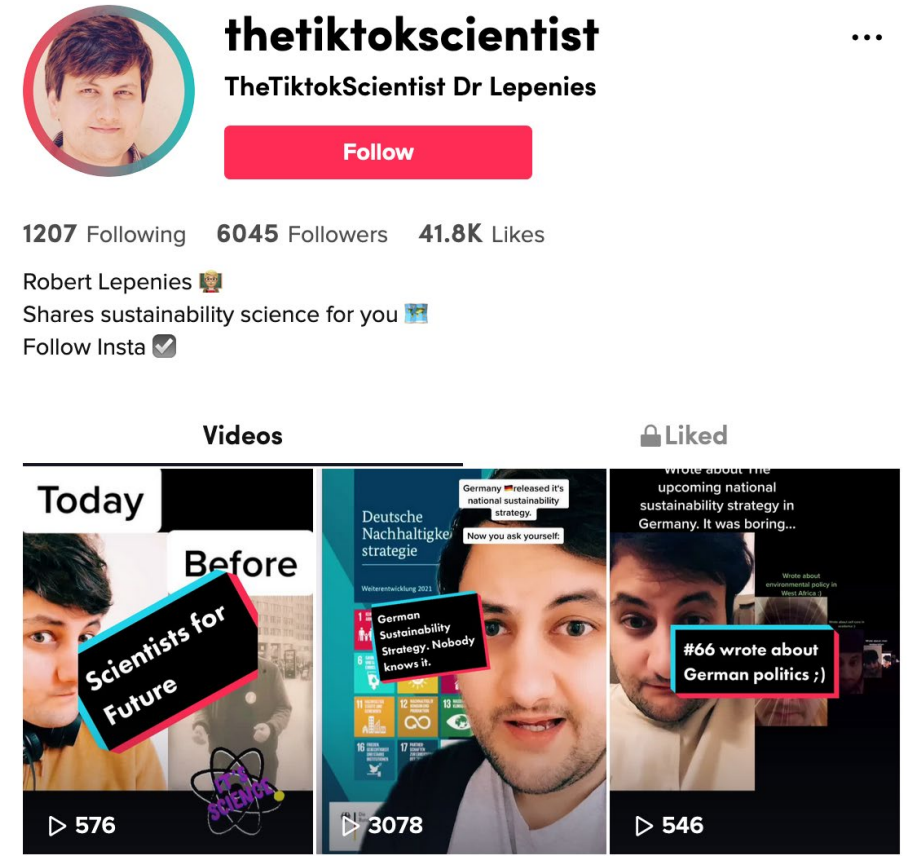


# The wonderful world of science communication on TikTok

Dr. Robert Lepenies  
Helmholtz Centre for Environmental  
Research (UFZ)  
Member of Global Young Academy (EC)



