



Universal Acceptance

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Notes

## UASG Workshop and other events @ ICANN63

2018-11-01

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Universal Acceptance Steering Group

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Topic	Notes
Introduction	<p>In less than four years from its inception, the UASG is nearing the end of the beginning. Pursuit of Universal Acceptance (and EAI) has always been seen as a long-term initiative – similar to DNSSEC and IPv6 adoption.</p> <p>Both UA and EAI have arisen because of changes in the core internet specifications from the IETF that allowed the support of non-ASCII character sets in domain names and email addresses. The creation of additional TLDs (since 2001) with longer lengths than original legacy TLDs wasn't a change in standards but instead an exercise of existing standards and a significant deviation from traditional norms.</p> <p>The solution requires software developers to bring their applications up to standards. It is not a solution that can be achieved by a small number of actors – though the UASG is working with major software providers to encourage them to get their core systems UA and EAI Ready. Instead, every application that uses a domain name or an email address must be reviewed. And there are many such applications.</p> <p>The UASG has produced good quality documentation aimed at various knowledge levels – from the non-technical C*Suite to the very code focused geeks.</p> <p>While there is more work to do in the documentation and studies, the UASG is now turning to reconsider who its audience might be and how we are getting the message out. We have been focusing on the software community directly – Developers, Systems Architects and CIOs with some smaller focus on those who influence them. We'll start working on expanding the 'influencer' and 'director' audiences.</p>

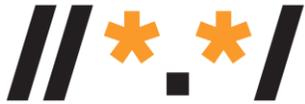


Topic	Notes
Documentation	<ul style="list-style-type: none"><li>• We noted the extensive documents that the UASG has produced since its inception. See <a href="https://uasg.tech/wp-content/uploads/2018/10/UASG-000-Inventory-of-Material.pdf">https://uasg.tech/wp-content/uploads/2018/10/UASG-000-Inventory-of-Material.pdf</a> for an inventory of published materials.</li><li>• The meeting asked that two more documents be added to the list:<ul style="list-style-type: none"><li>○ A <b>quick guide on variants</b>, with a particular focus on EAI mailbox administrators and how they might/should configure their mailboxes to preclude confusion and foster delivery as users expected. This will reduce the risk security issues from confusing mailbox names. The LGR rules could form a basis for the recommendations.<ul style="list-style-type: none"><li>▪ <i>The ICANN IDN project has existing material that can be used for background information that covers the concept of variants.</i></li><li>▪ This is a subject of current interest in the IETF and the SSAC as homographic attacks are a concern.</li><li>▪ Don is working with Sarmad to create an initial draft and structure for discussion. <b>ACTION: Don to advance this work.</b></li></ul></li><li>○ A quick guide to dealing with Right-to-Left scripts generally and Arabic specifically. Raed Alfayez has been working through the TF-AIDN and has developed a clear explanation of the confusable nature of mixing Arabic and ASCII scripts in domain names and email addresses. In that document there's an explicit recommendation that, at least within Arabic Script uses, mixing of scripts in a label, a domain name, mailbox name and indeed an email address, should be avoided. <b>ACTION: Don to circulate latest version of this document to UA-Discuss for comments. Upon production of an agreed version of the document, the UASG will format and publish this document.</b></li></ul></li><li>• We noted that the UASG has already started a review of documentation published more than a year ago. Some can be addressed directly by the community and others require subject matter experts. A review of UAG005 &amp; UASG007 is currently underway by subject matter experts. <b>ACTION: Don to publish a schedule for documentation reviews through the end of June 2019. A review of UASG004 (Use Cases) should be early in the schedule</b></li></ul>

