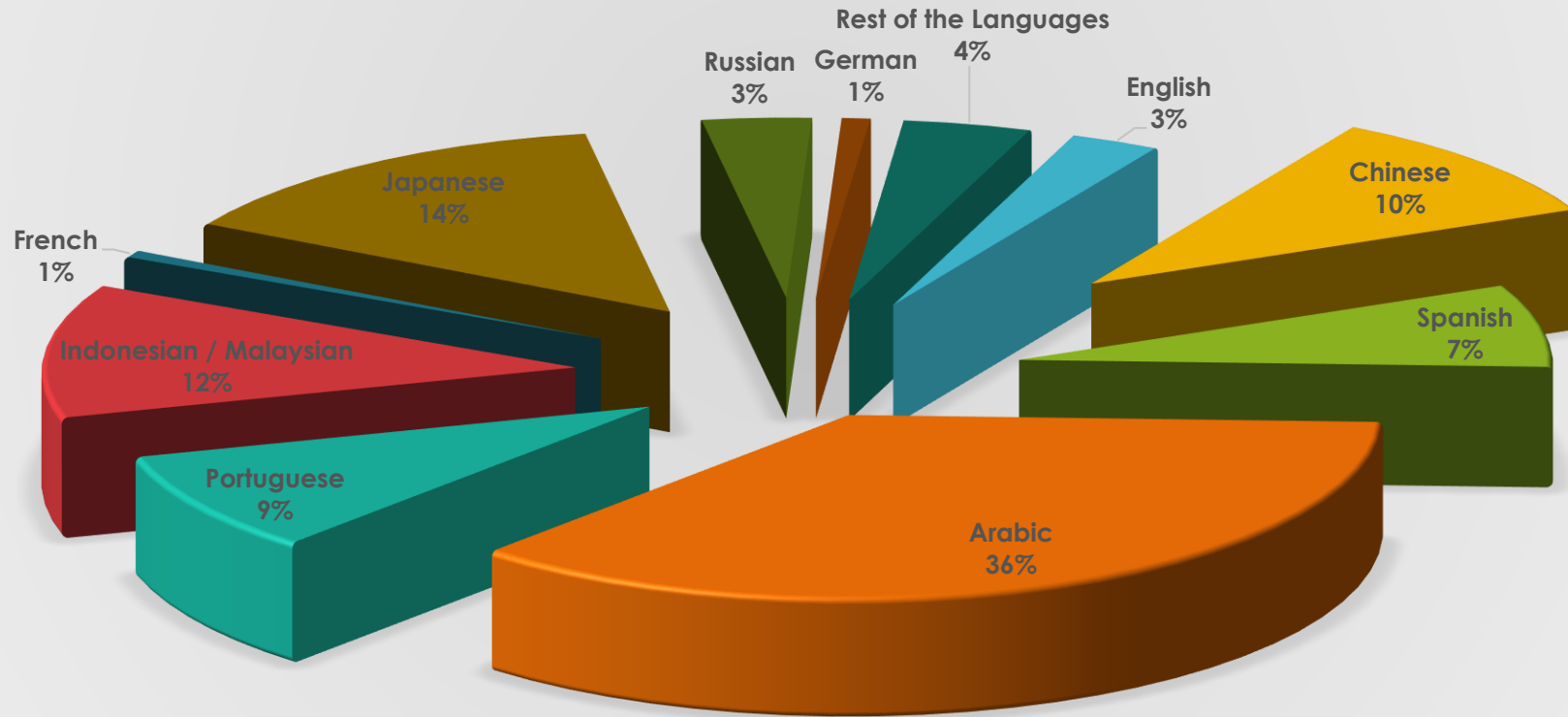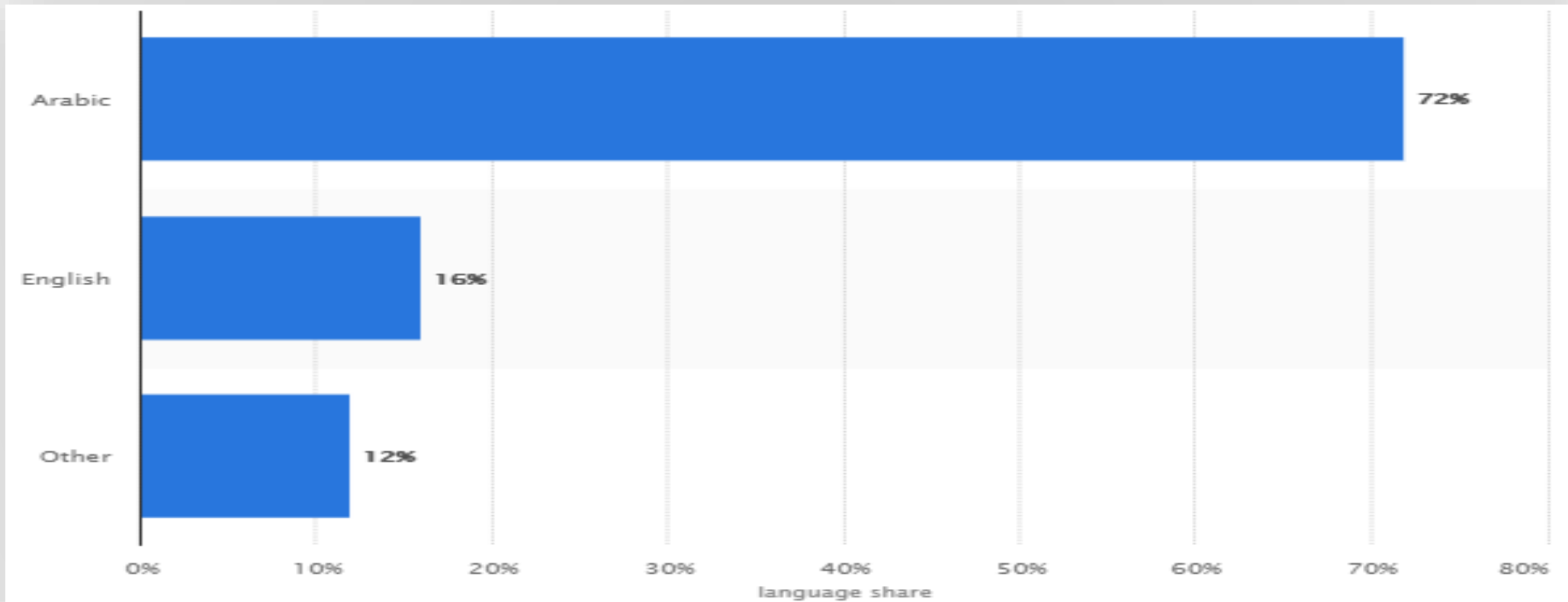
SOME STATISTICS