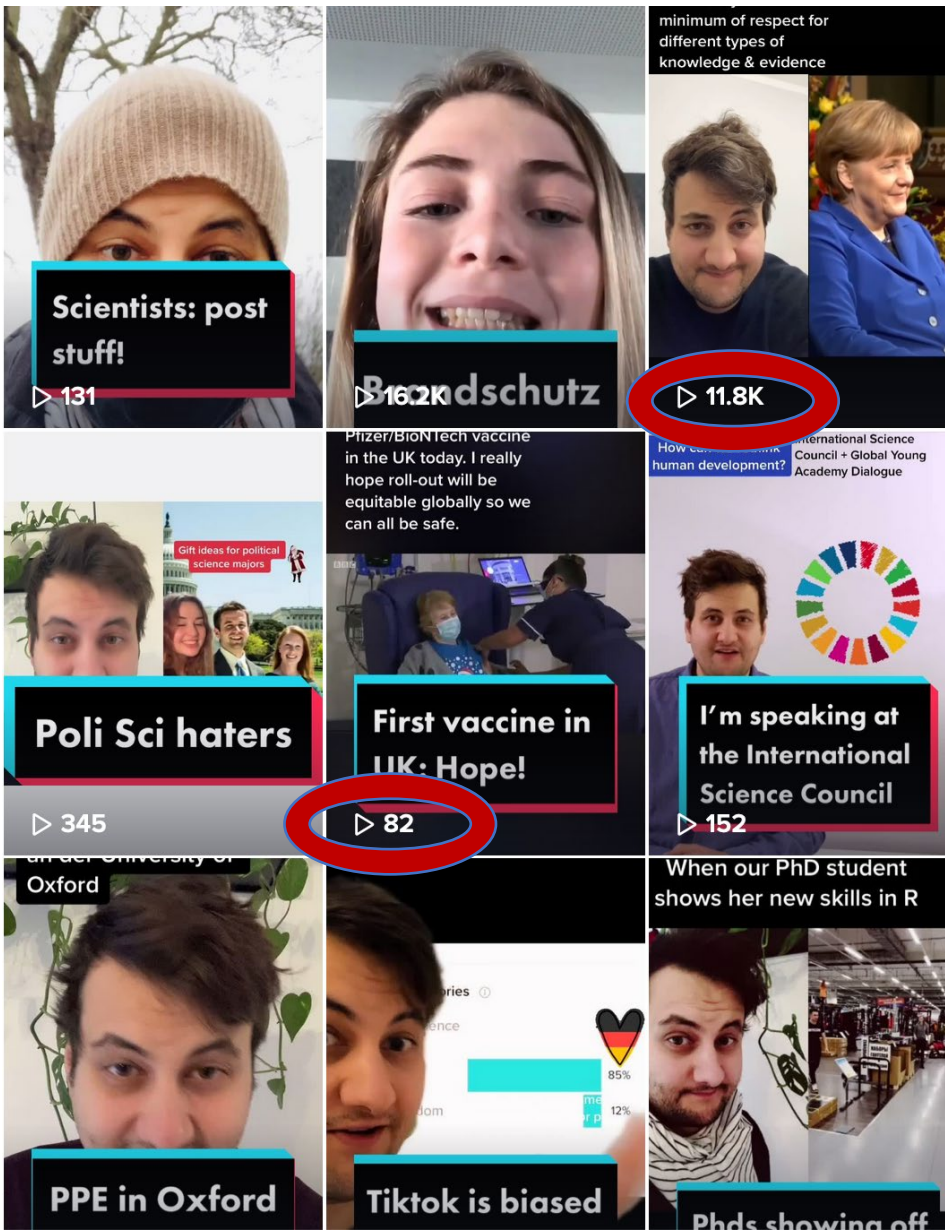
24.03.2021

Science communication on TikTok is powerful because of:

**reach**, **tools**, **interaction**, **authenticity**, **diversity**

**Start experimenting!**

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**REACH**, tools, interaction, authenticity, diversity

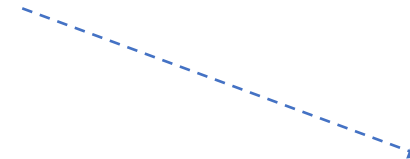
A mysterious and powerful algorithm

+

More than 1 billion active users



Waking up to 100k views without any followers (higher organic reach than any other platform)



How is spending time on this short-form video platform useful for us scientists (& science organizations)?

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Powerful video editing app,  
creative AI filters, huge  
music library for every  
mobile phone

Watch  
and scroll  
for hours

Anyone can  
produce engaging  
content within  
seconds

New modes of  
communication

reach, TOOLS, interaction, authenticity, diversity



**mags4science** Maggie 🧪🔬 · 2020-6-27

To ignore the disparities would be irresponsible. #1  
#womeninstem #education #foryoupage

🎵 original sound - Evanormous



19.9K



185



246



**Connected Papers** @ConnectedPapers · Mar 12

Replying to @ConnectedPapers

On Sunday, a Tik Tok video about us went viral, quickly gaining over 1M views and over 1000 supportive comments. This came out of nowhere - nobody on our team even uses TikTok. Apparently, a huge audience of researchers is hanging there. Check it: [2/12]

[tiktok.com/@oxpat/video/6...](https://tiktok.com/@oxpat/video/6...)

