What new technical work should the IETF take on?

- And, how can the IAB help?
- What potential workshop topics are there?
- What is their status?

IAB Retreat, April 2021
Big Internet Issues

From IAB survey

• Surveillance capitalism and encryption/privacy: centralization, threatening underlying trust in the network

• Security: data privacy, deployable solutions, identity for e2e encryption

• Nationalism and fragmentation: non-IETF proposals to rearchitect, regulated out of existence

• Others: resilience, observability, network support for applications, simplicity, ICANN root governance system, private spaces within protocols

• How to work: gap & trend analysis, collaboration with open source community, action plans for dealing with non-IETF Internet efforts
Big Internet Issues
From IESG PEST

• Political — geopolitics, fragmentation interests, attitudes to data collection, crypto legislation, anti-trust efforts

• Economic — incentives or lack thereof for standards among big players, economies of scale, centralisation, consolidation, increasing fibre & wireless investments, use in critical industries

• Social — worries about critical services or data, effects of social media amplification, fake news, isolated bubbles, threats to free speech, tensions between operators and “endpoints” (routers at a different layer?)

• Technological — are standards needed, moving up the stack, centralization, increasing attacks, availability/security/privacy/identity, AI, no plan for e2e QoS, how IP evolves
Big Internet Issues
An attempt at synthesis

Some initial notes:

• A lot has happened (progress!) but we’re not done…
• Data centres use too much power
• Data centres use too much data :-)
• Many unsolved security problems, still
• New needs on resilience, critical services, new tech
• Evolving ecosystem — stack changes, standards & open source, how implementations are built, choice wrt what is standard and what is on top
• Vision for which direction the internet moves to
Big Internet Issues
An attempt at synthesis

Early conclusions:

• We see technology affected by various interests, from conflicting business interests to regulatory issues and geopolitics

• The IETF is best at taking very concrete (late) steps; there’s also need to pay attention to the earlier parts and how Internet evolution affects other

  • Maybe room for IAB interaction with others, thinking about what kinds of solutions we want to go towards, understanding trends, etc.

  • We don’t necessarily understand all of this very well ourselves — perhaps a focus on listening more various other parties would be useful
How can the IAB help?

“Workshops [3], documents [4], IAB open [3], programs [1]”

(Does this mean: do not create organisations, engage the community or write something clever instead?)
Thoughts on Workshops

There’s different kinds of workshops

- For coming up with a plan/common agreement (ESCAPE)
- Brainstorming about a difficult topic (DEDR)
- Early exploration of emerging topics (IOTSI)
- For airing thoughts about a painful topic (MARNEW, ESCAPE)
- Getting participants to submit interesting submissions (COVID19)
- ...

The IAB doesn’t necessarily always have to have a clear technical plan and analysis document before organising a workshop (e.g., COVID19)

- Probably useful to do more/have early discussions/involvement, and avoid analysis paralysis…

Workshops can also fail, e.g., when the IAB doesn’t fully understand the situation or the participation is not broad enough (R&A)
Thoughts on Workshops

Workshops take time!

- Start now if you want one

Workshops take people who are driving them, writing things before and after, run PCs, figure dates, etc

- We need a stuckee (actually several) for any topic
- Plus some community counterparts, even early
Potential Workshop Topics

User-consumable network quality
- Waiting for an updated write per feedback?
- Responsible? Tommy?

Centralization/consolidation
- Community input
- Past events partially on this topic (DEDR)
- Status of documents
- Best way to approach/energize/cultivate discussion
- Responsible? Jari?
Potential Workshop Topics

Collaboration & path signals
  • Some interest in community
  • Opportunity for progress less clear
  • Let's see after next agenda item
  • Responsible?

Workshop on quantitative/qualitative analysis of IETF data
  • In preparation? Is this IETF or IAB or LLC?
  • Responsible?

What else?