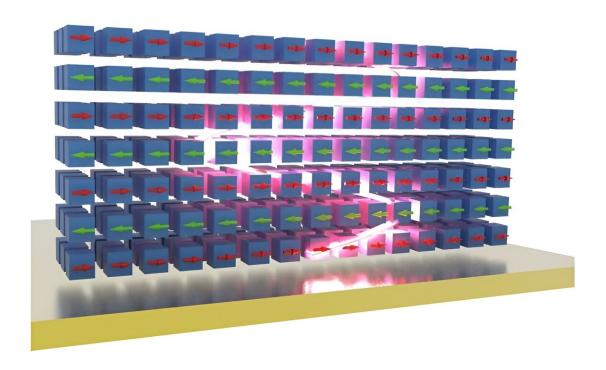
## Best of Last Week—Complexity of 1,314 languages, ChatGPT beats Stack Overflow, trapping light inside a magnet

August 21 2023, by Bob Yirka



Light trapped inside a magnetic crystal can strongly enhance its magneto-optical interactions. Credit: Rezlind Bushati

It was a good week for human historical research, as a team of

archaeologists from several institutions in China found evidence that China's ancient water pipe networks were a communal effort accomplished without a centralized state authority and were maintained as part of a local community effort as well. Also, an international team of anthropologists measured the grammatical complexity of 1,314 languages and in so doing were able to outline the evolution of complex grammars. And an international team of anthropologists, archaeologists and geneticists has learned more about the migration patterns of people living around the Mediterranean Sea during the Iron and Bronze ages by sequencing the genes of people who lived there.

In technology news, a team of mechanical engineers from Chung-Ang University, Massachusetts General Hospital, LS Materials and Yonsei University has found that shaking a hand-held cylinder containing crumpled aluminum foil balls produces enough electricity to light a small LED grid. And a team of computer scientists at Purdue University pitted Stack Overflow against ChatGPT and found that that test subjects comparing the two preferred answers given by ChatGPT—many suggested its answers to queries were more insightful. Also, a team of engineers at ETH Zurich created a program that allows robots to perform activities without prerecorded expert demonstrations. They describe it as moving one step closer to autonomous robots. And a team at Lawrence Berkeley National Laboratory developed a supramolecular organo-ionic electrolyte that can be liquidated for recycling, making it easier to recycle car batteries.

In other news, an international team of physicists found a way to <u>trap</u> <u>light inside of a magnet</u>—it could enhance the intrinsic properties of magnetic materials. Also, a team of neuroscientists at Trinity College of Dublin tested a theory that <u>forgetting is actually a form of learning</u>. They found it allows the brain to interact dynamically with a dynamic environment. And finally, the Task Force on Postovulatory Methods of Fertility Regulation found that taking piroxicam, an anti-inflammatory

medication commonly used for arthritis pain, along with the emergency contraceptive pill levonorgestrel following unprotected sex <u>prevents</u> <u>significantly more pregnancies</u> compared to taking levonorgestrel alone.

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