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reach, tools, INTERACTION, authenticity,  
diversity

# What mode of science communication on TikTok?

## Reposting “till Albert Einstein is TikTok famous”: The Memetic Construction of Science on TikTok

AUTHORS  
Jing Zeng, Mike Schäfer, Joachim Allgaier

AUTHOR ASSERTIONS

Conflict of Interest: No ▾

Public Data: Not applicable ▾

Preregistration: Not applicable

Figure 15. An example a video of the pregnancy-test memes.

### Discussion and Conclusion

With TikTok’s rising popularity, the prevalence of science-related content has

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plaudit

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wor

1. Mostly STEM, experimental settings
2. “excessively uncritical attitude” towards science

BUT a more

Egalitarian public engagement model (easier to personally interact with scientists than any other platform).

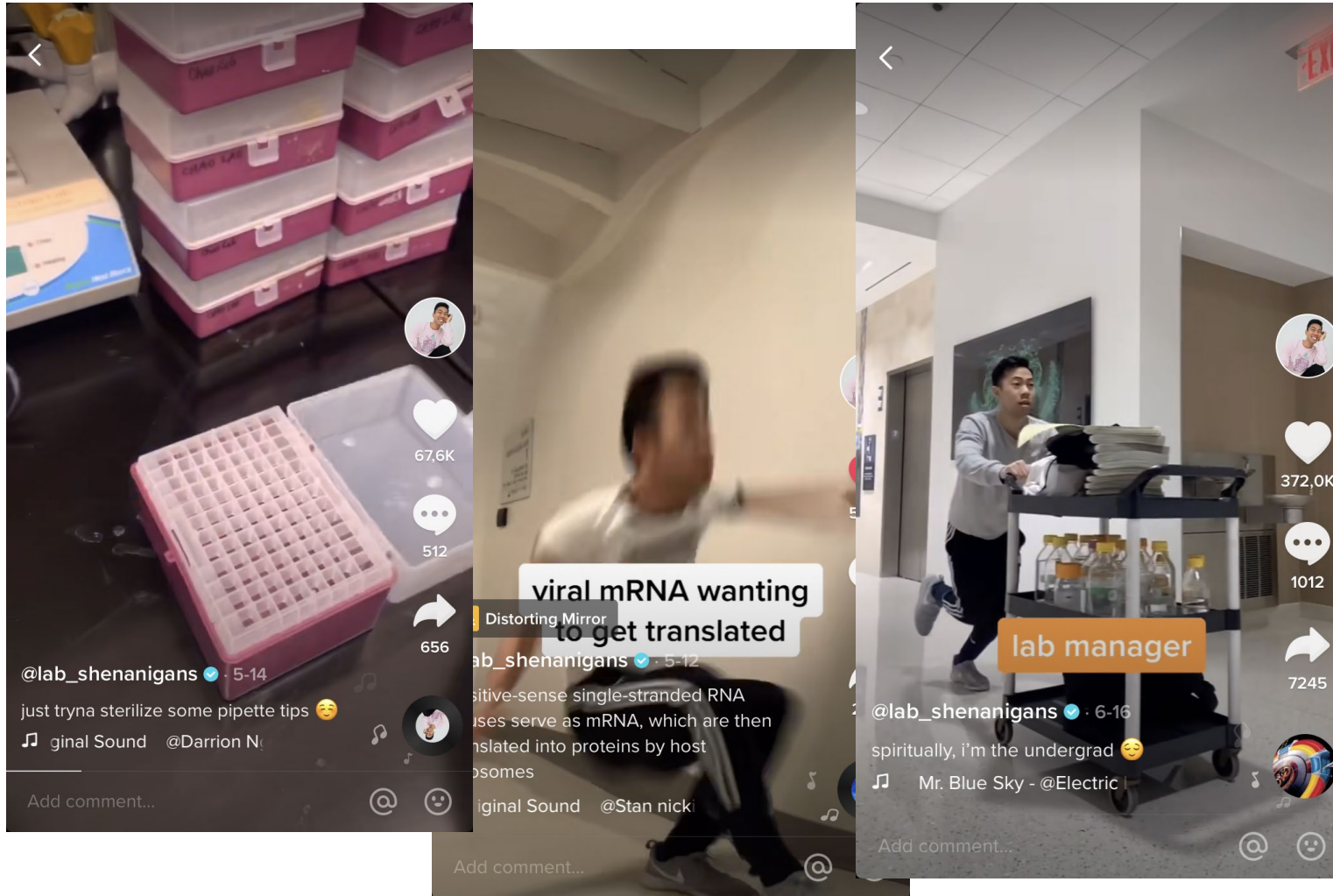
Huge potential to show science-in-the-making (Shapin 1992)?

