

A small-data mindset for generative AI creative work

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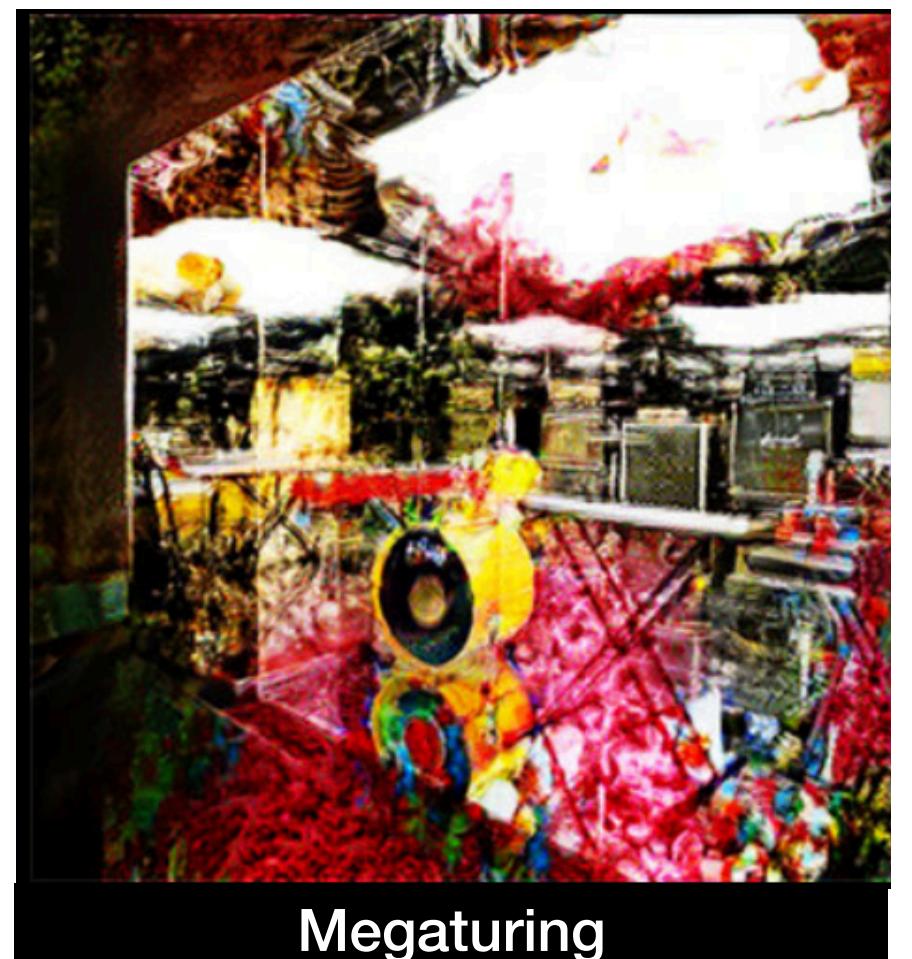