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 ?

//*.*/

http://google.com

agalila@mcit.gov.eg

http://icann.org

LANGUAGE BASED CONTENT

25%

75%

■ English ■ Non-English

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//*.*/
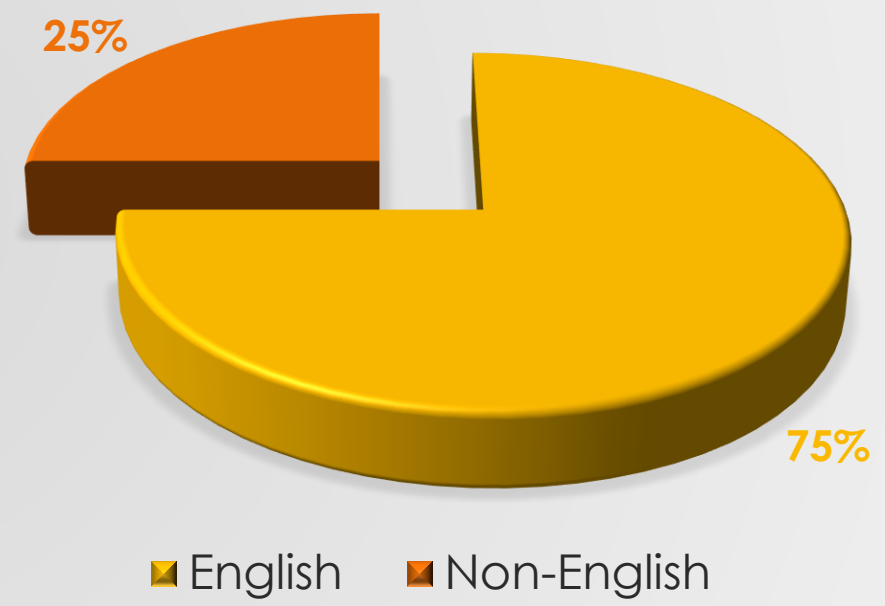
IDN Domain Names Or
EAI Email Addresses

