Telling the Quantum Story: How Narratives Shape Our Technological Future

Quantum technology is often described as complex, mysterious, and transformative. How societies come to understand, accept, or regulate this emerging field depends not only on science, but on the stories we tell about it as well.

We explored how quantum technology is framed across media, government policy, industry discourse, and legal scholarship. By combining machine learning techniques and qualitative analysis, we mapped more than two decades worth of data to explore how quantum technology is being socially constructed and how it shapes real-world change.

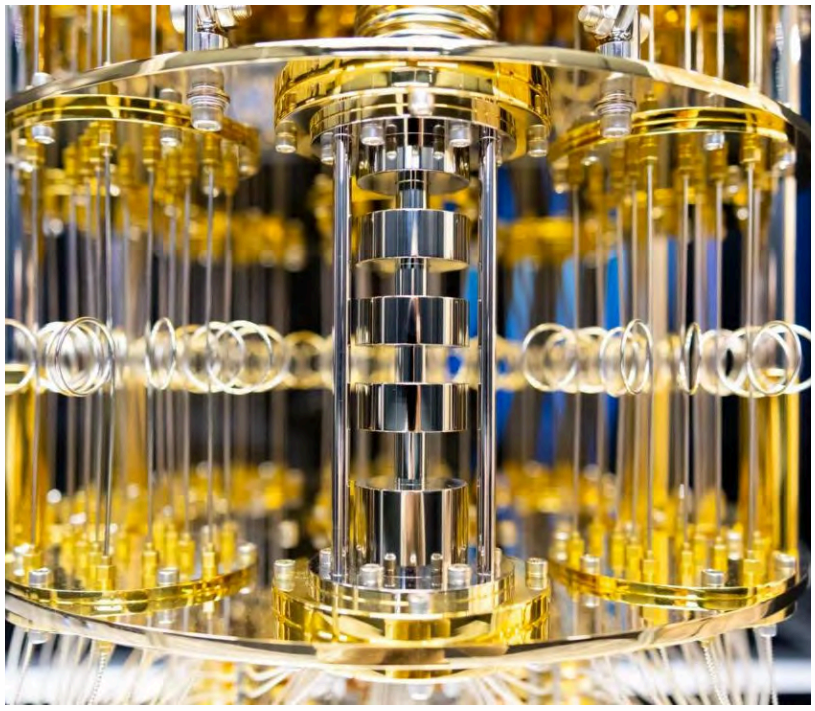

Photo by: Satoshi Kawase, IBM Quantum System One model

In one study, we analyzed 2,300 news articles from major outlets in the US, UK, China, and India. We found that media coverage plays a key role in translating abstract quantum concepts into accessible public narratives. These narratives often highlight both potential breakthroughs (e.g., ultra-secure online communication, medical applications) as well as societal risks (e.g., surveillance, inequality).

Complementing this, we examined national quantum policy strategies. These documents consistently emphasized technological leadership, national security, and economic competitiveness. Yet, most downplayed or omitted dimensions such as ethics, public understanding, and equity. This suggests that without more inclusive and anticipatory governance, national agendas risk reinforcing narrow priorities.

We also studied the emerging legal and regulatory discourse on quantum computing. Reviewing dozens of legal texts, we found that early regulatory conversations are shaped by metaphors and assumptions portraying quantum computing as a revolution demanding urgent control. Others emphasize unknowability, which can exclude public participation.

These early framings matter because they influence future laws, research funding, and public trust.

Together, these findings highlight a crucial yet often overlooked idea:

Narratives are not merely reflections of innovation; they drive it. They influence which risks are acknowledged, which benefits are prioritized, and who participates in the conversation. This, in turn, affects how quantum technology is developed, adopted, and governed.

Our research has already begun to influence conversations about the responsible development of quantum technology. Our publications are presented at leading academic conferences and cited in cross-disciplinary debates. We hope our work informs a more inclusive, transparent, and socially responsive approach to quantum innovation.

Ultimately, our story of change is not just about quantum technology itself but also about equipping society with the tools to ask better questions sooner. By doing so, we aim to contribute to scientific progress and a future in which emerging technologies are developed with and for the public.