

The Matter of Art:

Authenticity Criticism in the Humanities

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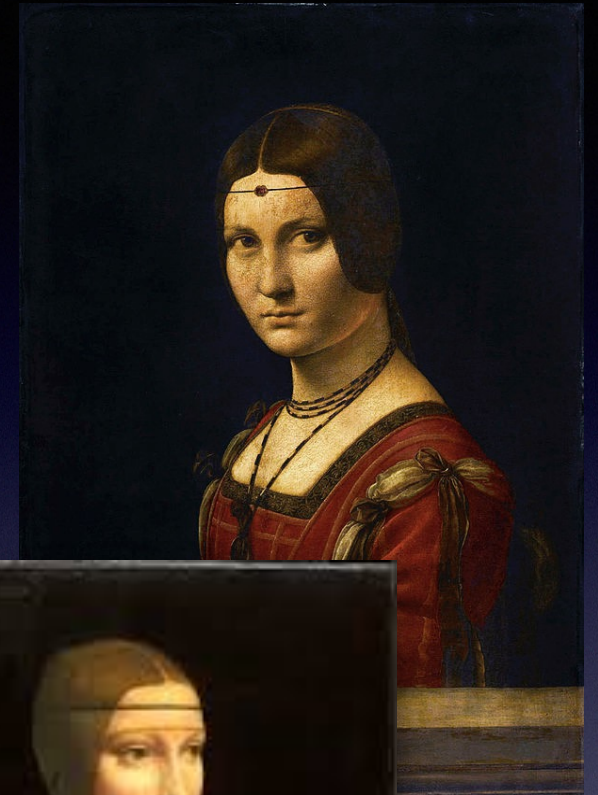
Authentication

- Stylistics ~ authentication
 - authentic vs (fake vs misattributed)
- Problem across the Humanities
 - learn from / teach other fields
- Focus:
 - Art History (pictorial, visual arts)
 - “Authorship” authentication



Difference

- Hard to compare because of “materiality”:
 - a late copy of Shakespeare can still be “real”
 - a copy of a Picasso, however perfect, cannot
- Art historians always work with “autographs”
 - Prime importance of the original “carrier”
 - Emphasis on materiality
 - Physical, Chemical analysis (e.g. ink, cloth, ...)
 - cf. Pollock’s polar bear

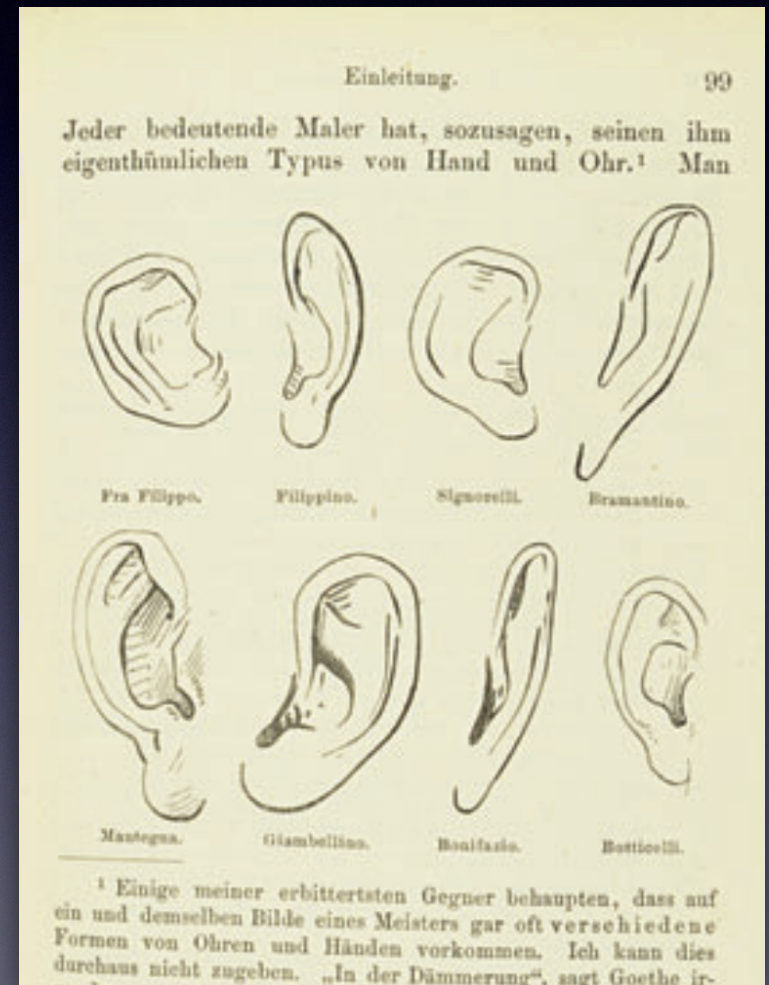


Connoisseurship

- Authentication still primarily expert-driven
 - art-market professionals: dealers, curators, art historians, ...
- All the problems that “we” react to, knowledge:
 - dies with the experts
 - is too implicit to be shared
 - is barely replicable (cf. inter-subjectivity)
- Huge economic potential
 - Much more explicit legal system than for textual authorship
 - Experts do not give up control?