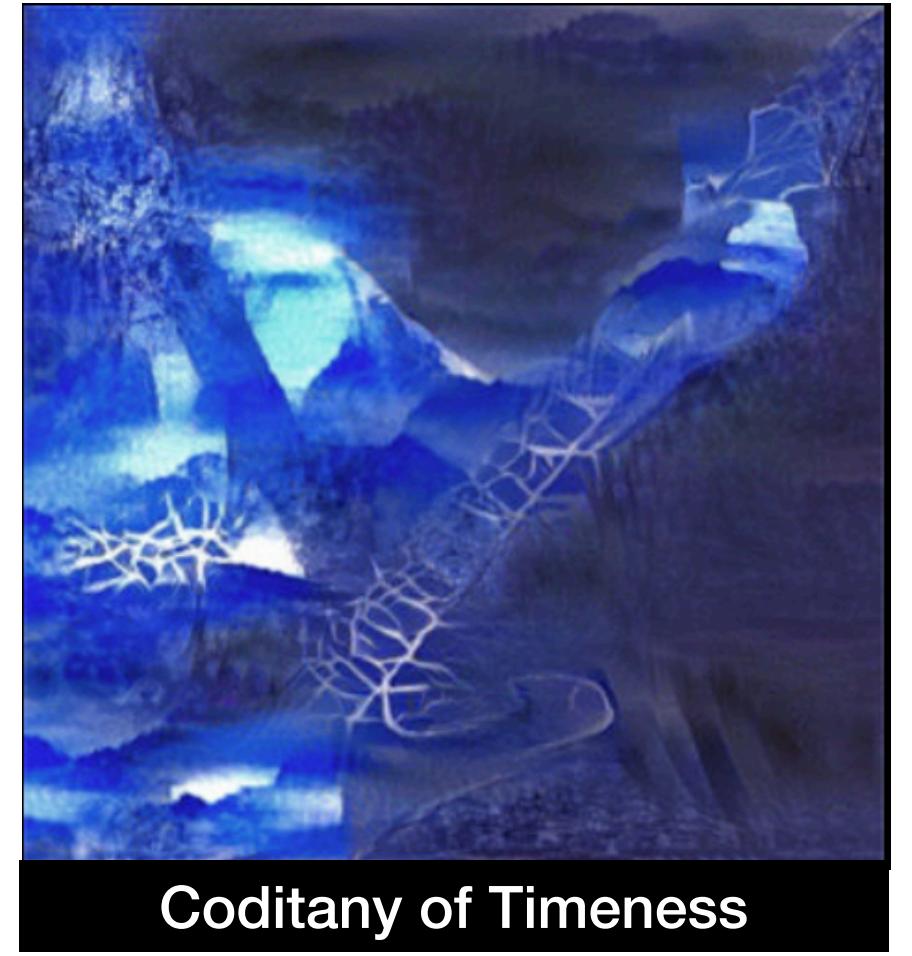
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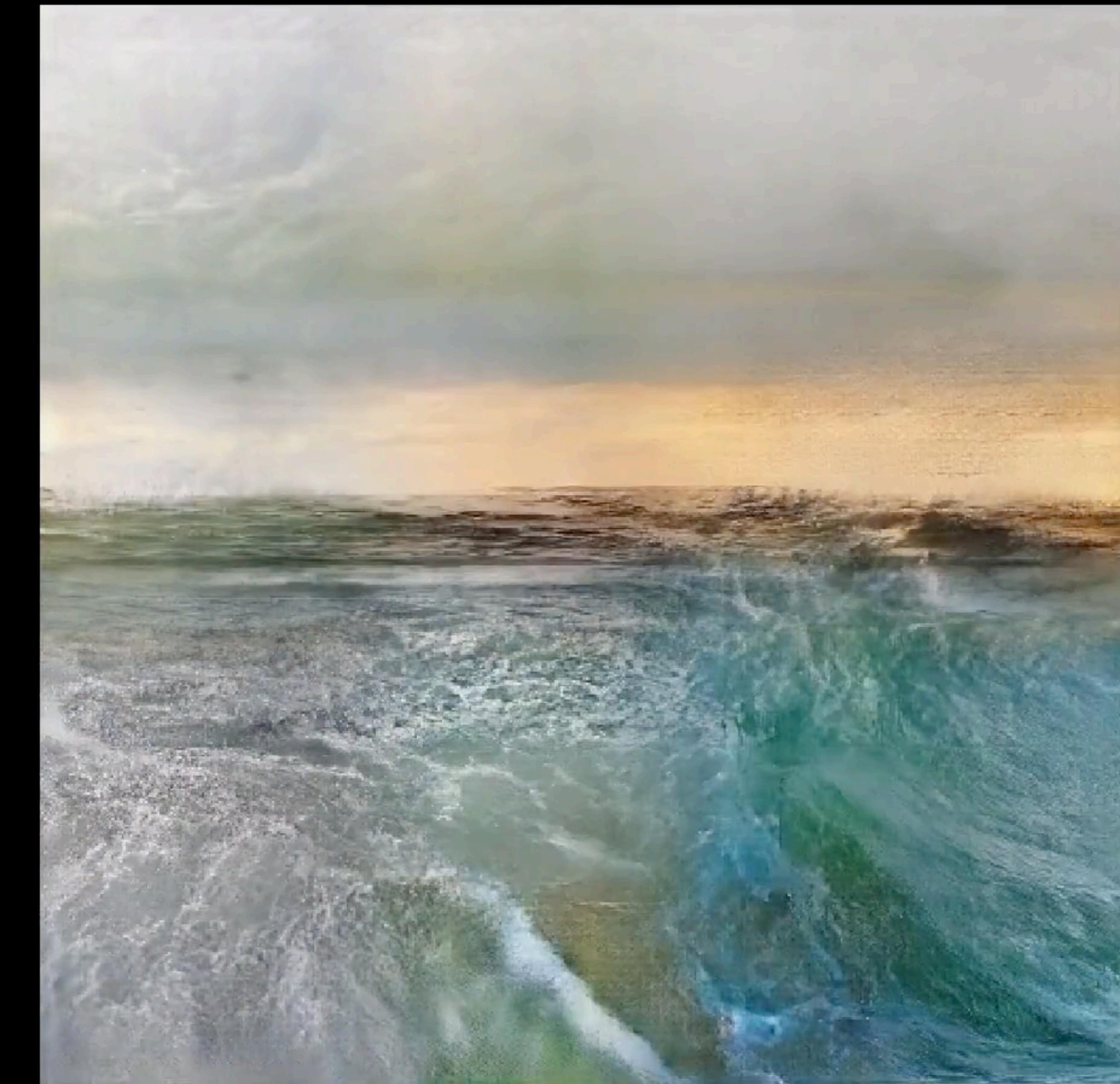
Why small-scale data?

