

UA Measurement WG Meeting

11 August 2022

Attendees

Nabil Benamar	Jim DeLaHunt
Andre Schappo	Joseph A. Abandoh
Hasrsha Wijayawardhana	Julien Bernard
Adolph Sedem Adu	Sarah Kiden
Afia Faith	Shreedeeep Rayamajhi
Carine L. Malor	Sushanta Sinha
Cengiz Acartürk	Sarmad Hussain
Gopal Tadepalli	Seda Akbulut
Georgia Osborn	

Meeting Agenda:

1. Welcome and Roll Call
2. UA Academia Outreach
Reviewing the [SOW on UA academic curriculum](#) with the advisory team
3. Continue discussion on impact of the use of HTML5 email field
4. AOB

Meeting Recording:

https://icann.zoom.us/rec/share/CEI5cXvjimjKTuF-y9Eio1jsKE7vX0t_8OvROV4ysccoRI8XrJI0ahQ0_N9u8H6l.1WjTCYYpRuIKwAU

Meeting Notes

In this call, as the majority of the participants are from academia and as it is the first academia meeting, the topic on HTML5 was not handled due to the lack of time and priority.

Academia Outreach and SOW on Academia

The link to the Statement of Work (SOW). Was shared with the participants to go through and suggest feedback. Nabil thanked everyone who joined the advisory team for building a UA curriculum and UA courses.

Andre mentioned that **Unicode** is not a specific subject in academia even though it is a huge topic that needs to be covered. Programmers, analysts, and the majority of computer science academics lack Unicode knowledge. Without understanding Unicode, it is not possible to get very far with IDNs and EAI. Second important topic that needs to be taught is **how to program in Unicode**. We have courses in programming in ASCII, but not in Unicode.

Nabil agreed to Andre that we should include them in the curriculum and blend into it.

Sarah mentioned that she is curious about why specific courses are included, and why subjects like business management or linguistics are not included.

Sarmad provided further clarification to set the stage for this first call. As per UASG's focus in academia, Measurement WG drafted this SOW on UA Curriculum, which is still a draft. While the WG is working on this topic, we decided that we need broader input from academics like you who have experience in UA. With the help of the advisory team of volunteers from the academics, the WG expects to complete the SOW. However, we also need to identify how much of the work should be done by Measurement WG, what parts should be done by the advisory team, and what part needs to be done by a contractor.

Another question Sarmad raised is whether this topic should be spinned off, or we should continue meeting at regular time for Measurement WG recurring meetings.

Nabil added that the SOW is just a draft that we can finalize together with the advisory team based on this group's input. He invited everyone to review and share their feedback about the SOW document.

Andre mentioned that he is involved in IDNs and EAI for many years. In an educational sense, he doesn't feel strong in having a separate course just for IDN and EAI. Instead, **IDN and EAI topics should be handled within the broader context of internationalization of computing and programming**.

Harsha mentioned that there are issues for Sinhala script. As recently this WG is talking about **IDNA2003 and IDNA2008**, these should be part of the topics as well **IDNs and EAI**. Then he clarified that the discussion is not on the SOW but on the email thread Jim initiated about UASG037 report on okhttp.

Sarmad identified the main scope of the UA Curriculum work which is found under the Description section at the 2nd,3rd, and the 4th bullets. In fact Andre's suggestion is already covered under 2b. Sarmad asked everyone to review number 2, and add what is missing:

2. Develop separate outlines of course modules to be covered by the different IT courses taught at the university, e.g. programming courses, networking courses, etc. The modules should include at least the following:
 - a. Impact of supporting all domain names and email addresses, including internationalized domain names and internationalized email addresses.
 - b. Introduction to **internationalization with the Unicode** standard and its input, processing and output methods.
 - c. Introduction to domain names and internationalized domain names. Validating and processing internationalized domain names and internationalized email addresses in Unicode format.
 - d. Components of email servers and their configuration to support internationalized email addresses.

Andre encouraged his colleagues to enhance the existing modules, such as databases. For instance, modules like how to incorporate Unicode searching, Unicode matching and so on. It doesn't involve too big change in academic curricula.

Harsha mentioned that in Sri Lanka they do teach how to program in Unicode and for Unicode for databases. Programming in Unicode and database side have been partly included in their curricula.

Andre mentioned that UA, IDN and EAI added **networking** is planting a seed. To get the ball rolling and get the process started let's get academics and students to think about this whole issue of internationalization.