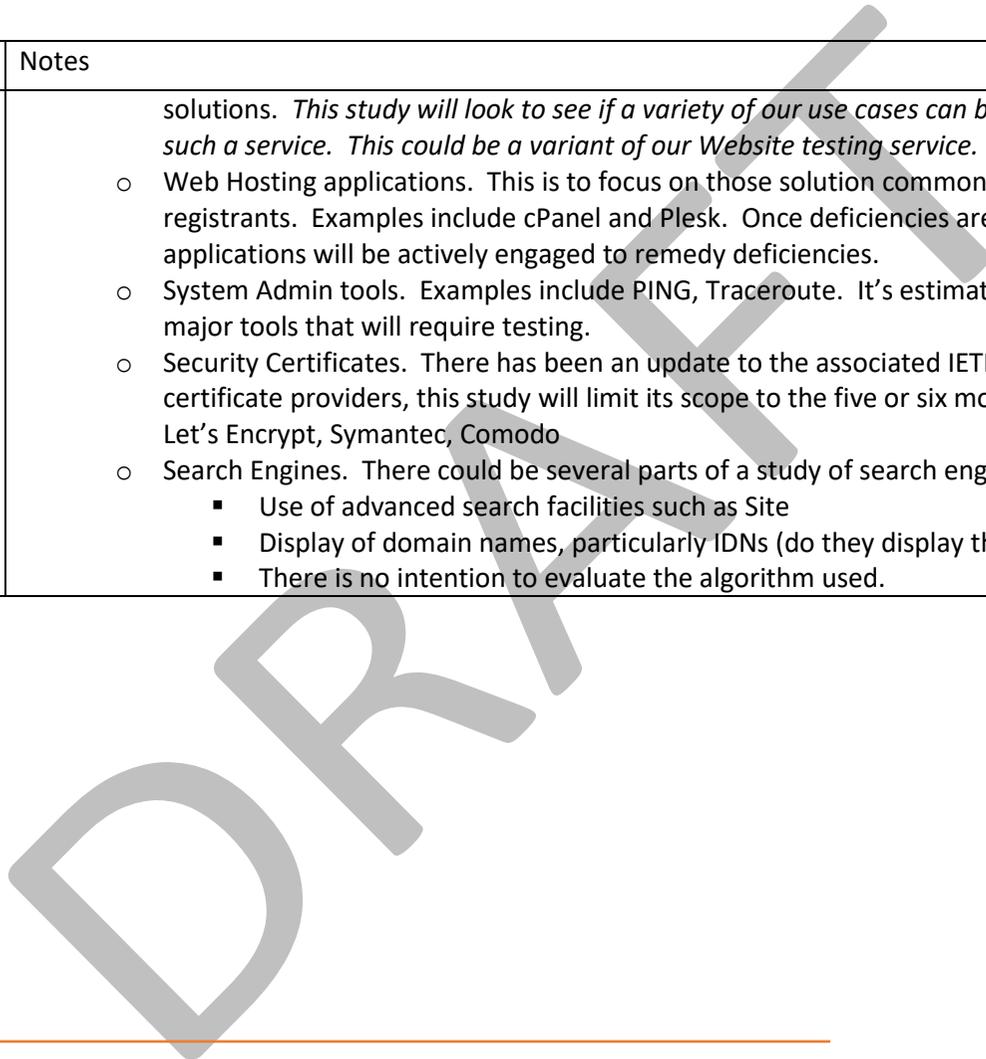


## Studies

- The UASG has performed a number of studies.
  - A review of the UA Readiness of Browsers. <https://uasg.tech/wp-content/uploads/2017/09/UASG-Report-UASG016.pdf> the meeting felt there was no need to review this document.
  - A White Paper looking at the Social, Cultural & Economic benefits of UA. There was no suggestion that this study be repeated. <https://uasg.tech/whitepaper/>
  - A study of the acceptance of a variety of email addresses by the 1,000 most popular websites. <https://uasg.tech/wp-content/uploads/2017/09/UASG-Report-UASG017.pdf>
    - **ACTION: Don to issue a Help Wanted ad to repeat the exercise.**
    - The group felt that outreach to webmasters of non-compliant sites be made. **ACTION: Don to prepare discussion paper on how Outreach can be achieved with an option of outsourcing the task.**
  - A review of consistency of treatment of domain names and email addresses with respect to the creation of links in social media applications. The testing work for this was done earlier in the year, but we've asked for a revision of the analysis to focus on consistency of creating links across different email address characteristics. The earlier analysis focus on linkification efforts which resulted in applications that didn't create links for any email addresses received a poor score.
- The UASG is currently performing a study looking at the EAI Readiness of email software and service providers. Phase 2 of this work, performing a pilot study, is currently out for bid. Phase 3 evaluating many email software and service providers will begin in the 1<sup>st</sup> quarter of 2019.
- The workshop asked that additional studies be performed. This is based, in part, on the evaluations that SaudiNic performed first in 2007 and subsequently in 2011 and 2014.
  - CRM Systems – Customer Relationship Management software. E.g. Salesforce.com, MSFT Dynamics
  - CMSs– Content Management System. E.g. Wordpress, Django, Drupal, Joomla, TYPO3
  - E-Commerce Systems (perhaps a subset of content management systems). E.g. Shopify, Magneto, Square
  - Operating Systems – The workshop agreed this was NOT an area needing structured evaluation
  - Office Systems. Rather than looking at specifically at linkification within a word processing application, instead the study should look at subscription office solution, cloud sharing, and real-time collaboration