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# Building trust in science: Showing the process, not just the outcome of science.

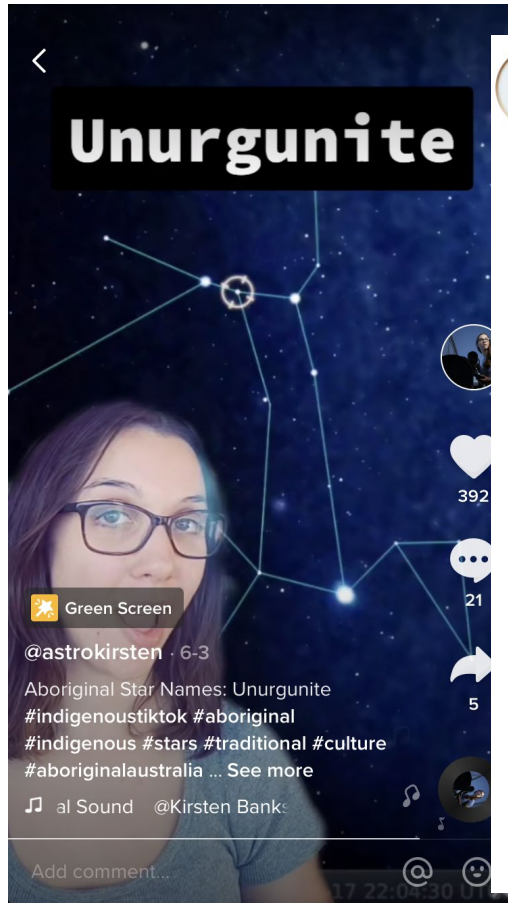
reach, tools, INTERACTION, authenticity, diversity



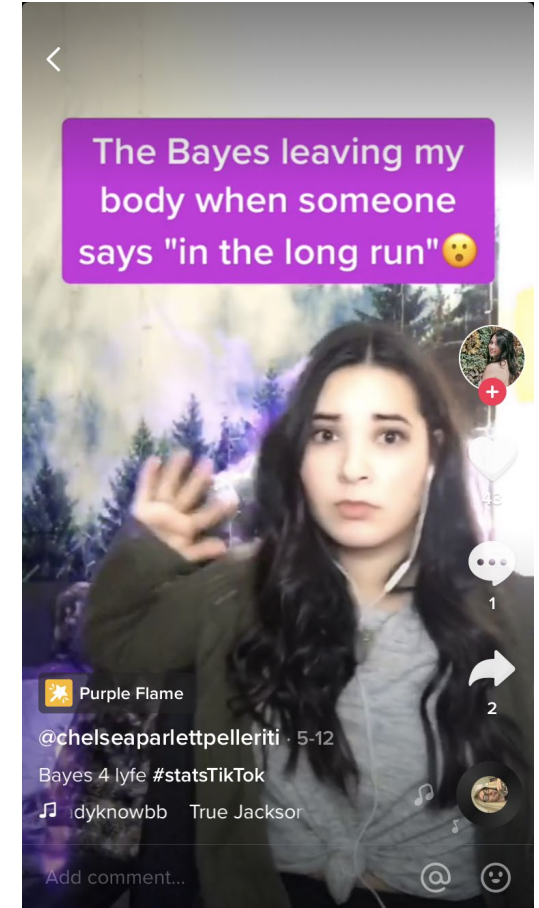
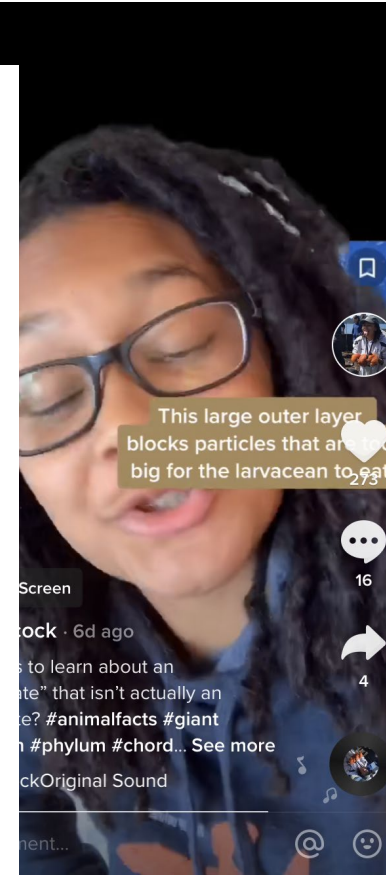
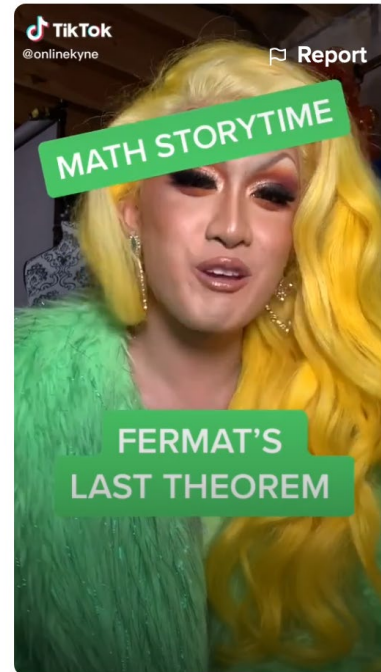
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# ScienceTikTok as welcoming & inclusive