http://سجل.مصر

مشرف@اختبار–سجل.مصر

http://dnsforum.africa

LANGUAGE BASED CONTENT

25%

75%

□ English   □ Non-English

Domain Who Has New
gTLD

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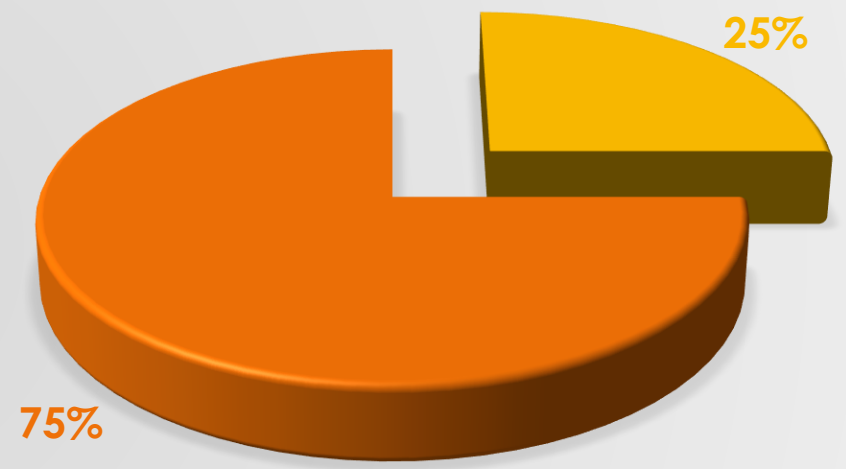
INTERNATIONALIZED DOMAIN NAMES

//*.*/ THE INTERNET HAS EVOLVED

2009 — 2019

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	.london
.car	.global	.sky
.rio	.vote	ابوظبي.
.संगठन	.在线	.club
.닷넷	.ストア	.дети

Country Code
(Nearly 300 total)