Topic	Notes
	<p>solutions. <i>This study will look to see if a variety of our use cases can be used to subscribe or participate in such a service. This could be a variant of our Website testing service.</i></p> <ul style="list-style-type: none"><li>○ Web Hosting applications. This is to focus on those solution commonly used by Hosting providers to support registrants. Examples include cPanel and Plesk. Once deficiencies are identified the providers of these applications will be actively engaged to remedy deficiencies.</li><li>○ System Admin tools. Examples include PING, Traceroute. It's estimated that there will be no more than 20 major tools that will require testing.</li><li>○ Security Certificates. There has been an update to the associated IETF standards. While there are many certificate providers, this study will limit its scope to the five or six most commonly used. Examples include Let's Encrypt, Symantec, Comodo</li><li>○ Search Engines. There could be several parts of a study of search engines:<ul style="list-style-type: none"><li>▪ Use of advanced search facilities such as Site</li><li>▪ Display of domain names, particularly IDNs (do they display the A label or the U label)</li><li>▪ There is no intention to evaluate the algorithm used.</li></ul></li></ul>





Topic	Notes
<p>Accreditation, certificate of compliance, testing results</p>	<p>There were several discussions on whether the UASG should provide some certificate of UA readiness. This has been a discussion that UASG has had before and it was always deferred.</p> <p>Opportunities raised included market advantage for early adopters.</p> <p>Concerns raised included the cost, structure, and specifications, unrealistic expectations of what certification offers, as well as potential liability.</p> <p>The group felt that the understanding of the term Universal Acceptance Ready and EAI Ready are well enough understood to think about the topic in more detail. ICANN has had experience during the new gTLD process in certifying compliance and these experiences should be taken into consideration. <b>ACTION: Don to start work on discussion paper.</b></p>

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## Community Outreach

Christian and Lars presented on community outreach activities since ICANN61.

- The community asked for better metrics from the outreach efforts, particularly with Analysts. Are the briefings generating recommendations in the analyst's briefings to their customers.
- **ACTION: Don to (re)publish the results of the LinkedIn paid campaign.**
- EAI Day. At this point, we have been unable to find someone within Gmail willing to participate in the EAI day media release. (The EAI Day plans had been the collective release of a single media statement from EAI ready email providers.) Without the active inclusion of Gmail in the event there was no desire to actively pursue it. *We will continue to work to get Gmails active participation. In the meantime, we may use the results for the Email Software and Service study – phase 3 – to highlight the results.*
- Technical Marketing: We announced that a contract with .Asia has been signed to perform technical marketing outreach for the UASG. They have developed a CRM system and will start outreach in the following areas;
  - Identifying and reaching out to professional associations to get the UA messages published. **ACTION: Solicitations and introductions from UASG participants are sought for professional and community associations to which they belong.**
  - Reaching out to senior IT executives in Government departments
- Non-Technical Marketing.
  - The UASG is looking at an exercise to identify early or potentially early adopters of Universal Acceptance. What were/are their criteria for pursuing UA Readiness? While continue to pursue our existing strategy, we'll start developing the following:
    - Who is receptive to the UA Message? What are their characteristics? Who can be cheerleaders in their respective industries? What are the characteristics of these people and organisations?
    - Creating a target profile
    - Create (and test) messaging that will resonate with this target profile
    - Deliver the messaging
    - Measure results
- North Star Message



Topic	Notes
	<ul style="list-style-type: none"><li>○ The workshop felt that the existing North Star message remains valid</li><li>○ Messaging should focus on the ‘What’s in it for me?’ questions</li><li>● IT Executives in Governments<ul style="list-style-type: none"><li>○ The workshop agreed that this should continue to be a specific audience segment</li><li>○ Noted that many Government IT Executives are purchasers of systems.</li><li>○ Some effort should be addressed to the Systems Integrators who provide solutions to Government IT Operations.</li><li>○ Continue to work to get UA issues into Government Procurement process. If UA is not a requirement, then at least ask for a vendor’s UA Roadmap.</li><li>○ Leveraging GAC members to reach Government IT Executives is not, generally, expected to be a reliable approach – though they should be pursued where there is likely opportunities.</li></ul></li></ul>

