

# System Administration

Week 05, Segment 5

Networking I: The Physical Internet

Department of Computer Science  
Stevens Institute of Technology

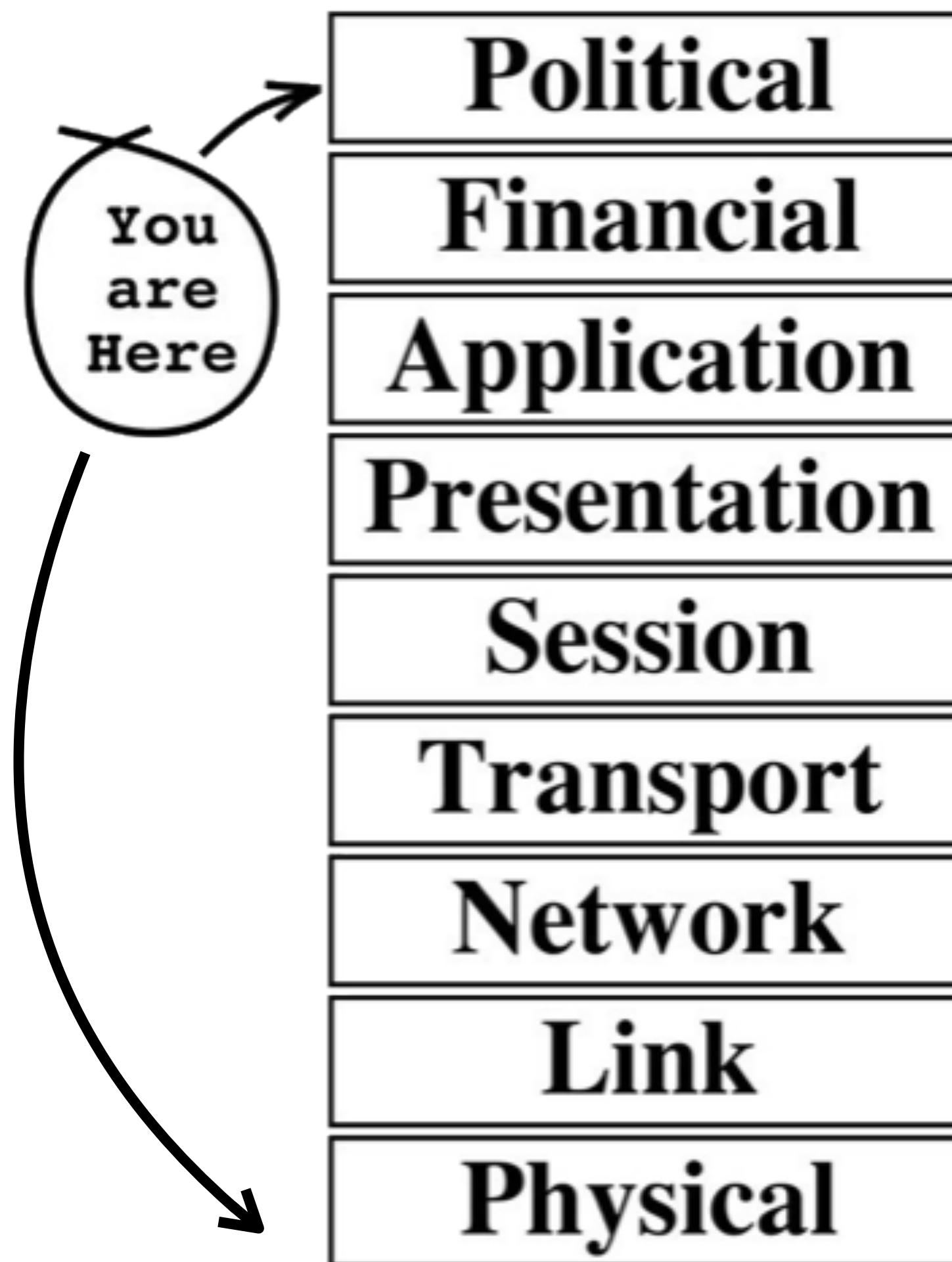
Jan Schaumann

[jschauma@stevens.edu](mailto:jschauma@stevens.edu)

