How can the IRTF help academia (and vice versa)?

Marie-José Montpetit
With thanks to the COIN community and Lars Eggert
IRTF Open
IETF106 - November 18 2019
Why this discussion?

• Some comments at the COIN interim meeting
  • Academics do not do drafts
  • Attendance from professors and students difficult
  • We need to do a better job of connecting academia and IRTF

• Other inputs:
  • There is more than drafts
  • The typical draft format is ill suited for research discussions
Top concerns from the COIN community

• Drafts (and standardization) work poorly considered in academic circles
• Need for more dissemination of RG activities
• Travel/participation aspects
It’s not just drafts but then drafts have a use

• Writing drafts is not necessary to participate in a RG meeting:
  • Academic presentations welcome
  • ANRW and ANRP are examples of research being presented in IRTF meeting
  • Grad students and post docs welcome

• IRTF draft perception in the academic world is uneven at best
  • Yet a draft goes through a thorough review before going to RFC and has often more scrutiny that most published papers
  • But the mindset is hard to change —some ideas
    • Clearly state the research challenges in Wikis and Github
    • Invite participation in RGs and I-Ds from leading academics (not just wait for volunteers)
    • Co-locate interim meetings during leading conferences in the field and organize workshops and tutorials (like Lars did in 2012 in Brazil) on RG activities
    • See : Bridging the Gap between Internet Standardization and Networking Research (http://www.sigcomm.org/sites/default/files/ccr/papers/2014/January/2567561-2567572.pdf)

• Other ideas for dissemination:
  • Create and then share specific use case and data on github/wiki to create leverage
  • Add RG topics in academic seminars and presentations
  • Enable I-Ds to evolve from RG documents into Vision or Blue Sky paper at conferences and workshops; deliberately foster this path (early reviews for free)
Travel and attendance costs

• Budgets for attending IETF/IRTF are limited or non-existent in academia
• Some ideas for solutions (some already implemented):
  • Remote attendance (time difference issues)
  • Do a better job at advertising reduced fees at local venues for academics and students
  • Use the Hackaton to gain interest from students who have specific projects
  • Co-locate interim meetings during leading conferences in the field when the researchers are already there
  • Apply to the NSF - and its equivalent in other geos – to fund new programs
    • Create a Travel Grant program targeting academics (professors and students) to attend
    • Create a competitive Internship program that pairs University researchers with IETF/IRTF participants
• Other funding ideas
  • A small tax on registration or remote participation ($5)
  • Seek sponsorship from some of our biggest IETF/IRTF industry partners
Why co-locating IRTF and IETF? Win-Win

Researchers in IRTF

• Learn about the real problems
• Work on meaningful open issues – help build the Internet
• Understand what promotes and hinders deployment
• Meet potential collaborators and funding sources
• Have a realistic understanding of time commitments

IETF Implementer Community

• Gains highly skilled, less-biased experts
• Use academic results to create better standards
• Enable researchers to directly improve the Internet
• Insight into trends that will impact standards down the road
• Accompany relevant topics in the IRTF research arm
Conclusion

• We can obviously do better

• ISG inputs/discussion?

marie@mjmontpetit.com