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Topic	Notes
Hackathons and Code Sprints	<p>The idea of having a Hackathon, perhaps in association with an ICANN meeting, was raised again.</p> <p>There needs to be several people with the passion and skills to supervise such an event. We're not convinced we currently have them active in the community, though we could contract for such.</p> <p>Traditional ICANN meeting participants are not usually coders.</p> <p>The IETF runs Hackathons, and there could be interest there, but that again will require someone to drive it. The IETF also runs a Code Sprint exercise to enhance software used internally within the IETF. <b>ACTION: John Levine to look into opportunities at the forthcoming IETF meeting in Bangkok.</b></p> <p><b>ACTION: Don to share the idea with the UASG Discuss list to determine if there's enough interest and skills.</b></p>

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Open Source  
Programming Language  
Library Remediation

Marc Blanchet and John Levine talked about their respective efforts to make Open Source Programming language libraries UA & EAI Ready. **ACTION: Don to publish Marc's slides.**

Marc talked about their review of UASG018 and their creation of a set of Test Cases. **ACTION: Don to circulate revised UASG018 for community discussion as part of the documentation review.**

The exercise of taking a specific library and wrapping a testing framework around it and the Use Cases was fairly straight forward. Once the tests were run then the evaluation was performed. There were generally two broad types of results.

- Either the tests results were generally good but there were a few errors generated and code applied to fix them and Pull Requests were generated with the Library Maintainer to incorporate into their core module.
- Or the test results would require so much effort it was decided not to proceed. In these cases, the library evaluated were based on IDNA2003 specifications.

The workshop felt that getting commonly used programming language libraries remained a useful exercise and worth pursuing.

The workshop also talked about getting commonly used applications and utilities UA & EAI Ready and, again, there was support for this to happen.

Structures for getting commonly used programming languages libraries and utilities UA & EAI Ready could be:

- **Contracting.** This is the approach that the UASG has been using. Contractors work with the UASG to identify library modules to evaluate (to make sure there's no duplication) and they perform the work.
- **Bug Bounty.** We've been looking at this and someone to run this since the Coordination Group meeting in Seattle in early 2017. There are concerns with the ICANN Contracting process and the amount of overhead and time that this will require for a relatively low value transaction (Expected bounty of US\$1,000) **ACTION: Don to engage with ICANN administration to see if there are ways to simplify and expedite payment of Bug Bounties.**

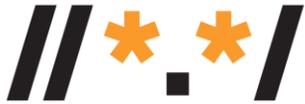


Topic	Notes
	<ul style="list-style-type: none"><li data-bbox="593 399 2036 539">• <b>Remediation Fund.</b> We talked about creating a fund where individuals and organisations could apply for funding to help facilitate the remediation of very popular software. The workshop expressed scepticism about the potential for abuse but wanted to see more details of what this might look like. <b>ACTION: Don to prepare a discussion paper on the operation of a Remediation Fund and the pros and cons of this and other funding allocation models.</b></li><li data-bbox="593 542 2036 644">• The workshop also suggested that we publish a list of relevant libraries with an indication of whether we think they are UA Ready – either as they are or pending acceptance of a pull request. Perhaps something along the lines of <a href="https://viagenie.ca/ua/">https://viagenie.ca/ua/</a> <b>ACTION: Don to create space on uasg.tech for such a list and process for its maintenance.</b></li></ul>

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Topic	Notes
EAI	<ul style="list-style-type: none"><li>• EAI Evaluation Study:<ul style="list-style-type: none"><li>○ Phase 1 complete</li><li>○ Help Wanted for Phase 2 (Pilot of the evaluation) closes 19<sup>th</sup> There have been several responses.</li></ul></li><li>• EAI in the market place<ul style="list-style-type: none"><li>○ There are a growing number of email software and service providers who support Phase 1 of EAI – <b>Sending To and Receiving From</b> EAI Addresses. Far fewer can (or do) host Unicode in the mailbox.</li><li>○ The Evaluation study will provide a clearer view of the state of the email software and service sectors.</li></ul></li><li>• EAI Day – See previous discussions during Community Outreach</li><li>• EAI &amp; IDN ccTLDs. Don reported that some IDN ccTLDs (.cn, .in, .sa, .th, .tw) have partnered with (or have) local software houses to provide EAI Ready mail services. There are reports that such a facilities improve IDN ccTLD registration renewal rates, the numbers are still quite low. Discussions with ccTLDs at APTLD74 suggested that local government needs to create an initiative before IDNs (and EAI) will take off. Only in India is there an indication that some government agencies are actively pursuing IDN and EAI.</li><li>• EAI in the IETF. The latest IMAP update drafts call for required inclusion of EAI in deployments. In the past it had been optional.</li><li>• Variants in Mailbox names. See notes above in documentation. The UASG will prepare a Good Practice Guide for managers of mailboxes on configuration of non-ASCII characters in mailbox naming and mapping variants.</li><li>• Arabic Script: See notes above in documentation. The Arabic script guide urges consistency of script across all labels in a domain name and the mailbox and domain name in email addresses.</li></ul>



