# Article information:

What's next for quantum computing | MIT Technology Review
<https://www.technologyreview.com/2023/01/06/1066317/whats-next-for-quantum-computing/>

# Article summary:

1. In 2023, the focus in quantum computing will shift from hardware advancements to researchers working on connecting chips and building modular quantum computers.

2. IBM is expected to release a processor called Heron with 133 qubits that can connect directly to other Heron processors, enabling the scaling up of quantum computers.

3. Progress is also expected in areas such as stringing quantum computers together, addressing noise and error correction, and improving programming tools for quantum computing.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article titled "What's next for quantum computing" provides an overview of the current state and future prospects of quantum computing. While it offers some valuable insights, there are several areas where the article could be improved in terms of critical analysis and providing a balanced perspective.

One potential bias in the article is its focus on IBM's developments in quantum computing. The article mentions IBM multiple times, highlighting their progress in increasing the number of qubits on a chip and their plans for modular quantum computers. While IBM is undoubtedly a major player in the field, there are other companies and research institutions making significant contributions to quantum computing that could have been included for a more comprehensive view.

Additionally, the article lacks evidence or examples to support some of its claims. For example, it states that "thanks to recent breakthroughs, aggressive roadmapping, and high levels of funding," general-purpose quantum computers may be achieved earlier than expected. However, no specific breakthroughs or roadmaps are mentioned, leaving readers without concrete evidence to evaluate this claim.

The article also fails to explore potential risks or challenges associated with quantum computing. While it briefly mentions noise as a challenge and discusses error correction techniques being explored by companies like Google Quantum AI and Quantinuum, it does not delve into other significant obstacles such as decoherence or scalability issues. A more thorough analysis would have provided a balanced view by addressing both the potential benefits and limitations of quantum computing.

Furthermore, the article seems to have a promotional tone when discussing certain companies' advancements. It highlights Baidu's opening access to a 10-qubit processor and Alibaba's work on superconducting qubits without critically examining their achievements or considering alternative perspectives. A more objective approach would have presented these developments alongside other notable advancements in the field.

The article also lacks exploration of counterarguments or alternative viewpoints. It primarily focuses on positive developments and progress in quantum computing without adequately addressing potential criticisms or limitations raised by experts in the field. Including a broader range of perspectives would have provided a more comprehensive analysis.

In conclusion, while the article provides some valuable insights into the current state and future prospects of quantum computing, it could benefit from a more critical analysis and balanced perspective. Addressing potential biases, providing evidence for claims, exploring counterarguments, and considering potential risks would have enhanced the article's credibility and depth of analysis.

# Topics for further research:

* Challenges of quantum computing beyond noise and error correction techniques
* Contributions to quantum computing from companies and research institutions other than IBM
* Potential risks and limitations of quantum computing
* such as decoherence and scalability issues
* Criticisms or limitations raised by experts in the field regarding quantum computing advancements
* Alternative perspectives on the current state and future prospects of quantum computing
* Breakthroughs and roadmaps in quantum computing that may accelerate the achievement of general-purpose quantum computers

# Report location:

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