reach, tools, interaction, AUTHENTICITY, DIVERSITY



**onlinekyne** ✓ Kyne · 5-17  
Have you ever heard the story of Fermat's Last Theorem?  
#math #education #edutok #drag #dragqueen  
🎵 original sound - onlinekyne

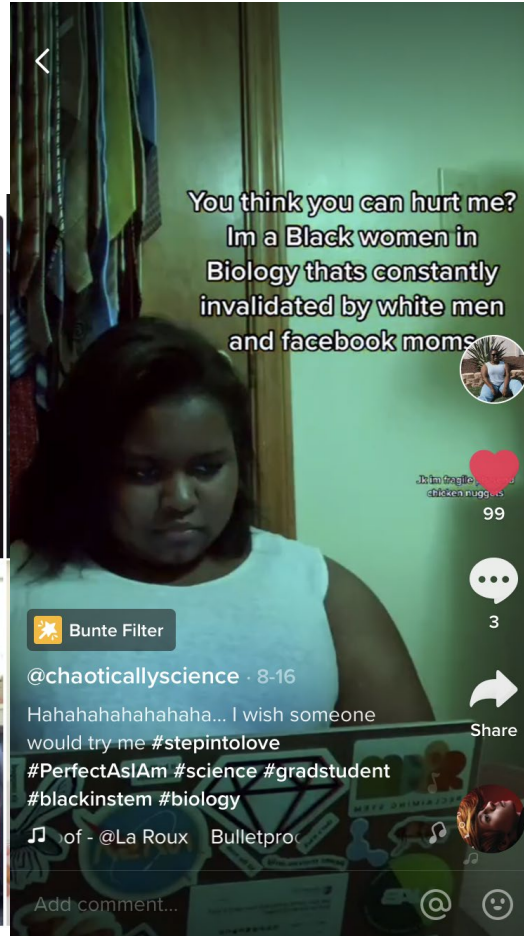
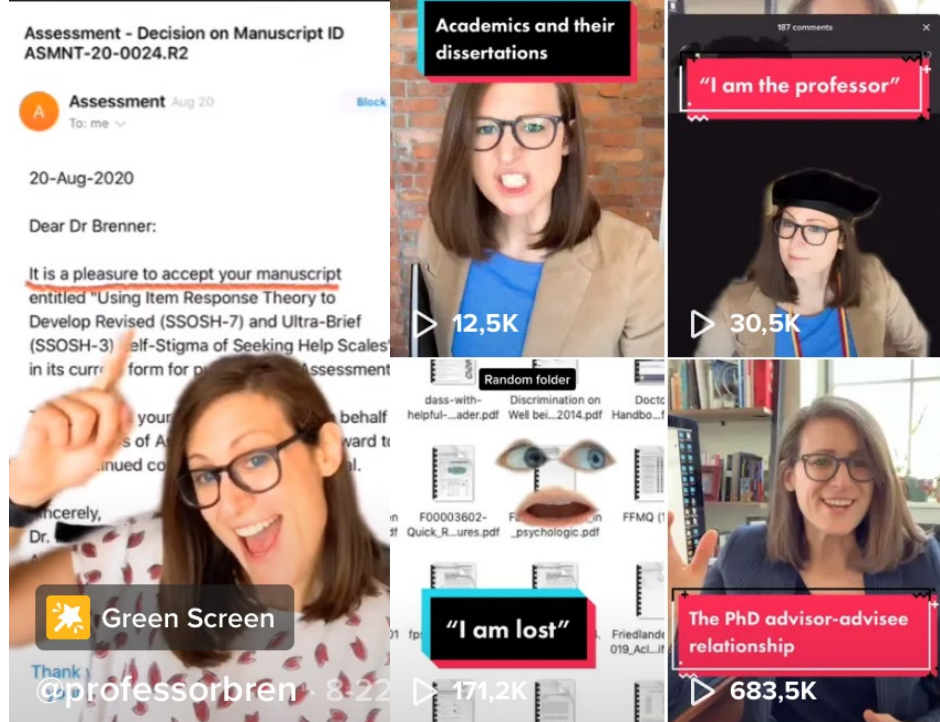


