

# After Authorization... Is It Still ICN?

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# ICN Majors on Authentication and Integrity

- All schemes offer authentic content
- Integrity is built-in
- But they must handle both immutable & dynamic content
- Can also be encrypted
  - But the key usually has to come out-of-band

# But what about Authorization?

- Major research challenge
- ICN architectures are good for open access, but,,
- Content owners lose control after publication
  - Content may be encrypted but not access controlled
- Proposals such as Fotiou et al [1] require token from publisher or authorized proxy...
  - Back to the current host-based model

[1] Access Control Enforcement Delegation for Information-Centric Networking Architectures

# Will publishers like this?

- May still have to issue access tokens per user
- And may *still* lose control once published
- No easy way to gather statistics about viewing
  - Bad for advertising revenue
- No obvious way to revoke access once published
  - How to publish updates?

# So... Would it be ICN,,,

- ... if authorization worked pretty much as it does at the moment?
  - requiring host-like access to the publisher?
- Or can you do it some other way?
  - Homomorphic encryption might help (eventually)
- Will publishers buy it without authorization/statistics/revocation?