

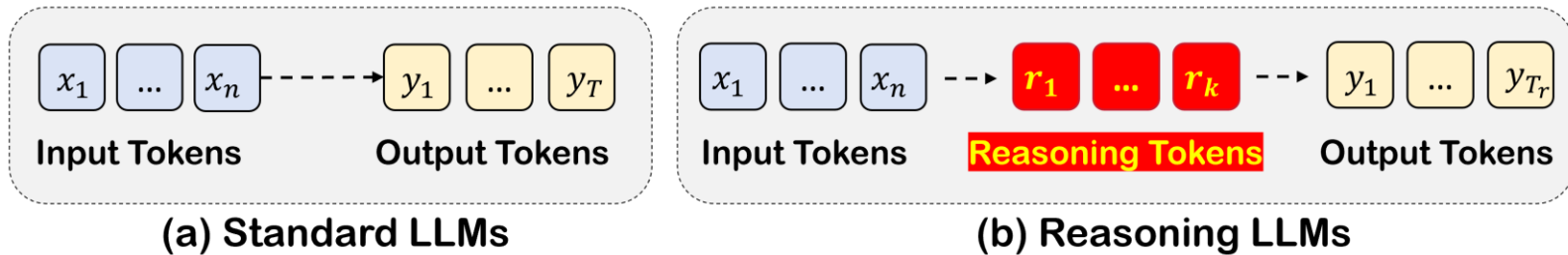
Federated Reasoning LLMs: A Survey

**Shuyue WEI, Yongxin TONG, Zimu ZHOU, Yi XU,
Jingkai GAO, Tongyu WEI, Tianran HE, Weifeng LV**

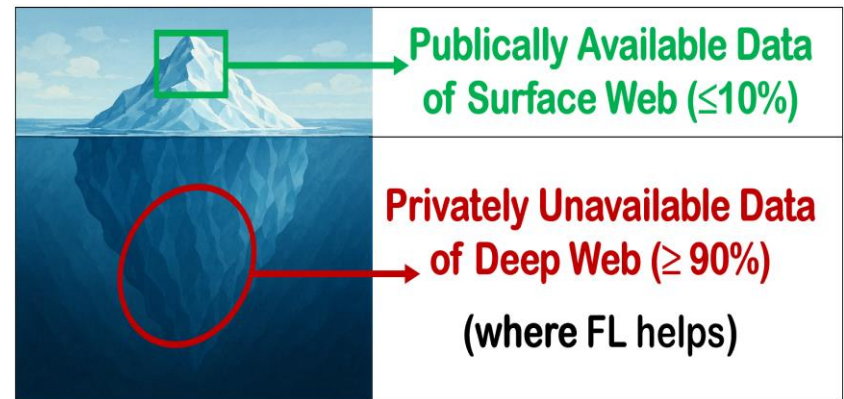
Frontiers of Computer Science, DOI: [10.1007/s11704-025-50480-3](https://doi.org/10.1007/s11704-025-50480-3)

Federated Reasoning LLMs

- From Standard LLMs to Reasoning LLMs:



- Utilizing Federated Learning to enhance the Reasoning Capability



[1] European Parliament. The General Data Protection Regulation (GDPR)

[2] Anonymous Hackers. Is the deep web 90% of the internet? 2025

Taxonomy based on Training Signals

- Training Signal from Raw Data
 - Federated Supervised Learning
- Training Signal from Representation
 - Federated Transfer Learning
- Training Signal from Preference
 - Federated Reinforcement Learning

