

Has It All Been Solved?

Open NLP Research Questions Not Solved by Large Language Models

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Motivation



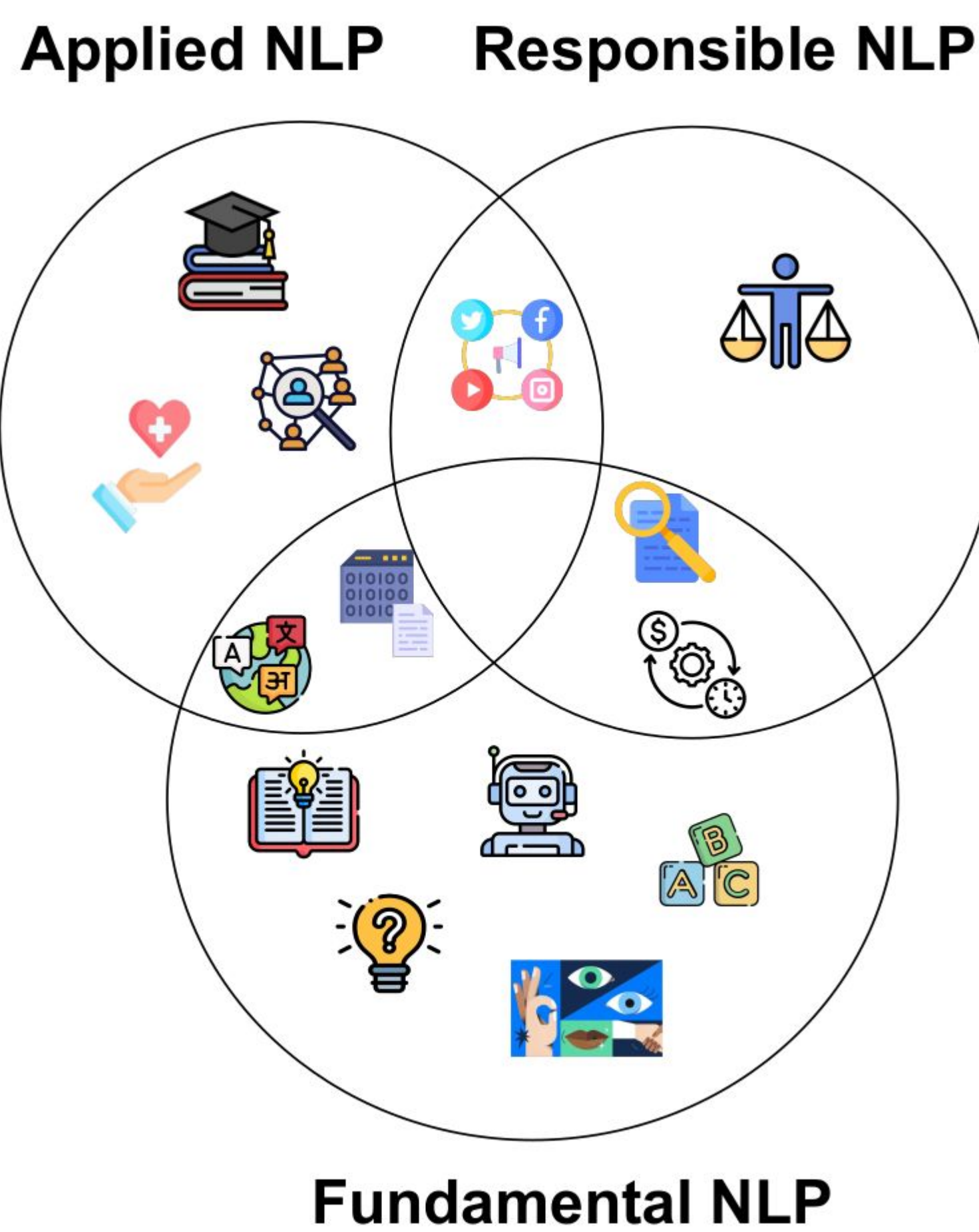
LLM's impressive performance led many researchers -- esp. at the beginning of their careers -- worry about what NLP area to focus on. **Has it all been solved, or what remaining questions can we work on regardless of LLMs?**

Contributions

We identify **14 different research areas**, encompassing **45 research directions** that require new research and are not directly solvable by LLMs and are:

1. Rich for exploration
2. Do not depend on a paid API
3. With reasonable computational costs

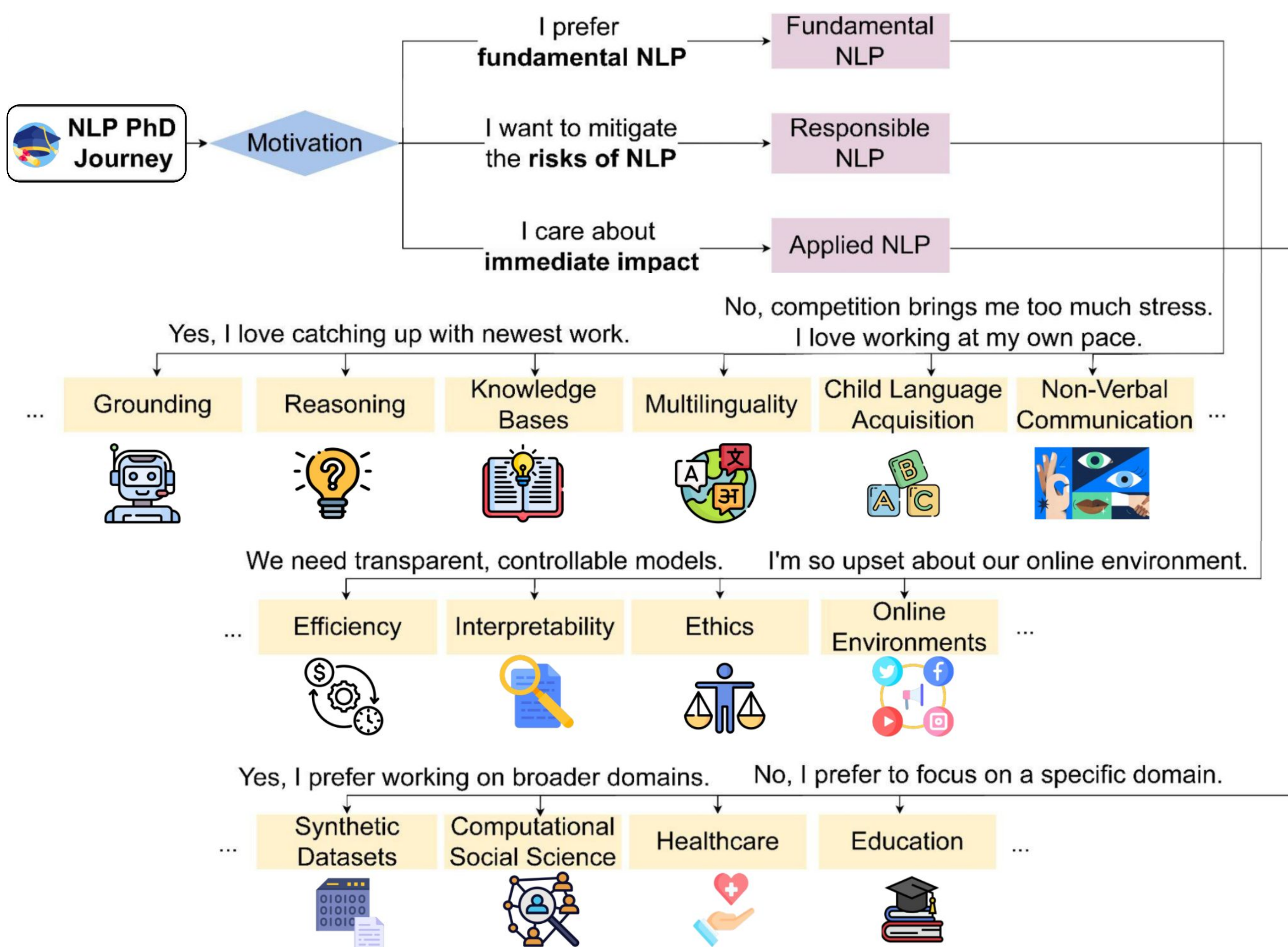
Overview of Unsolved Research Areas



Main NLP Research Areas

- Multilinguality
- Reasoning
- Knowledge Bases
- Language Grounding
- Computational Social Science
- Online Environments
- Child Language Acquisition
- Non-Verbal Communication
- Synthetic Datasets
- Interpretability
- Efficient NLP
- NLP in Education
- NLP in Healthcare
- NLP and Ethics

Guidance: Start from Your Motivation ...



So, What Should I Work On?

Consider **your previous experiences**, look around at **your community**, explore **your curiosities** about *language* and about *people*, and find what resonates with you the most. Building on this foundation, identify the tasks that **connect to your motivations**.

And have fun :).

We welcome feedback at ..

bit.ly/nlp-era-llm