<https://stevens.netmeister.org/615/>

# The physical internet

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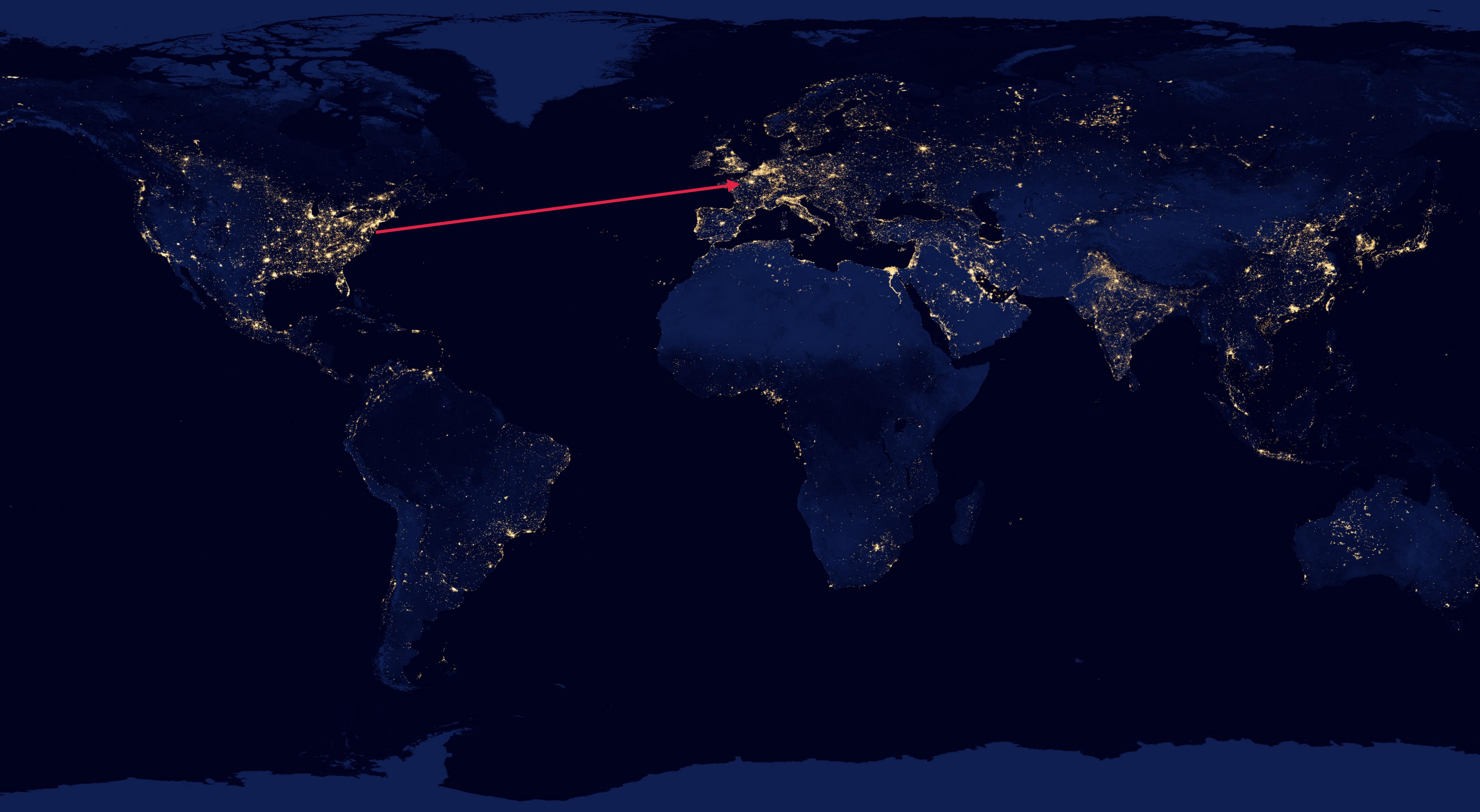


