



# IDN, Scope & Challenges

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Welcome  
to  
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# This tech-talk is about

- Overview and Scope of IDNs (Internationalized Domain Names)
- Challenges
- Solutions
  - Total number of slides are 12



# Need and Scope of IDNs

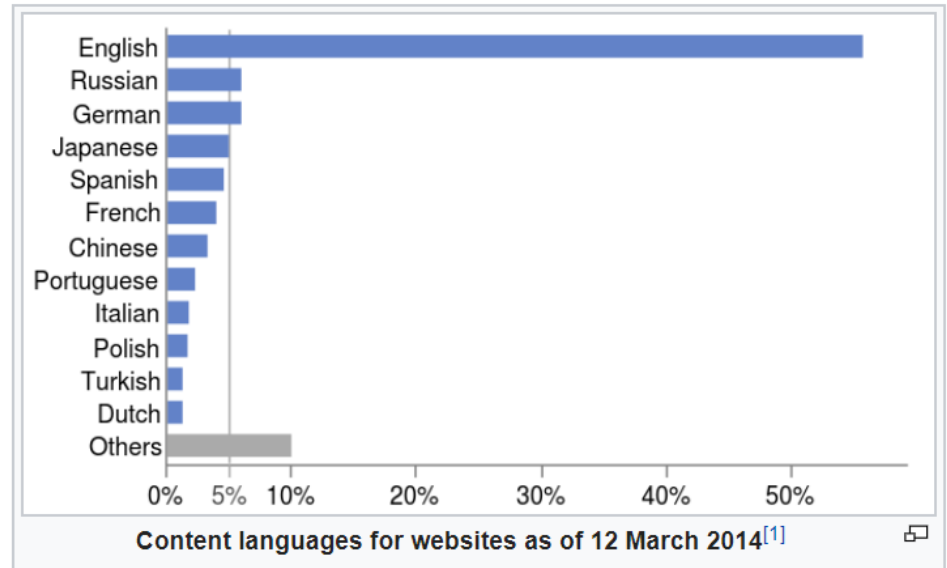
## English language Internet is declining

There is debate over the most-used languages on the Internet. A 2009 UNESCO report monitoring the languages of websites for 12 years, from 1996 to 2008, found a steady year-on-year decline in the percentage of webpages in English, from 75 percent in 1998 to 45 percent in 2005.

Source : [https://en.wikipedia.org/wiki/Languages\\_used\\_on\\_the\\_Internet](https://en.wikipedia.org/wiki/Languages_used_on_the_Internet)

## Huge demand of regional content :

As per ITU (International Telecommunication Union) Internet users are generally more comfortable reading or browsing through texts in their own language and that, for the Internet to become more widely available to a large number of users, it is necessary to make the domain name system available in non-Latin based scripts.



[https://www.itu.int/md/dologin\\_md.asp?id=S18-PP-C-0055!A3-L4!MSW-E](https://www.itu.int/md/dologin_md.asp?id=S18-PP-C-0055!A3-L4!MSW-E)

# Challenges

- Most of the popular websites don't recognize IDNs as valid email ID/Username.
- Many email exchanges reject IDN email IDs
- Few browsers don't redirect IDNs to proper websites effectively, sometime they re-direct to puny code **xn--11b7ah1gn.xn--h2brj9c**, leading to confusion
- Searchbility issue with many search engines, though they are working hard to resolve this.
- Some Registrars don't support redirecting/forwarding IDN URLs. In some cases user have to enter Puny Code URL of IDN.
- Linkification issue in popular applications
- Phishing
- Spoofed URLs

# Examples

## IDN Domains

a) हिंदी.कॉम

b) हिंदी.कॉम

a) खाना.कॉम

b) रवाना.कॉम

a) मंदिर.कॉम

b) मन्दिर.कॉम

# Examples

## IDN Domains

- a) हिंदी.कॉम
- b) हिंदी.कॉम

- a) खाना.कॉम
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- a) मंदिर.कॉम
- b) मन्दिर.कॉम

## ASCII DOMAINS

- a) Apple.com
- b) Apple.com

- a) Orange.com
- b) 0range.com

- a) Google.com
- b) Google.com

- a) Wilson.com
- b) VWilson.com



# Solution

- Standardization of methods and processes which is already taken care by UASG (Universal Acceptance Steering Group). **www.UASG.TECH**
- Awareness is the key
- More compatible web browsers and applications
- Support from registries and registrar to follow UASG guidelines
- Tech-giants are already working on IDN Indexing and Searchability issue.
- Accept, Validate, Store, Process, and Display Unicode Data.

# Multi-stakeholder support is needed

**Registries** need to provision, resolve and manage IDNs and raise end user awareness

**Registrars** distribute domain names, raise end user awareness in their region

**Content publishers** should create content in native language to consume and raise end user awareness

**Application developers** should create universally acceptable applications to support IDNs

**Governments** should provide internet infrastructure, standards and policies to support IDNs

We should not forget

It's always  
about the  
**End-User**



# Thank you



## Q&A

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