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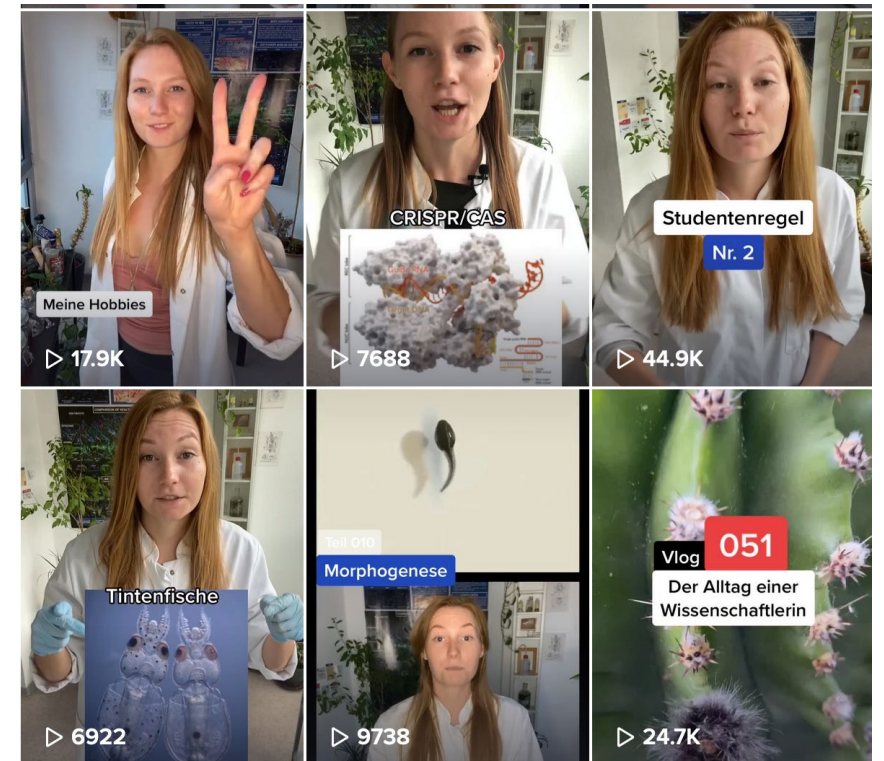


# ScienceTikTok as welcoming & inclusive, stressing societal impact

Accepted for publication by  
a top-tier clinical  
assessment journal!