## UASG & Others

This discussion centred on who the UASG should partner with to achieve higher awareness – and action – in our target audiences. Suggestions include:

- ICANN generally and the GSE team specifically. ICANN Senior Executives and Board members should be encouraged to raise the topic when speaking. Indeed, ICANN Board members are encouraged to get their own organisations UA Ready. This is an ongoing exercise and pilots have been started in each ICANN region.
- Internet Trade associations: ECO, I2, TheDNA, Cabase, IAMAI – all are already engaged. **ACTION: Members of the UASG are asked to advise Don of any other Internet Industry trade or professional associations.** *The UASG has been in touch with various ICANN Constituencies in the past as well as the Brand Registries Group and the geoTLD group.*
- Standards Bodies
  - IETF – We keep track of relevant activities in the IETF.
  - W3C – We are in discussions on how to engage with the W3C to ensure that their relevant standards (e.g. email) are correct.
  - WhatWG – This is an alternative group of major browser developers. It's unclear what role the W3C still plays with browser developers.
  - Unicode Consortium – UASG members regularly introduce and update the Unicode community on activities of the UASG.
- ISOC
  - In the past ISOC Management weren't interested in being actively involved with Universal Acceptance.
  - There's a new CEO at ISOC who has, in the past, been actively involved in the UASG.
  - ISOC Chapters generally operate independently. The UASG would do well to contact ISOC chapters directly and work with ISOC's director of Chapter engagement.
- IGF
  - Local and regional IGFs are considered a more ripe audience for the UASG Message
  - The Global IGF has not provided much traction for UA issues in the past. However, there is interest in getting future IGFs to have better engagement with Business. There is also a Dynamic Coalition for DNS issues being formed and getting UA featured at the IGF is high on their agenda.



Topic	Notes
	<ul style="list-style-type: none"><li data-bbox="593 400 1933 464">• M3AAWG – The UASG has had some presence within the M3AAG community for nearly two years. Relevant sessions have been held at their two most recent meetings.</li><li data-bbox="593 472 2029 611">• Schools of Internet Governance. Not our immediate target audience of developers, but the workshop decided it would be useful to get UA and EAI included in their training programs. The UASG already has lecture slides and notes for both UA &amp; EAI that could be suitable. <b>ACTION: Don to work with .Asia and regional GSE teams to identify Schools of Internet Governance and encourage them to include UA &amp; EAI Material in their training program.</b></li></ul>

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Topic	Notes
Local Initiative	<p>Don provided a brief snapshot on what's happening in China, India, Thailand, Taiwan, Singapore, Brazil and Egypt.</p> <p>Edmon reported that Malaysia is asking about translation of core UASG documents.</p> <p>The workshop asked how we could measure the effectiveness of local initiatives. It's a combination of participation numbers and the nature of the participants. Reports from local initiatives should include names and contact details (and permission to contact) and roles and responsibilities.</p>
UA Ambassadors	<p>There was a quick review of the UA Ambassador program.</p> <p>Abdalmonem talked about his efforts in Egypt where he is actively engaging with Egyptian government IT departments (and training schools). He has provided several training programs and later this year run a five-day workshop. <b>ACTION: Don to publish Abdalmonem's slides.</b> Abdalmonem leveraged his previous relationship with the Ministry of Communications to get the ball rolling. His training slides make extensive use of our existing documentation. Abdalmonem noted it's important to provide local training in local language.</p> <p>John talked about his participation in two security conferences earlier this year where he adapted the slide deck on EAI.</p> <p>Dusan, who has been involved in many events, noted that you must assess the audience before deciding what to share. Some may not even be familiar with the Internet eco systems and may never have heard of ICANN or new gTLDs.</p> <p><b>ACTION: Don to prepare an annual report on the Ambassador program.</b></p>



