Dear ICANN,

First of all, I would like to thank ICANN for initiating this project (the IDN Variant Issues Project) and also for giving the community the opportunity to comment on the produced integrated report.

I heavily participated in "The IDN Variant Issues Project – Arabic Script Case Study" and I was a member of the Case Study's team who identified a number of issues that were specific to the Arabic script. I significantly participated and assisted in drafting the final report of the Arabic Script Case Study (<http://www.icann.org/en/topics/new-gtlds/arabic-vip-issues-report-07oct11-en.pdf>).

I feel that the integrated issue report has not adequately addressed the problem of allowing ZWNJ in TLDs and it only provides a reference to the Arabic Script Case Study report, which is insufficient. Allowing ZWNJ in TLDs, in my humble opinion, is a very serious problem and threat to our users (you can sense that by looking to the feedback on the Case Study report where most of the comments were from the Arabic specking countries with concerns regarding allowing ZWNJ in TLDs). Hence, the reader of the integrated issue report may not get the alert and will not be aware of the security, stability, and usability problems caused by the use of an invisible control character, i.e., ZWNJ

I fully understand the need of ZWNJ by some language communities and hence the team recommendation was:

       " *the team recommends that the ZWNJ issue should*

*be further investigated through a comprehensive*

*study."*

Which means that it **should be carefully investigated before allowing ZWNJ in TLDs**.

The Arabic Script Case Study report listed the arguments that are in favor and against allowing ZWNJ for TLDs. It is very important that the reader of the integrated issue report sees and reads these arguments particularly the one against allowing ZWNJ in TLDs as these arguments advocate that ZWNJ causes some security, stability, usability, and reachability problems, and  hence mistrust of IDNs.

Here are some of the arguments that the Arabic Script Case Study report outlined against allowing ZWNJ (page 7 of: <http://www.icann.org/en/topics/new-gtlds/arabic-vip-issues-report-07oct11-en.pdf>):

b. Arguments against allowing ZWNJ for TLDs

i) Labels need not capture linguistic conventions and may be treated as a string instead of a linguistic word, which undermines word-based arguments.

ii) At Script level, the ZWNJ is considered by UNICODE to be an invisible join control character and listed in the "Unicode Security Considerations" document, which warns that incorrect usage can expose programs or systems to possible security attacks. This is especially relevant for IDNs.

iii) The ZWNJ in a few cases is still not visible to all users (e.g., U+0637, U+0638, U+069F, U+06BE, and U+06FF). A comprehensive analysis of Unicode Arabic Script Code Charts is needed to find any additional cases. This process should be repeated as the Unicode gets updated.

iv) The ZWNJ concept and behavior are not known to many Arabic script users, who do not use it or know how to type it.

v) ZWNJ is not conveniently available on the keyboard, where typing it requires multiple simultaneous key-presses, which is complicated for users. ZWNJ is also inconsistently placed on keyboards across various operating systems.  In addition, it is not available on many keyboards, making it difficult for people to use ZWNJ when, for example, they travel.

vi) The users may not be able to type a domain name as they may think it is a <space> not ZWNJ, which may lead to reachability and usability problems, and therefore, mistrust of IDNs.

vii) Based on the ZWNJ Contextual Rule (RFC 5892 Appendix A.1) for handling CONTEXTJ labels under the current IDNA2008, the Rule implementation does not totally resolve the non-visibility problem particularly in some cases as discussed above (e.g., U+0637, U+0638,U+069F, U+06BE, and U+06FF).

viii) It is not one with the general category of {Ll, Lo, Lm, Mn}, as per the requirement defined by the gTLD Applicant Guidebook (v 2011-09-19,Module 2, page 2-13, Section 2.2.1.3.2, Part II, Item 2.1.3.).

ix) Root policy should be more conservative than labels for other levels.

x) Use of ZWNJ may cause additional bidirectional display issues.

xi) Hyphen can be used instead of ZWNJ to break a string into ligatures

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