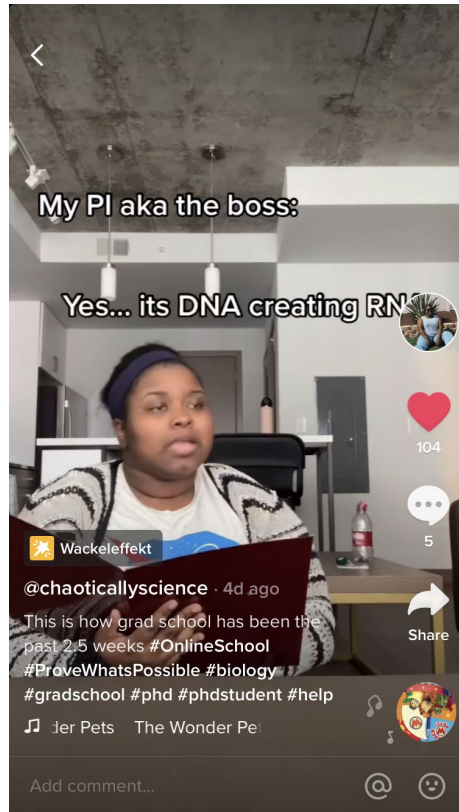


@diewissenschaftlerin

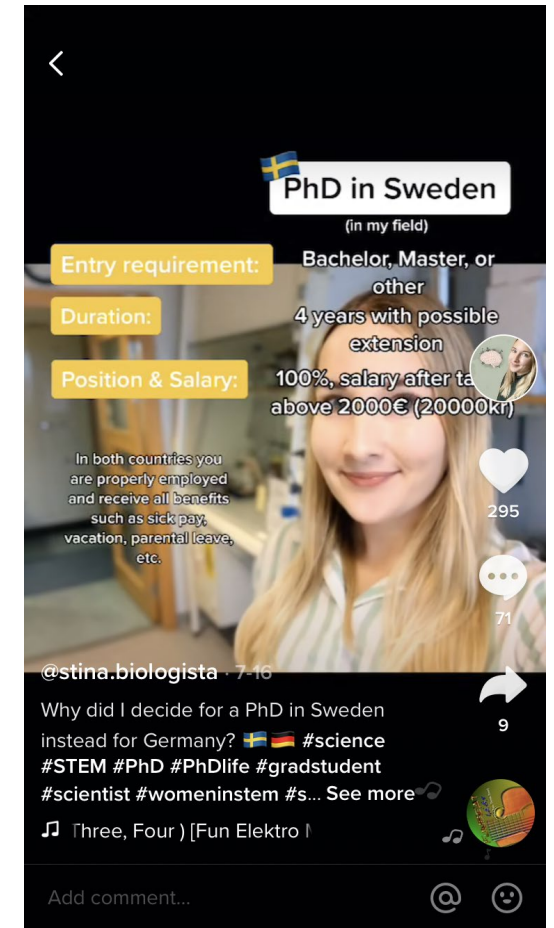


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**Authenticity and experimentation above everything: Many low-threshold forms of engagement possible through reactions, filters, sounds.**



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## **Limitations:**

- 1. Not \*directly\* useful for research purposes or networking  
(unlike twitter & LinkedIn)**
- 2. Data Privacy/ Ethical Issues/ Censorship/ Surveillance/  
Geopolitical issues/not disability friendly/addictive...**
- 3. Poor moderation of comments: rampant racism, sexism**
- 4. Regional bias of algorithm; Western bias of content**

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# What about science organizations?

1. Only very few successful organizations on TikTok (Washington Post; NPR...), not a single science organization (users expect entertainment, not top-down communication)
2. Can try to cross-post & repurpose content (low cost)
3. Encourage individual communicators to experiment but shield and protect them in case of backlash
4. Spend time \*consuming content\* to understand new forms of digital communication, and then apply insights elsewhere

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## TikTok is a chance to

1. Embrace Quantity more often in science communication  
(it's not a dirty word)
2. Engage in story sharing, not just story telling.
3. Learn that to improve #scicomm, we need to consume content first (and meet the future of science?)