UA Measurement WG Meeting
7 August 2019

Attendees

Abdalnonem Galila

Chokri Ben Romdhane

Dennis Tan Tanaka

Hazem Hezzah

Jennifer Chung

Marc Blanchet

Mark Datysgeld

Mauricia Abdol

Nitin Walia

Sarmad Hussain

Agenda

1. Review action items
   - Write a framework to look at UA readiness of programming languages (Python as a pilot).
   - UA-readiness matrix (Browsers) https://docs.google.com/document/d/1-mRhBNetSKkQ3dc_ivQRU0YsrbBVkir9eB1nWwM0rSk/edit?usp=sharing
2. Student project
3. AOB

Action Items from Previous Call

No.	Action Item	Owner
1	Write a framework to look at UA readiness of programing languages (Python as a pilot) based discussion on the call.	Marc Blanchet, Michael Casadevall, Mark Datysgeld
2	Circulate initial high-level grid to capture the measurement space for UA-Readiness to Measurement WG and UA discuss mailing list for input on list and use cases for mobile applications by next week (August 2), and social media by the week after (August 16).	Dennis Tan Tanaka

Meeting Notes

Framework to look at Programming Languages. The members started with the discussion on review of open-source repositories for code to determine the following:

a) whether packages are using a i18n library, if so then
b) determine which i18n libraries are being used (e.g. IDNA2003, IDNA2008, or something else)

Objective:

- Determine usage of i18n libraries of applications available in open source code repositories

Scope (Pilot)

- Programming language: Python
- Code repository: GitHub
- What applications to review? Based on usage? What criteria? – we don't want information about source code that is not used/maintained?
- Tests:
  o Domain name validation

Expected outcomes

- Report of usage
- Proposed solutions to fix the code (maybe for next phase?)

Topic	Examples	I18n/EAI support
Application	Accounting software	A) Yes/No?
Libraries used by Application	to process hostname and email addresses	B) Yes/No?
Programming Language used by Application and library	Python, Java	C) Yes/No?
Operating System	Linux	D) Yes/No?

Discussion on the UA-Measurement mailing list mentioned that the group can leverage the university student project (Agenda Item 3) to work on this exercise. It was also mentioned that there will be a hackathon with 70+ engineers that could also be called on to work on this project as appropriate.

The group considered the scope of this exercise and mentioned it could build upon the study done in UASG018: https://uasg.tech/wp-content/uploads/documents/UASG018-en-digital.pdf . UASG018 focused on programming languages and libraries, whereas this project could look at how applications and software packages use i18n libraries. There were further questions regarding whether this project would be looking at a wider range of code that not only looked at IDNA libraries (IDNA2003 or 2008), but expand to instances of code that was being used to validate only ASCII domain names or email addresses found in the recent study of the top 1000 websites, where in some places the top 20 legacy TLDs are hard coded into validation. Example from study below does not use IDN-related libraries.

```
/^[-a-z0-9~!$%^&*_=+}{\'?]+(\.[-a-z0-9~!$%^&*_=+}{\'?]+)*@([a-z0-9_][-
a-z0-9_]*(\.[-a-
z09_]+)*\.(aero|arpa|biz|com|coop|edu|gov|info|int|mil|museum|name|net
|org|pro|travel|mobi|[a-z][a-z])|([0-9]{1,3}\.[0-9]{1,3}\.[0-
```

```
9]{1,3}\.[0-9]{1,3}))(:[0-9]{1,5})?$/i
```

Some preliminary discussion explored creating a Best Current Practice document on how to develop IDN/EAI compliant application software using the proper libraries. As the scoping of the project required more discussion, it was agreed that the discussion will be taken to the UA Measurement mailing list.

UA-readiness matrix (Browsers)

An initial matrix has been developed at https://docs.google.com/document/d/1-mRhBNetSKkQ3dc_ivQRU0YsrbBVkir9eB1nWwM0rSk/edit?pli=1. The details need to be filled in by all the members. It was suggested to move the discussion on populating the cases to the mailing list to get as much input as possible to get a good list of applications and use cases to test.

Student Projects

It was suggested that the Measurement WG members help steer the student project led by Dr. Sam Goundar who will be reaching out to the WG in the upcoming weeks. It was agreed that it is important to engage with the universities and get the UASG name to these circles, and if successful can be expanded to other universities.

AOB

Members were informed that a wiki page has been created for the Measurement WG where meeting notes and recordings would be archived: https://community.icann.org/display/TUA/UA-Measurement+WG

It was also raised that the definition of UA readiness will be developed collectively by all the WGs. Measurement WG will take the lead, and EAI WG and Technology WG will give input in their respective spheres. There was a suggestion from Technology WG to start a common document.

Action items

No.	Action Item	Owner
1	Continue discussing scoping of UA readiness of programing languages project based discussion on the call.	All
2	Provide input to the UA-Readiness matrix for browsers https://docs.google.com/document/d/1-mRhBNetSKkQ3dc_ivQRU0YsrbBVkir9eB1nWwM0rSk/edit?pli=1 for the next call	All