- Generalisation is important for certain applications
- Big data approach is necessary to achieve generalisation
- These assumptions may be different in generative AI

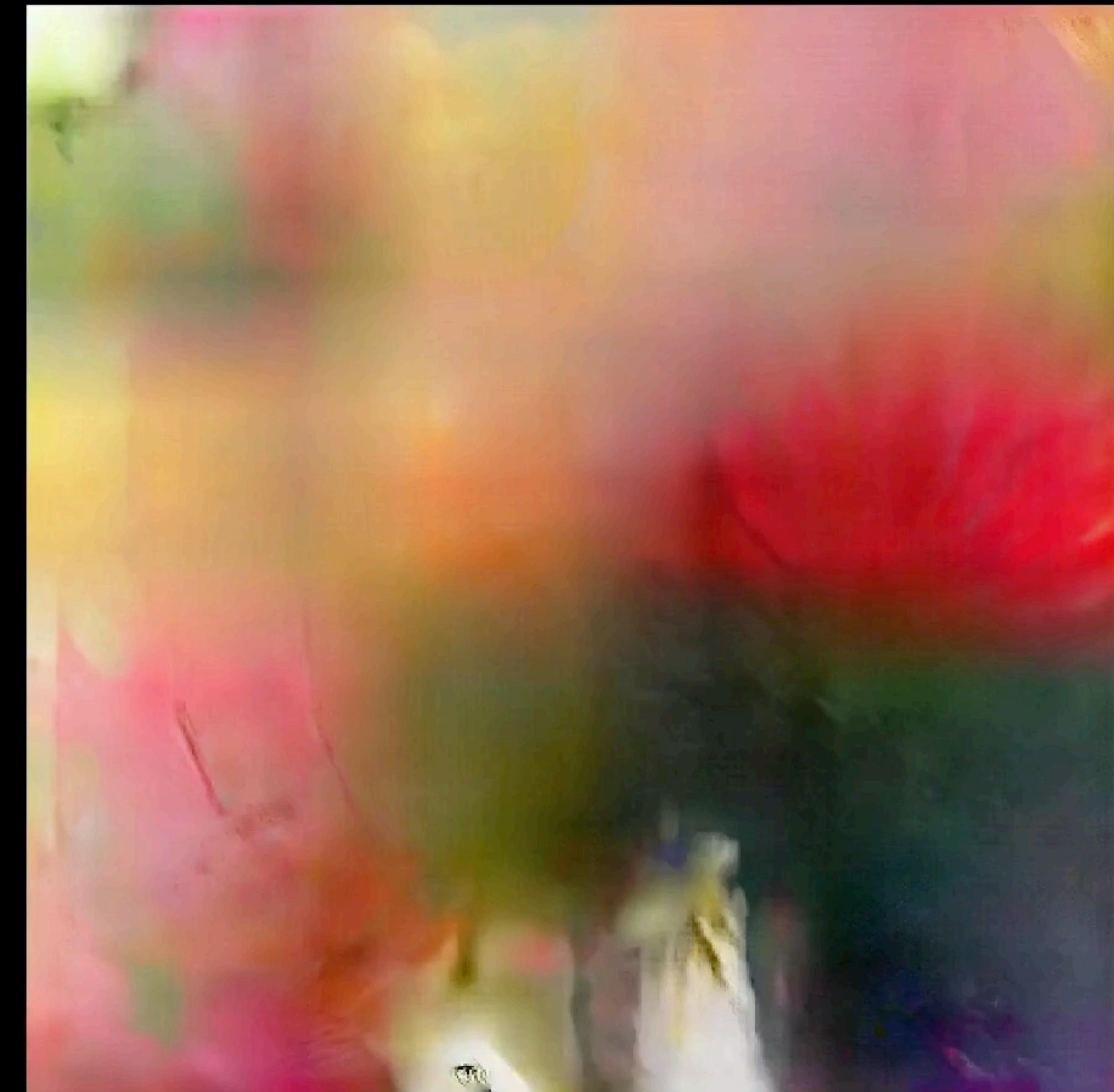
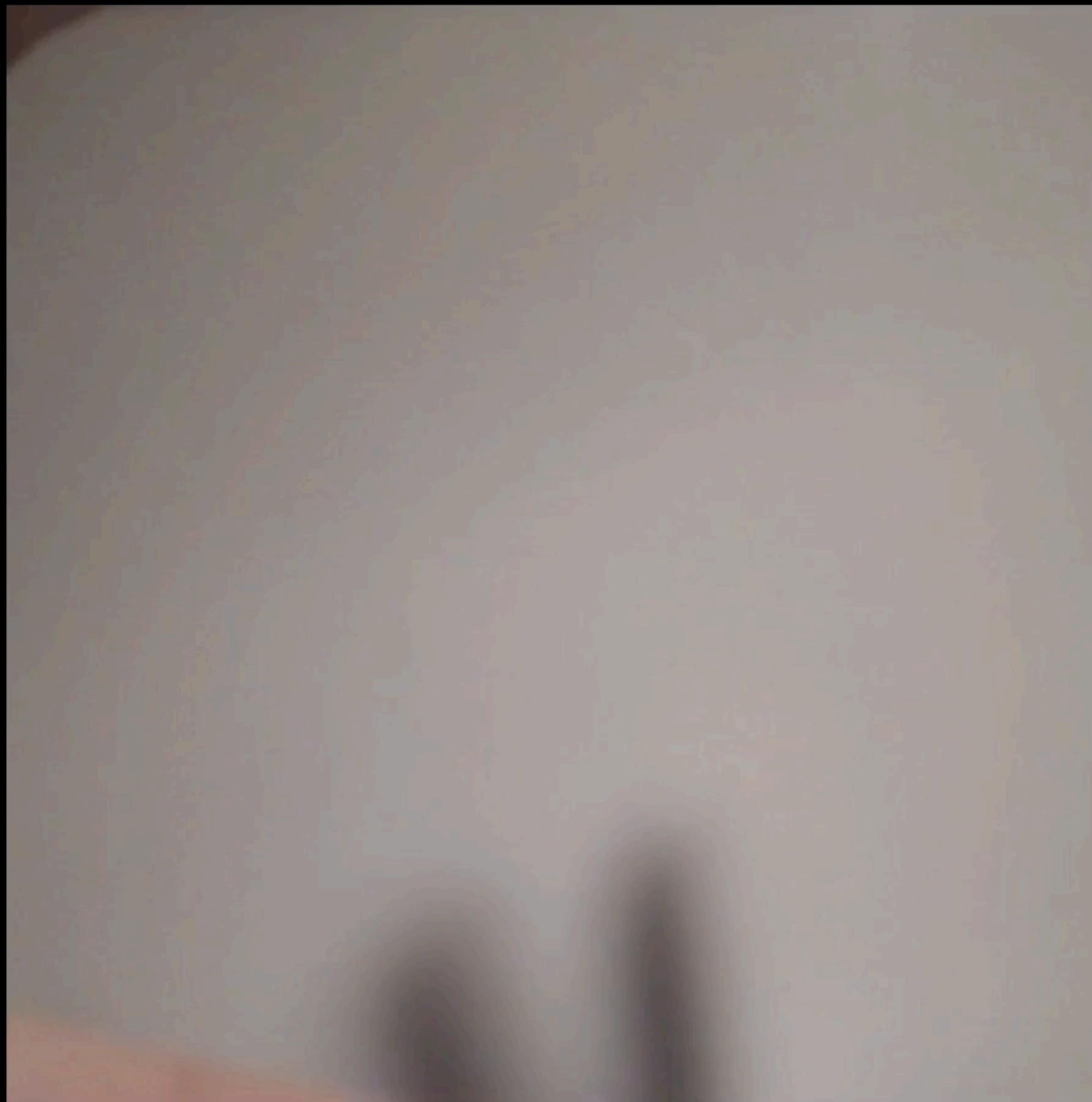
Generative AI goals

- Generative AI may have different goals and uses
- Systems
 - can be intended to be more niche
 - may be customised to the maker
 - potentially developed for one purpose
- “to replicate the limited aesthetic space of other artists’ albums.”





Memo Atken. 2017. Learning to see.



Memo Atken. 2017. Learning to see.

Small data and labour

- Small data can mean more effective human work
- Small changes have noticeable effect in the model
- Simpler architectures are trained faster and require less computing power
- Easier to iterate and steer the creative process



Vigliensoni et al. 2020. R-VAE | Clastic Music

What about bias and overfitting?

- Biases in small dataset may be desirable
- Can be better understood
- Small-scale data can facilitate critical engaging with biases
- Overfitting can be desirable to generate a recognizable output
- Generative AI systems not always need to do something new
- The goal can be to remake or remix within a limited scope



Ridler. 2018. The Fall of the House of Usher.



Ridler. 2018. The Fall of the House of Usher.

Takeaway

- In generative AI systems, small data has value
- Small data and models bring challenges, but also opportunities
- Reflect on HCI in creative contexts

Thank you!

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