Topic	Notes
Measurement & Monitoring	<p>There were several discussions on measuring input, output and results from UASG initiatives.</p> <p><i>Early in the UASG initiation we had a Coordination Group that was to focus on Measurement and Monitoring. It was not active and has been dropped. The UASG could consider reforming such a group if we can find some leader with time, energy and expertise.</i></p>
Other Notes that came up during discussions	<ul style="list-style-type: none"><li>• There is current work in the IETF to synchronise IDNA2008 and the latest version of Unicode.</li><li>• There are issues around label separators in different keyboard settings. In the IDNA2003 specification there was an explicit requirement to convert an Open Dot to an ASCII dot. The meeting reported that there were a number of scripts and keyboard that don't inherently include an ASCII dot. This requires a user to switch keyboards when entering a domain name or email address. The meeting also heard similar issues around the '@' character.</li></ul>
Items not Covered	<p>The meeting ran out of time. Here are some other things to consider:</p> <ul style="list-style-type: none"><li>• The UASG Chair and Vice-Chairs are elected every two years and the roles are term limited. There will be an election in 2019 right around the time of the ICANN Kobe meeting.</li><li>• The UASG Structure. This is worth reviewing from time to time. Currently the UASG is an unincorporated community interest group that is strongly supported by ICANN. Dedicated resources have always been small but have recently been enlarged with a part-time secretariat and Technical Marketing services.</li><li>• All funding for activities has come from ICANN. Members of the community, including the Chair, Vice-Chairs and Coordination Group leaders have contributed their time as volunteers – either as individuals or with the support of their employers. We also contract for some specific tasks. Is this still the right model?</li></ul>



Topic	Notes
Refreshing UASG Strategies	<p>During a separate working session of the Community Outreach working group, the following were proposed:</p> <ul style="list-style-type: none"><li>• Vision: The all domain names and all email addresses work in all applications</li><li>• Mission: To mobilise application developers and systems architects to get their applications UA Ready</li><li>• Goals:<ul style="list-style-type: none"><li>○ <b>Awareness</b> Raising to our target audience</li><li>○ Providing <b>Tools</b> for developers to address their applications</li><li>○ <b>Measure</b> progress</li></ul></li><li>• Audiences:<ul style="list-style-type: none"><li>○ Doers – Application Developers and Systems Architects</li><li>○ Influencers – those who can influence application developers to get their systems UA Ready (We have removed CIOs as a separate target audience. They will become part of the influencer group.)</li></ul></li><li>• Messages were not reviewed</li><li>•</li></ul>

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## Actions

- Don to advance the creation of a Quick Guide to Variants with particular focus on variants in mailbox names
- Don to circulate latest version of the document on Right-to-Left scripts to UA-Discuss for comments. Upon production of an agreed version of the document, the UASG will format and publish this document.
- Don to publish a schedule for documentation reviews through the end of June 2019. A review of UASG004 (Use Cases) should be early in the schedule
- Don to issue a Help Wanted ad to repeat the exercise of looking at the top 1000 websites
- Don to prepare discussion paper on how Outreach can be achieved with an option of outsourcing the task.
- Don to start work on discussion paper on UA Certification
- Don to (re)publish the results of the LinkedIn paid campaign.
- Solicitations and introductions from UASG participants are sought for professional and community associations to which they belong.
- John Levine to look into opportunities at the forthcoming IETF meeting in Bangkok.
- Don to share the idea with the UASG Discuss list to determine if there's enough interest and skills to manage a Hackathon
- Don to publish Marc's slides.
- Don to circulate revised UASG018 for community discussion as part of the documentation review.
- Don to engage with ICANN administration to see if there are ways to simplify and expedite payment of Bug Bounties.
- Don to prepare a discussion paper on the operation of a Remediation Fund and the pros and cons of this and other funding allocation models.
- Don to create space on uasg.tech for such a list of recommended (and not recommended) Open Source Programming Language Libraries and process for its maintenance.
- Members of the UASG are asked to advise Don of any other Internet Industry trade or professional associations
- Don to work with .Asia and regional GSE teams to identify Schools of Internet Governance and encourage them to include UA & EAI Material in their training program.
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