



Copenhagen – June 24th, 2025

AAAI International Conference on Web and Social Media (ICWSM'25)

Elephant in the Room: Dissecting and Reflecting on the Evolution of Online Social Network Research

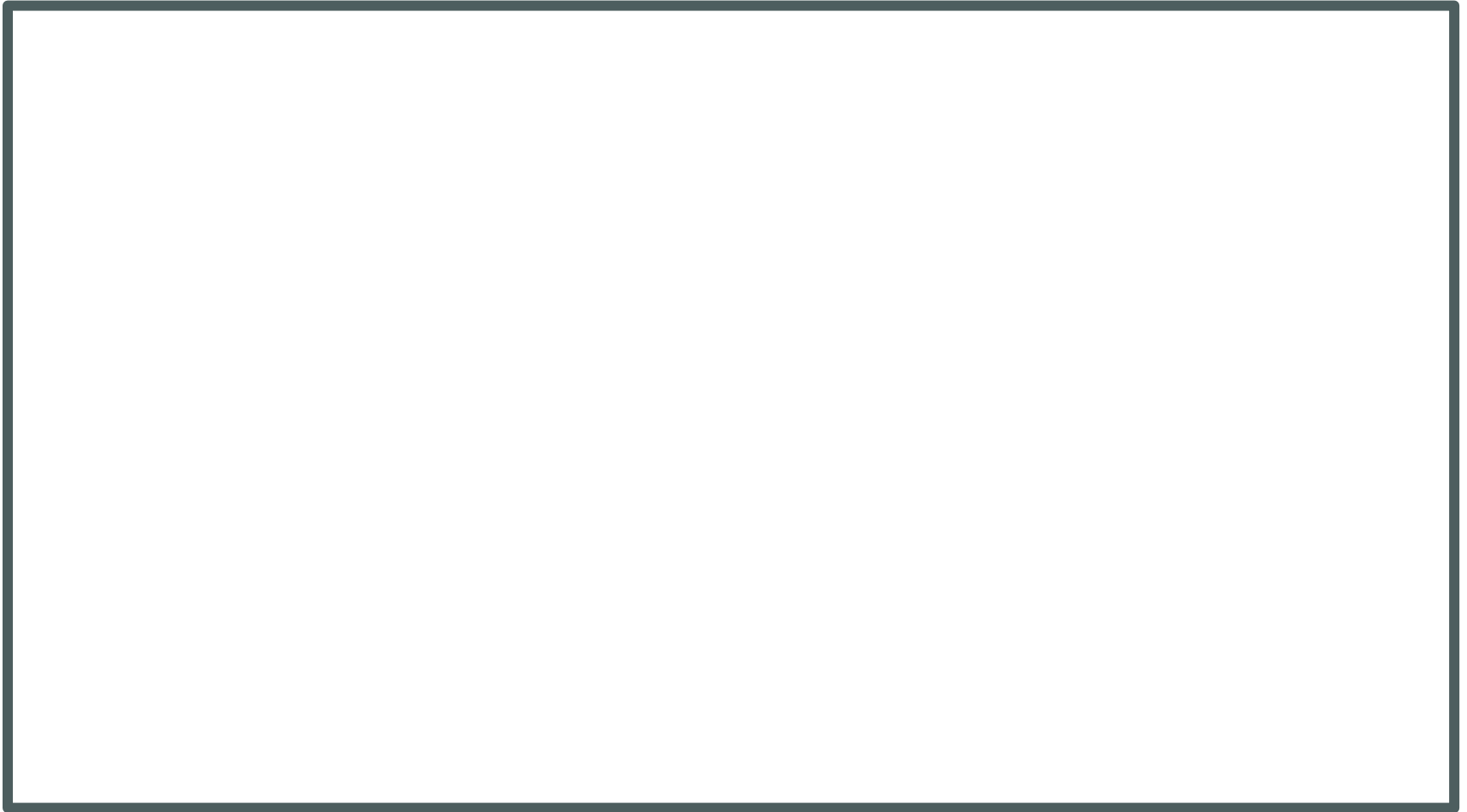
Luca Pajola, Saskia Laura Schröer, Pier Paolo Tricomi,
Mauro Conti, Giovanni Apruzzese

Imagine a Room.

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Imagine a Room. Let's call this the Online Social Network room



Imagine a Room. Let's call this the Online Social Network room
Over the years, this room *evolved*



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Some social networks disappeared

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Some social networks disappeared, new ones appeared

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Some social networks disappeared, new ones appeared, others changed

Research has been looking at Online Social Networks for years.
We wonder: *what has such research done since 2006?*



Acquisti, Alessandro, and Ralph Gross. "Imagined communities: Awareness, information sharing, and privacy on the Facebook." *International Workshop on Privacy Enhancing Technologies*. 2006.

Research Questions

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2. What are the predominant patterns among **authors**?
3. How do the considered **research topics** differ across social networks?
4. How does the research output differ across **geographical areas**?
5. How does the **popularity** of online social networks relate to their prevalence in research?