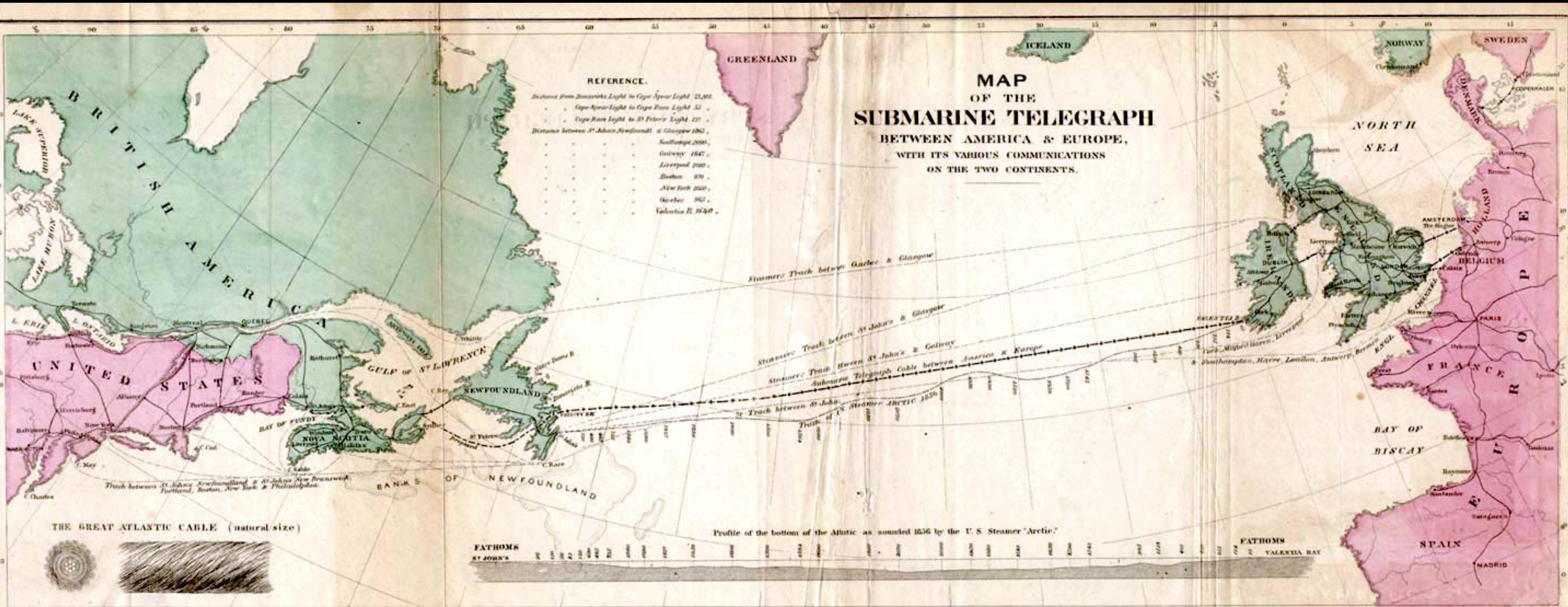


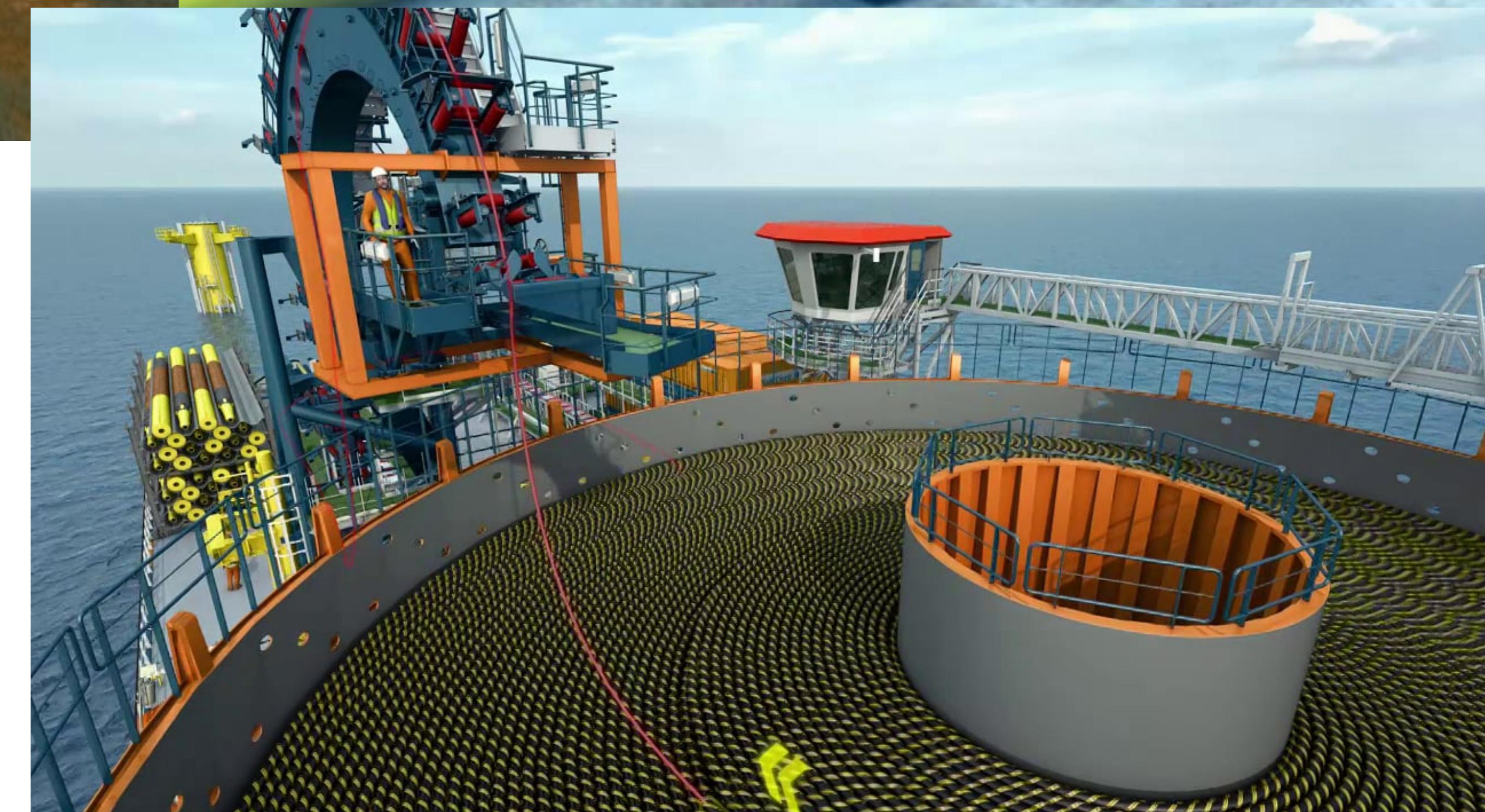