.uk	.jp
.de	.cn
.in	.br
.рф	.台灣
.한국	.ভারত

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23

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   .ファッション   .amex

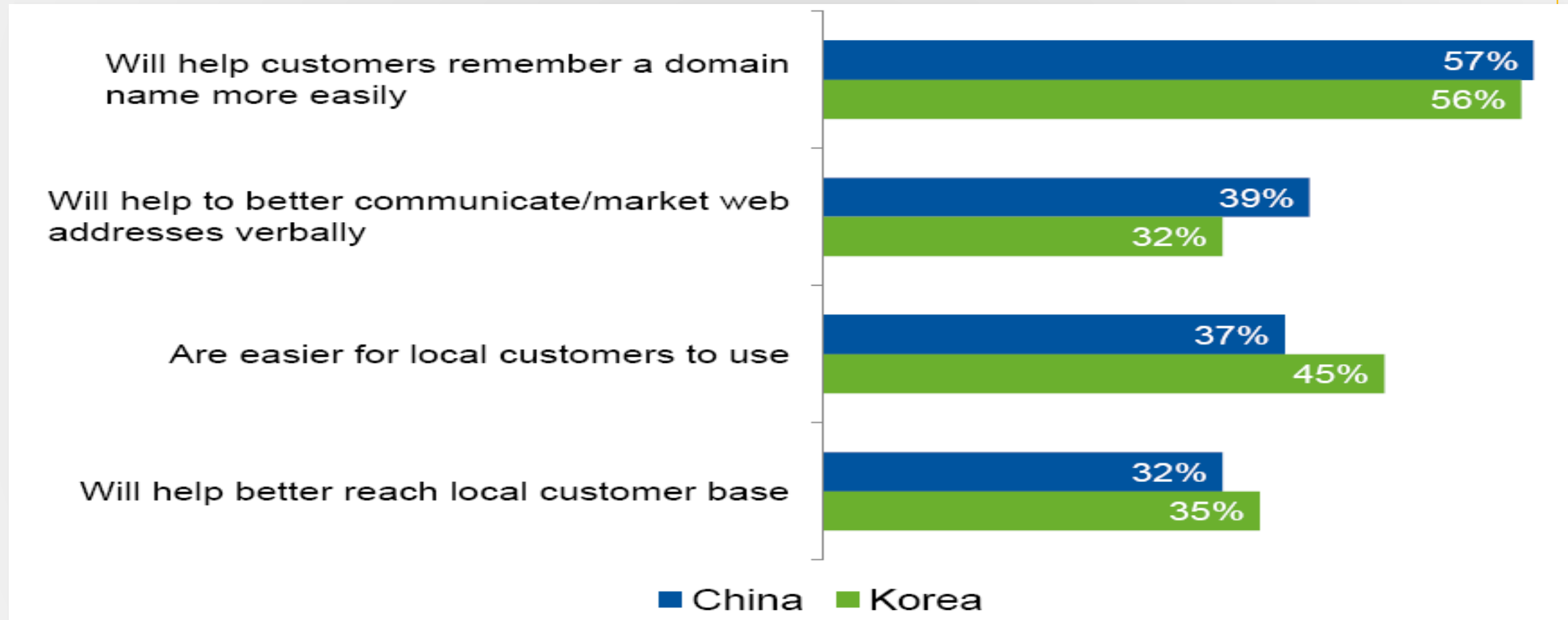.accountant   .aaa

كوم.   .ভারত   .公益

.москва   .קom

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WHY IDNS

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

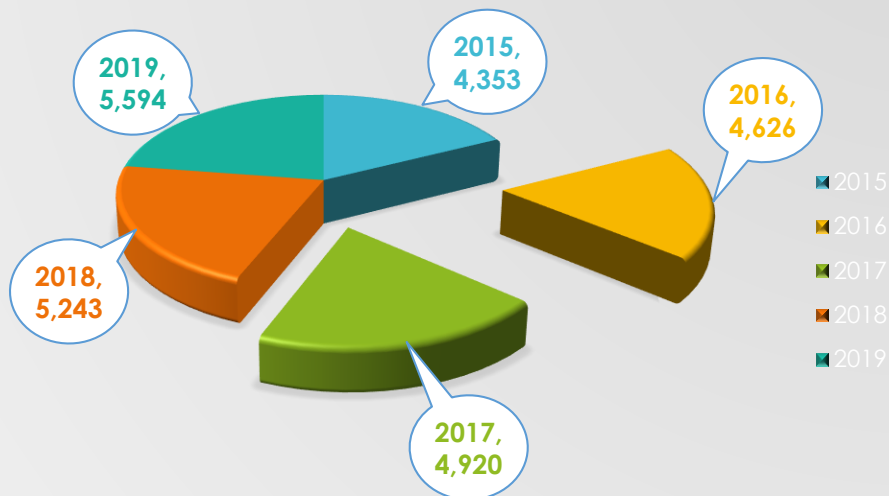Search engines, social media applications, software tools, browsers, … etc handle IDNs correctly

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SOME STATISTICS

❖How Much Email Do We Use Daily?
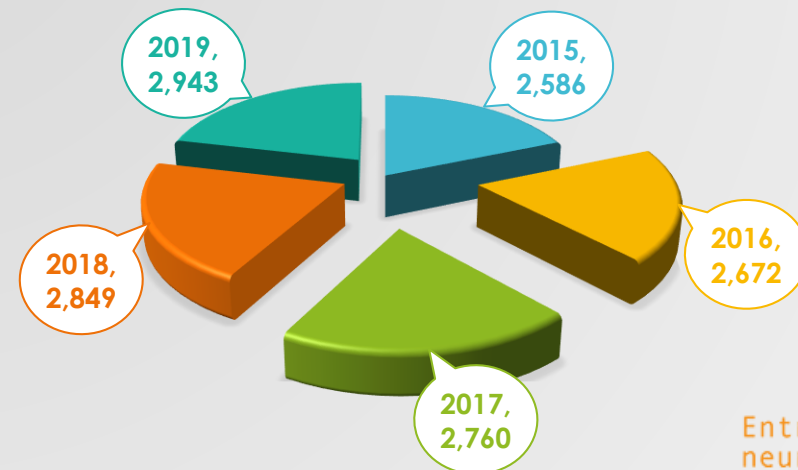
  ❑ 201.4+ Billion Emails Sent/Received Per Day Worldwide