Sarmad commented that this is a good discussion that lead us to number #3 under the Description. Networking courses can have networking tools that have IDNs, topics like how to store IDNs and EAI in databases, in web programming including HTML5. What modules like these we can list to design the curriculum, under no.3?:

3. Identify the courses in which each of the modules should be integrated in the core Computer Science and IT undergraduate curricula.

Sarmad also highlighted that **not just what modules we want to teach but also how we organize them as prerequisites and then how we integrate them into the different courses which are being offered are amongst the things we should identify here in the SOW.**

Nabil mentioned that when we talk about networking courses, we are mainly referring to **how we can set up network services so that they are UA ready.** There are a lot of you network services, we can talk about DNS, DNS server, and when we talk about services, we should keep in mind that we are referring to **both the client and the server**, how we need to set up the client and the server so that they can communicate together in UA ready mode.

How can we use the command line to ask a DNS server about any information stored in the DNS server, about any record, whether it is an MX record, etc. How should we set up the DNS server so that it can reply and answer those requests?

Also same for the email server or the email service; we need to set up the client and the server.

Majority of students and faculty are not aware of the existence of these concepts. We have some statistics showing which software is UA-ready which is not. Unfortunately, the majority of software related to emails are still not ready for this. Therefore, UA is something that we need to have in the curriculum.

Sarmad asked how to move forward. Then suggested adding bullets and sub bullets under the Description item no:2. We can take this as homework and then next time we consolidate all the information. We can start with 2. Once it is finished, then continue with 3 to modularize courses. Harsha agreed to it.

Sarmad added normalization and UTF8 to 2.i.

Joseph asked for clarification about whether we are **looking at introducing elements, modules, topics in different courses or in different IT programs, or are we looking at introducing the course for being integrated in the curriculum.**

Sarmad responded that this is about creating new modules and then integrating them in the existing courses. so both sides are covered.

Gopal suggested the followings in the chat:

- Can we have an idea about the number of lectures budgeted for each topic? One lecture hour is 50 minutes.
- Personal Experience: UG and PG Level "User Interface Design" [not more than 3 lecture hours i.e one week. "Mobile Application Development" - not yet taught but worked on Android.
- Let us have two types of streams. #1: Programming [Systems & Application] Stream #2: User Interface Stream. The 1,2,3,4 will have different ways of teaching for these streams.

Jim suggested going around the participants for self-introduction. Nabil appreciated it.

Brief introduction of the Advisory Team:

Andre: Academic university teacher. His major is computer science, internationalization and localization.

Adolf: From Ghana - ICANN Fellow - Teaching Information Systems in university.

Afia: Doing master's degree in data analysis.

Cengiz: From Turkey, but now lives in Poland. Faculty member until 2022 in Middle East and Technical University in informatics Institute where he taught courses on information systems, cyber-security, artificial intelligence, and visual cognition to in the cognitive science and cyber security programs. His current major in Poland is visual cognition and cognitive science.

Gopal: From India - Professor in the department of computer science, engineering at University Chennai.

Carine: From Ghana - Statistician and project manager.

Jim: From Canada - Software engineer.

Harsha: CEO and CTO of a university company, involved in academia, taught programming, network side and database. Also involved in Unicode research, worked with ccTLD IDNs, chair of a local language working group of Sri Lanka.

Joseph: From Ghana - Lecturer at **Faculty of science** - in software engineering, researcher, making additional curriculum to reflect what is currently happening in the industry, doing research to prevent DDOS attacks on software defined networks.

Julien: From Canada (French), IT Consultant and software developer, working mainly on networking.

Nabil: University professor in computer science, chair of Measurement WG, chair of IDN Arabic script.

Sarah: Her major is systems engineering, teaching network design, engineering, and system design research.

Shreedeeep: From Nepal - General Secretary of an Asia Pacific school of Internet Governance. Specialized in communication, outreach and capacity building for youth.

Sushanta: From India - UA Ambassador, IT consultant.

Sarmad: Sr. Director of IDN&UA Program at ICANN.

Seda: UA Program manager at ICANN.

Next meeting: Thursday 25 August 2022 UTC 1600-1700

Action items

No.	Action Item	Owner
1	Provide your input under the Description 2# Bullet in the SOW	Measurement WG
2	Cast your vote for the academia meeting (at regular time, or in a separate call)	Measurement WG