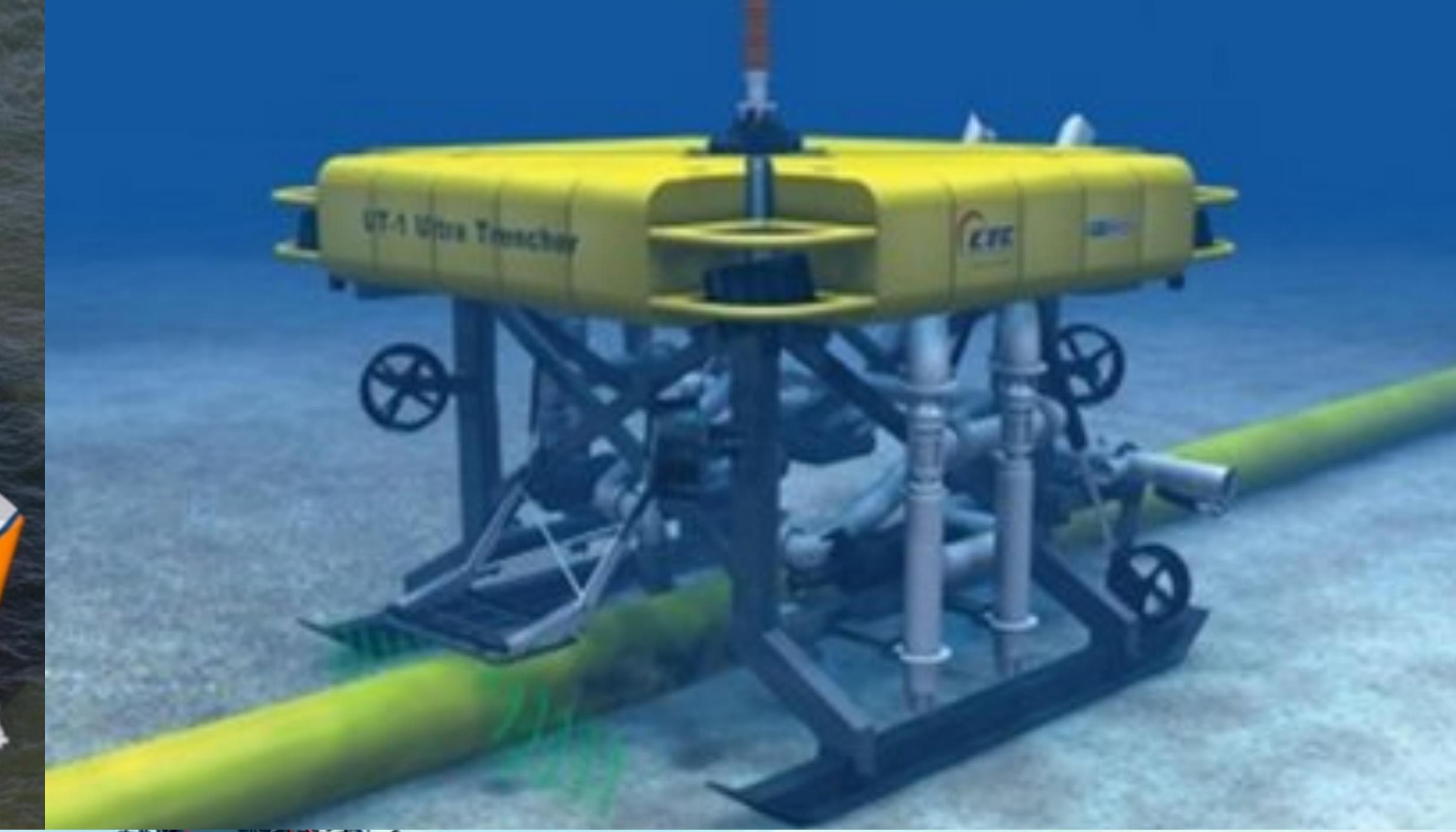