  ❑ 8.3+ Billion Emails Sent/Received Per Hour Worldwide

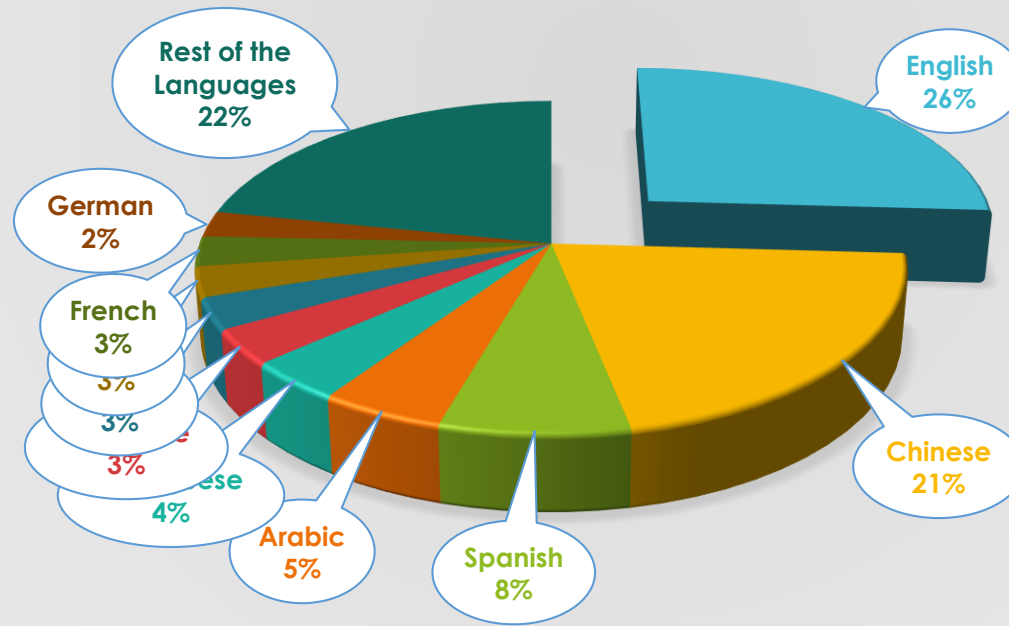❖5.5+ Billions Worldwide Email Accounts Expected By 2019

WORLWIDE EMAIL ACCOUNTS

2019, 5,594
2015, 4,353
2016, 4,626
2018, 5,243
2017, 4,920

2015
2016
2017
2018
2019

WORLDWIDE EMAIL USERS

2019, 2,943
2015, 2,586
2016, 2,672
2018, 2,849
2017, 2,760

Source :-https://www.radicati.com/

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SOME STATISTICS

❖ Only 26% of internet users are English users.

INTERNET USERS BY LANGUAGE

Rest of the Languages 22%

English 26%

German 2%

French 3%

3%

3%

3%

4%

Chinese 21%

Arabic 5%

Spanish 8%

Source : http://www.internetworldstats.com

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//*.*/

What are the messages driven from
the above statistics ?

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//*.*/

- E-Mail is the most popular used application Worldwide.

- Number of E-Mail accounts still increasing.

- Non-English users more than English users

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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.

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USER EXPECTATION

MUA "Email Client" should 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

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ISSUES WITH THE CURRENT SYSTEMS

❖ You can't get a HTTPs certificate for your IDN name

❖ There 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 you EAI address

❖ Some of the email servers does not support EAI

❖ Some of the email clients does not process EAI addresses correctly

❖ Most of the internet enabled applications could not handle domain names or email address using the new gTLDs

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CURRENT SYSTEMS

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 (ie: *localhost.yourdomain.com*). For more information, please visit: www.digicert.com/internal-names.htm.

Common Name: سجل.مصر

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

What is a CSR?

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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.

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

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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.

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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.

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//*.*/

IS YOUR SYSTEM READY FOR

OPENING BUSINESS TO THE NEXT BILLION INTERNET USERS

R U READY?

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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

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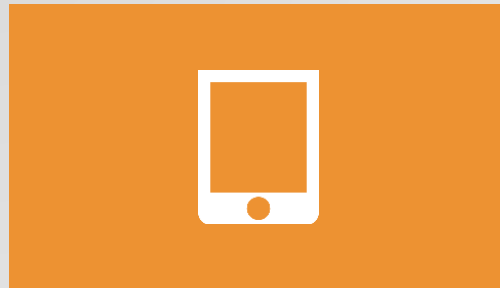Center

VERBS OF UA READINESS

Accept

Validate

Store

Process

Display

VERBS OF UA READINESS

SUMMARY

Accept   **Validate**   **Store**   **Process**   **Display**

❖ 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).

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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:

* Tables: https://tools.ietf.org/html/rfc5892
* Rationale: https://tools.ietf.org/html/rfc5894
* Protocol: https://tools.ietf.org/html/rfc5891

Unicode:

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

Universal Acceptance Steering Group info & recent developments: www.uasg.tech

https://uasg.tech/