How?

- We seek to analyse **all papers** published on this domain.

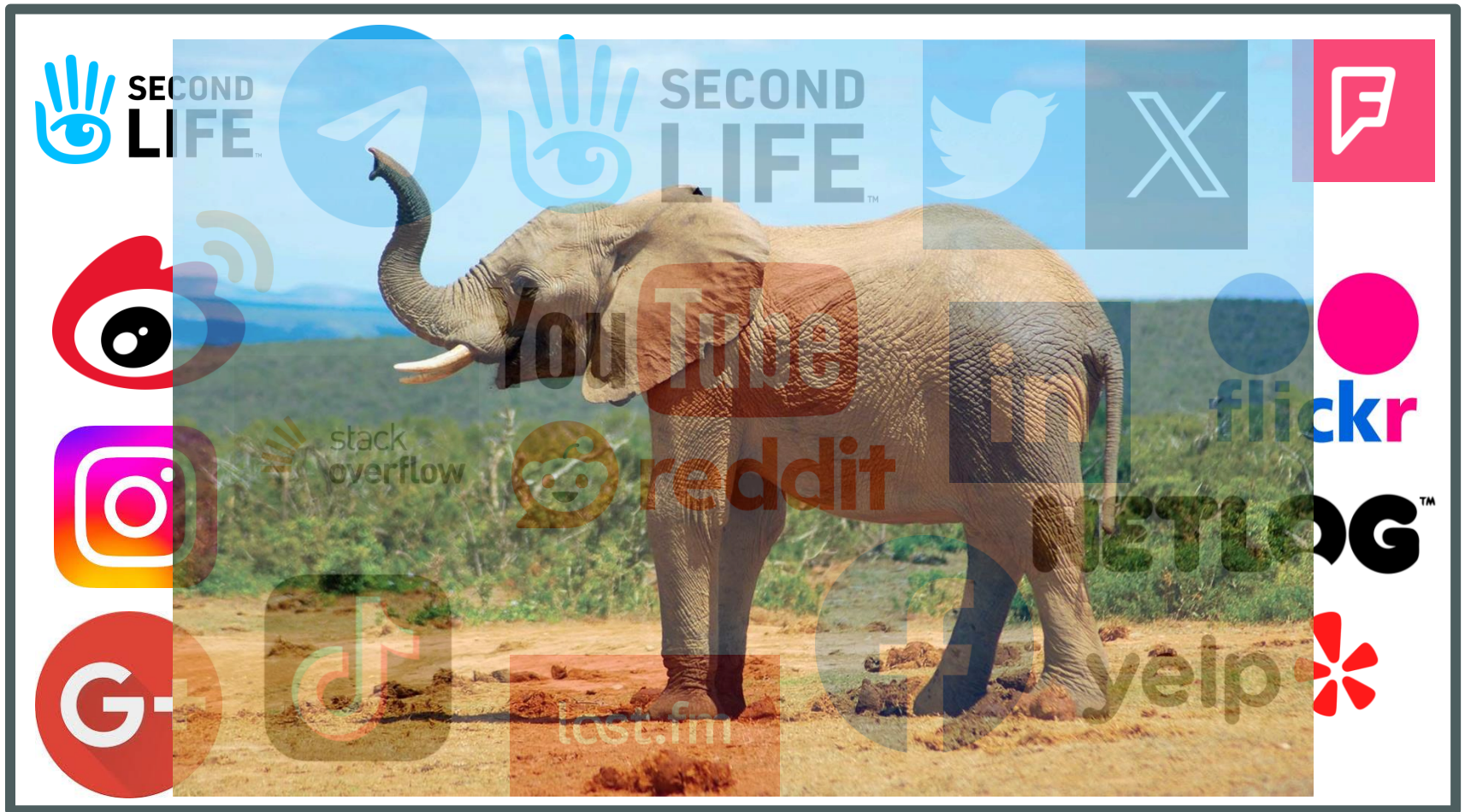
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- We seek to analyse **all papers** published on this domain.
- We retrieve the **over 2 million papers indexed by Scopus**, looking for those dealing with online social networks.
- We identify **13842 papers**, published between 2006 and 2023 across 135 peer-reviewed venues, and encompassing over 200 unique social networks