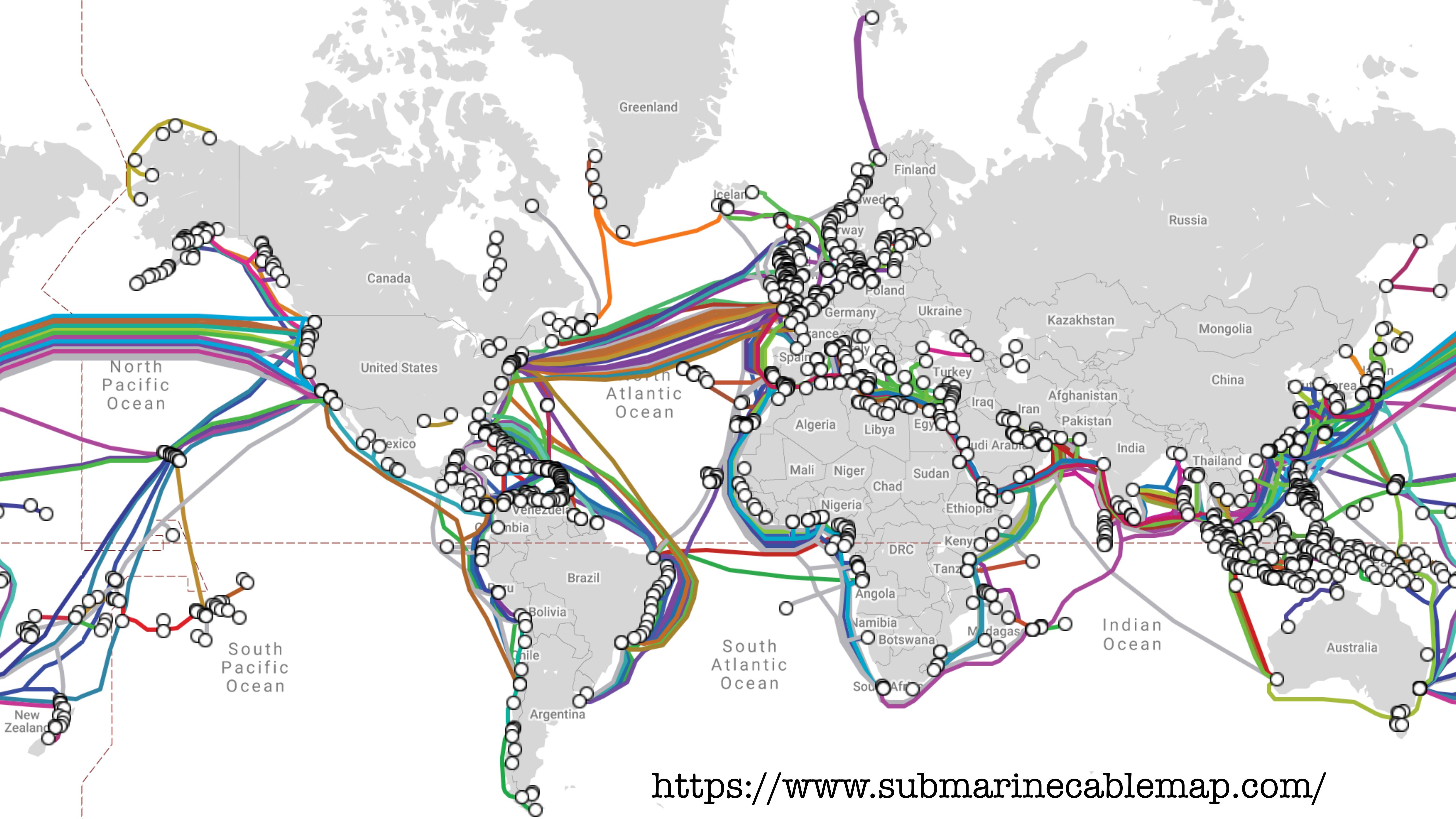








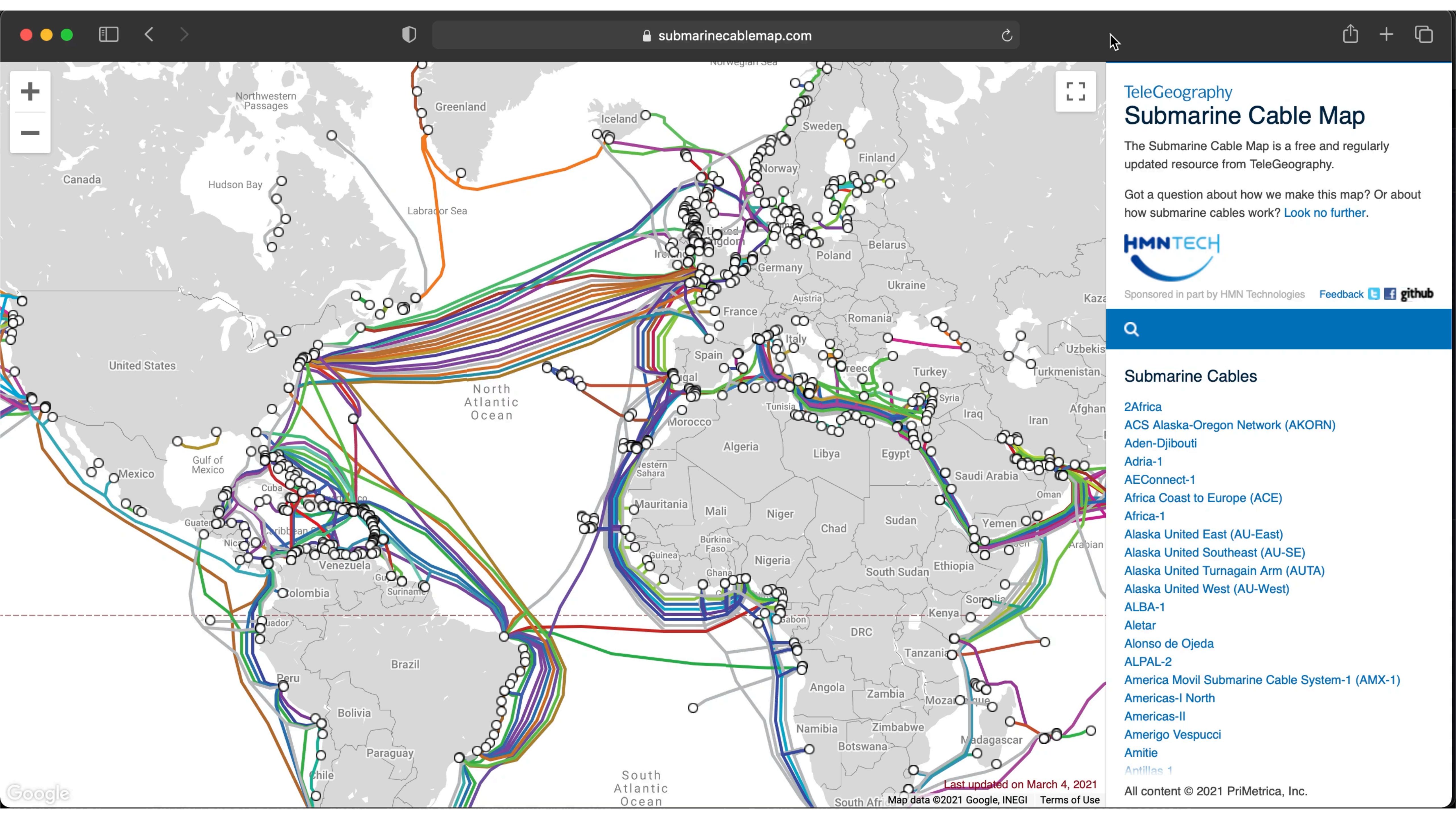
<https://vimeo.com/123296696>



<https://www.submarinecablemap.com/>



<https://youtu.be/lex7uTQf4bQ>



## Internet Censorship

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“The Net interpreted censorship as damage and routes around it.”

