

Evaluation of Web Sites for Acceptance of a Variety of Email Addresses

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Executive Summary

After reviewing more than 1,000 of the most popular websites, we found that just 8% accepted all email addresses (including EAI addresses and addresses with new top level domain (TLDs), long TLDs and Internationalised Domain Names. The rate improved for ASCII mailbox names (30%) rising to 91% for new, short TLDs in ASCII.

Background

Universal Acceptance is a foundational requirement for a truly multilingual Internet, one in which users around the world can navigate entirely in local languages. It is also the key to unlocking the potential of new generic top-level domains (gTLDs) to foster competition, consumer choice and innovation in the domain name industry. To achieve Universal Acceptance, Internet applications and systems must treat all TLDs in a consistent manner, including new gTLDs and internationalized TLDs. Specifically, they must accept, validate, store, process and display all domain names.

EAI (email address internationalization) expands on the idea of domain names in non-ASCII characters by also allowing mailbox names to be in non-ASCII characters. This evaluation tested both UA and EAI readiness.

The Universal Acceptance Steering Group (UASG) is a community initiative that is supported by ICANN.

The Evaluation

Building on work started by Donuts, the UASG has, through ICANN's Global Support Center team, evaluated more than 1000 websites (based on Alexa ranking) to see if they allow registration with a variety of email structures:

ascii@ascii.newshort	info1@ua-test.link
ascii@ascii.newlong	info2@ua-test.technology
ascii@idn.ascii	info3@普遍接受-测试.top
ascii@ascii.idn	info4@ua-test.世界
Unicode@ascii.ascii	测试1@ua-test.link
Unicode@idn.idn	测试5@普遍接受-测试.世界
Arabic.arabic@arabic	دون@رسيل.السعودية

For each website tested, a page that allowed registration of an email address was found and attempts were made to register each of the evaluation cases.

Results

We have gone through 1262 websites.¹

Out of these, 749 websites are including email fields that could be tested.

7 different email addresses were tested.

54 websites accepted all 7 types of email address. (7% are UA ready)

47 websites rejected all 7 types of email address. (6% are not accepting neither EAI (IDNs) or New gTLDs)

This table demonstrates how many websites accepted each type of email, and in the right-most column, you can see the rate of acceptance out of all websites tested.

EMAILS TESTED		Rate of Acceptance (out of 749 websites)	
ascii@ascii.newshort	info1@ua-test.link	685	91%
ascii@ascii.newlong	info2@ua-test.technology	585	78%
ascii@idn.ascii	info3@普遍接受-测试.top	335	45%
ascii@ascii.idn	info4@ua-test.世界	221	30%
Unicode@ascii.ascii	测试1@ua-test.link	108	14%
Unicode@idn.idn	测试5@普遍接受-测试.世界	61	8%
Arabic.arabic@arabic	دون@رسيل.السعودية	57	8%

Error Messages

The error messages received were common, often in the form of:

- Invalid character to the left of the @
- A part followed by @ should not contain the symbol x
- Characters that cannot be used in the e-mail address has been used
- Enter the email address in the format someone@example.com
- Please enter the email address correctly (a valid email address)
- Email address does not look valid
- Hmm...that doesn't look like an email address.
- Email is too long - needs to be less than or equal 50 characters.
- Email address must be composed of ASCII characters.

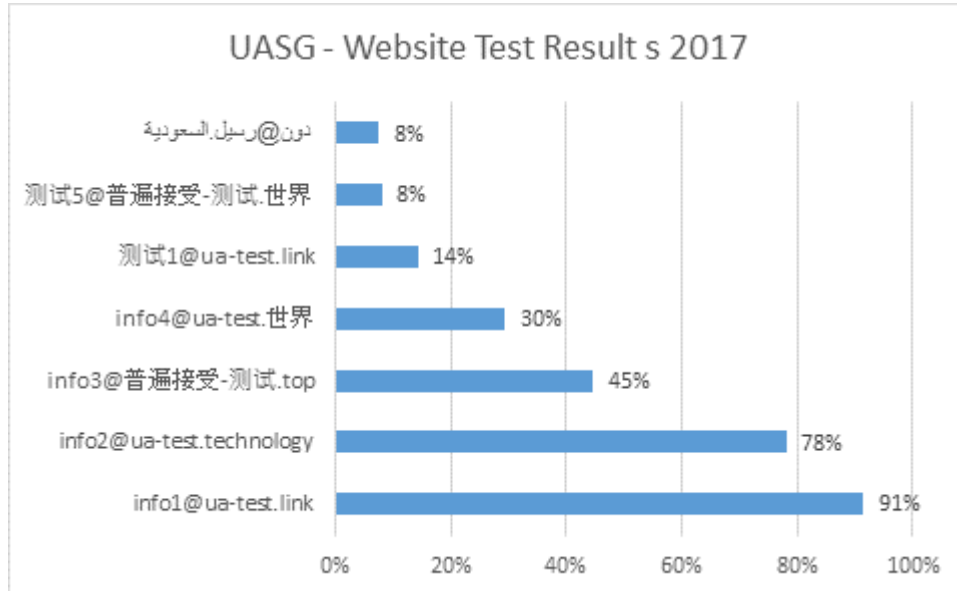
¹ Full results are available

<https://docs.google.com/spreadsheets/d/1T7sbUUBqDTsNWeUrkwXZLcpjlx8qi-Ty6eH6DrOVdg/edit?usp=sharing>

- Your E-mail Address cannot contain special characters other than @(at), .(period), -(dash), _(underscore)

Analysis

Clearly an ascii@ascii.ascii had the highest acceptance rate and Arabic.arabic@arabic (as well as Unicode@idn.idn) the lowest.



Conclusion

There is much work to be done to get many of the world's website UA & EAI Ready, but by focusing on some common utilities the task will be accelerated.

The UASG continues to work with the Open Source programming language community to get their application UA and EAI ready.