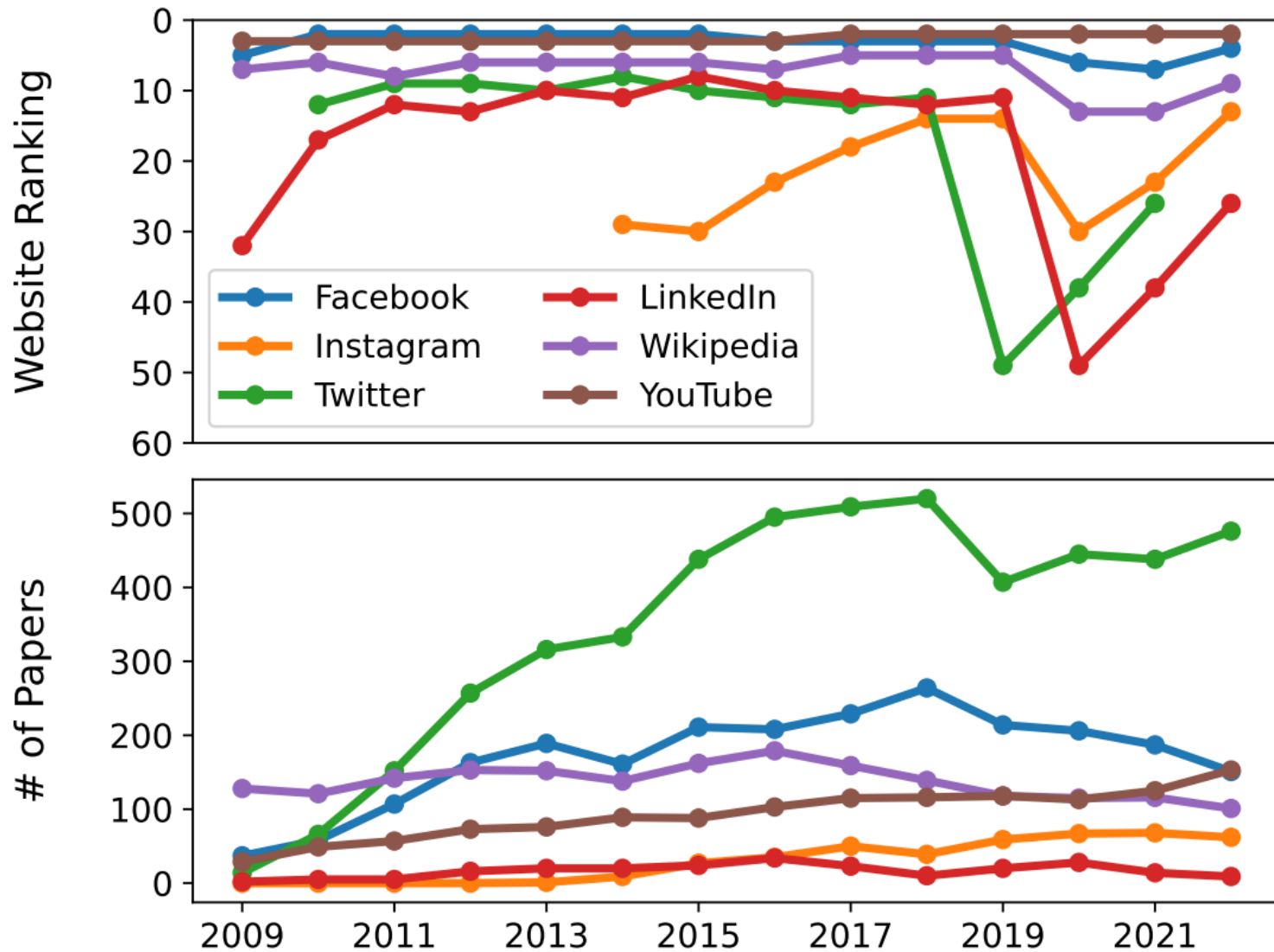
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- We identify **13842 papers**, published between 2006 and 2023 across 135 peer-reviewed venues, and encompassing over 200 unique social networks
- For each paper, we analyse their **metadata** (title, abstract, authors, affiliation) to answer our RQs.
- We call this the "**Minerva-OSN**" dataset, and we publicly release it in our GitHub repository. (<https://github.com/pajola/Minerva-OSN>)





Some findings (prevalence in research vs real-world popularity)



Takeaways

- We are the first to provide factual evidence of the ‘elephant in the room’
- We release the Minerva-OSN dataset (metadata of ~14k OSN-related papers)
- We identify challenges (also with a user study, n=50) that impair future research

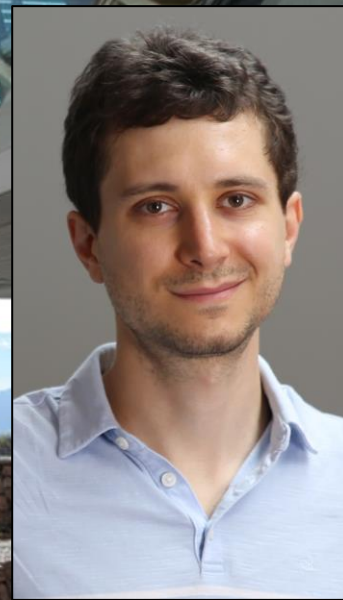
Our code/data are publicly available: <https://github.com/pajola/Minerva-OSN>

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Recommendation: we should avoid excessively focusing on one social network (e.g., Twitter/X) because it may not reflect the entirety of the real-world population, which is scattered across different platforms (e.g., TikTok is more popular among young users *today*, and there is very limited research done on TikTok).



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