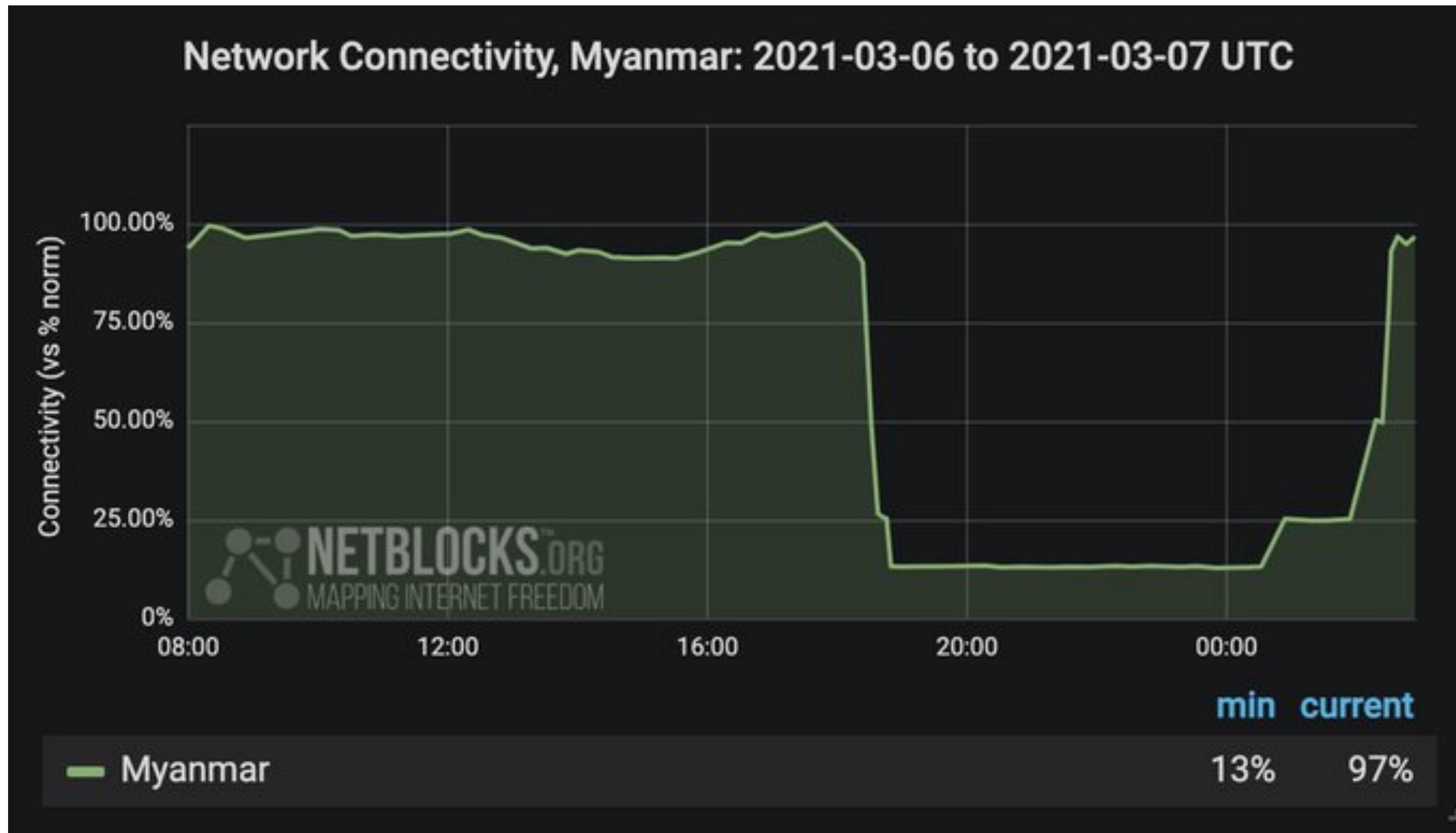
John Gilmore, 1993

“Oh yeah? We’ll see about that!”

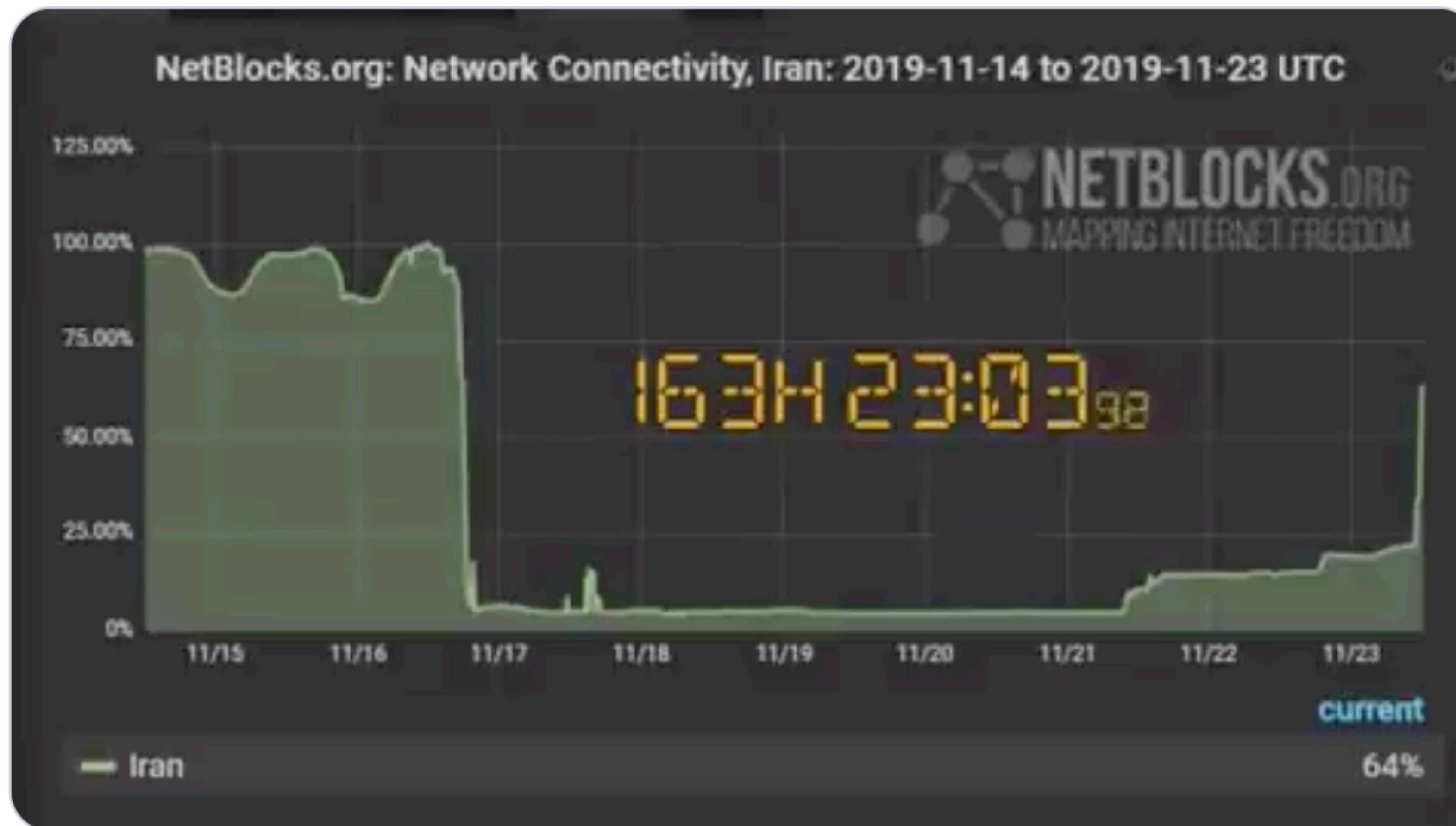
Dictators and Authoritarians everywhere

# Internet Censorship

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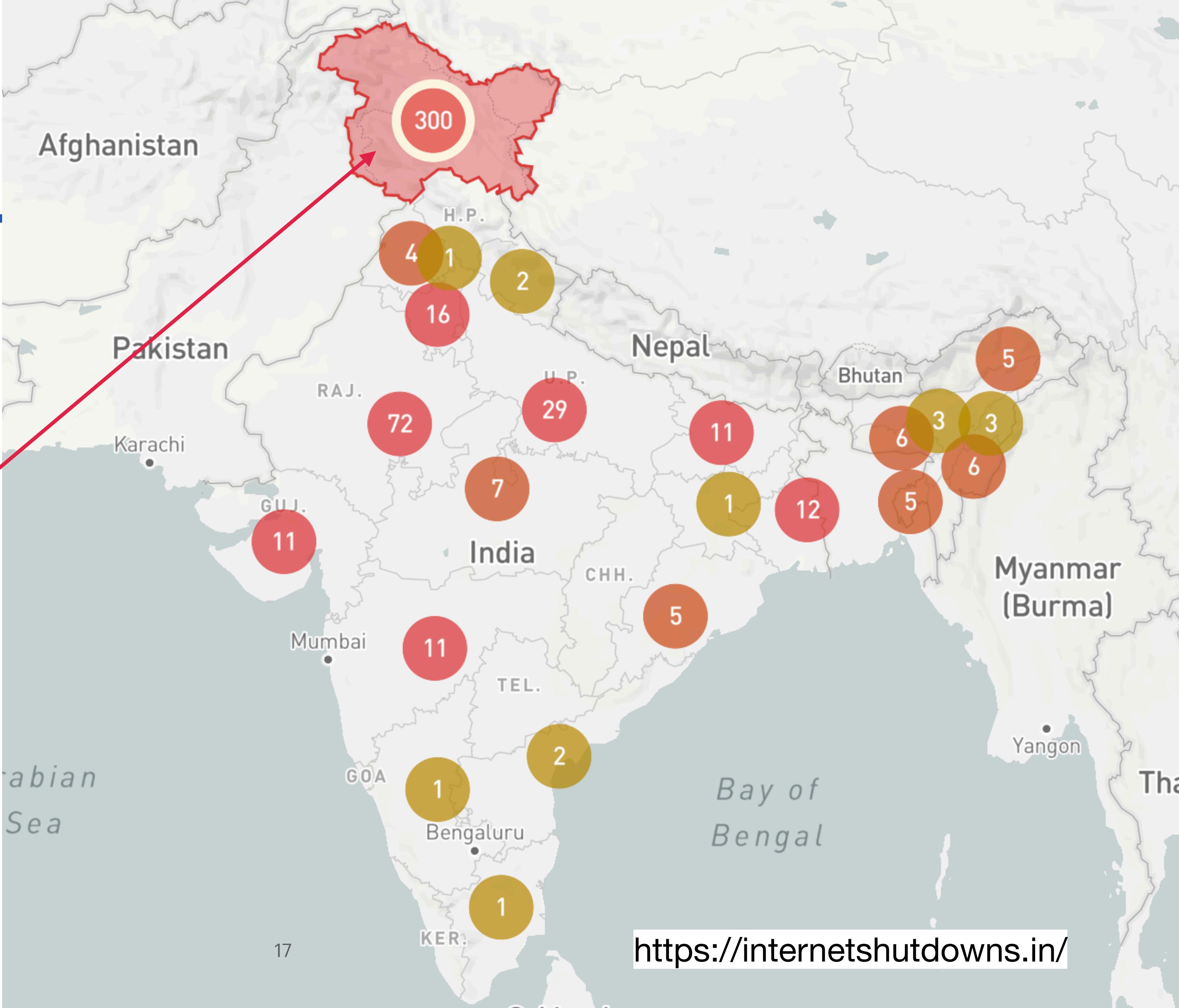
# Internet Censorship



<https://twitter.com/netblocks/status/1198215946286055424>

# Internet Censorship

- India “leads” the world in volume of internet shutdowns
- longest shutdown in a democracy: Kashmir; 2019-08-05 – 2020-03-04 (213 days), not fully restored until 2021-02-05
- economic cost after 6 months: > \$2.4 billion and nearly half a million jobs.





## Links

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- <https://njfx.net/>
- [https://en.wikipedia.org/wiki/2008\\_submarine\\_cable\\_disruption](https://en.wikipedia.org/wiki/2008_submarine_cable_disruption)
- [https://en.wikipedia.org/wiki/2019\\_Internet\\_blackout\\_in\\_Iran](https://en.wikipedia.org/wiki/2019_Internet_blackout_in_Iran)
- <https://www.article19.org/ttn-iran-november-shutdown/>
- <https://www.internetsociety.org/policybriefs/internet-shutdowns>
- [https://en.wikipedia.org/wiki/2019%E2%80%932021\\_Jammu\\_and\\_Kashmir\\_lockdown](https://en.wikipedia.org/wiki/2019%E2%80%932021_Jammu_and_Kashmir_lockdown)
- <https://blog.cloudflare.com/how-syria-turned-off-the-internet/>
- [https://en.wikipedia.org/wiki/Room\\_641A](https://en.wikipedia.org/wiki/Room_641A)
- <https://cryptome.org/klein-decl.htm>