“Stylistic” analysis

- Morphological, visual inspection
- Pioneered by Giovanni Morelli (late 19C)
 - *Grundformen*
 - Ears and hands >< “content”
- Surprisingly similar to ‘function words’
 - Interesting to trace in other fields
 - E.g. Minio-Paluello, “particle method”
- Hardly any quantification...



Huge potential

- Computational, digital studies (surprisingly) scarce, despite expert dominance
- Authentication-in-Art conference
- Apart from scattered small-scale studies, mainly canon (e.g. Van Gogh)
- Despite huge potential
- Number of extremely valuable studies using Machine Learning

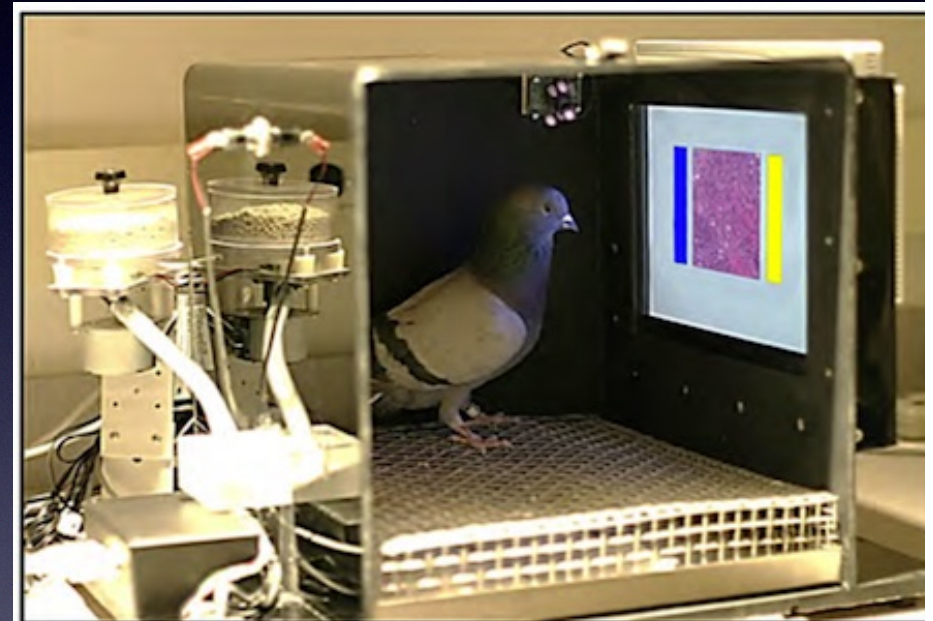
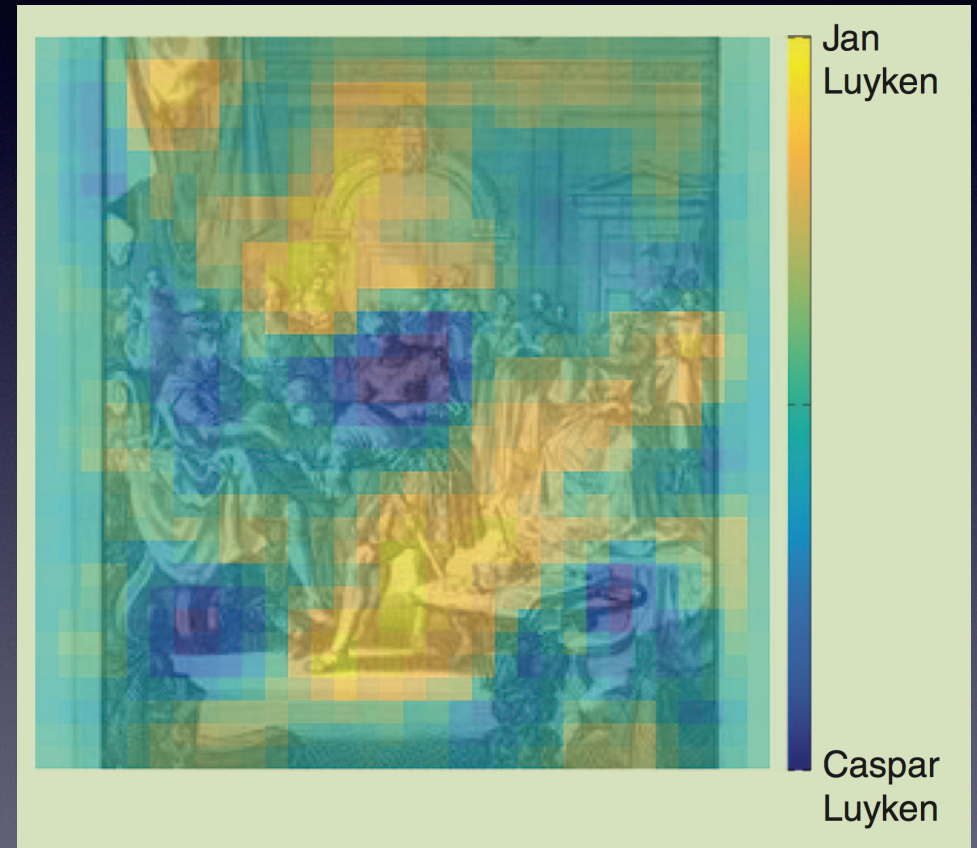


Fig 1. The pigeons' training environment. The operant conditioning chamber, pellet dispenser, and a touch-sensitive screen upon which the medical image (blue and yellow rectangles) were presented.

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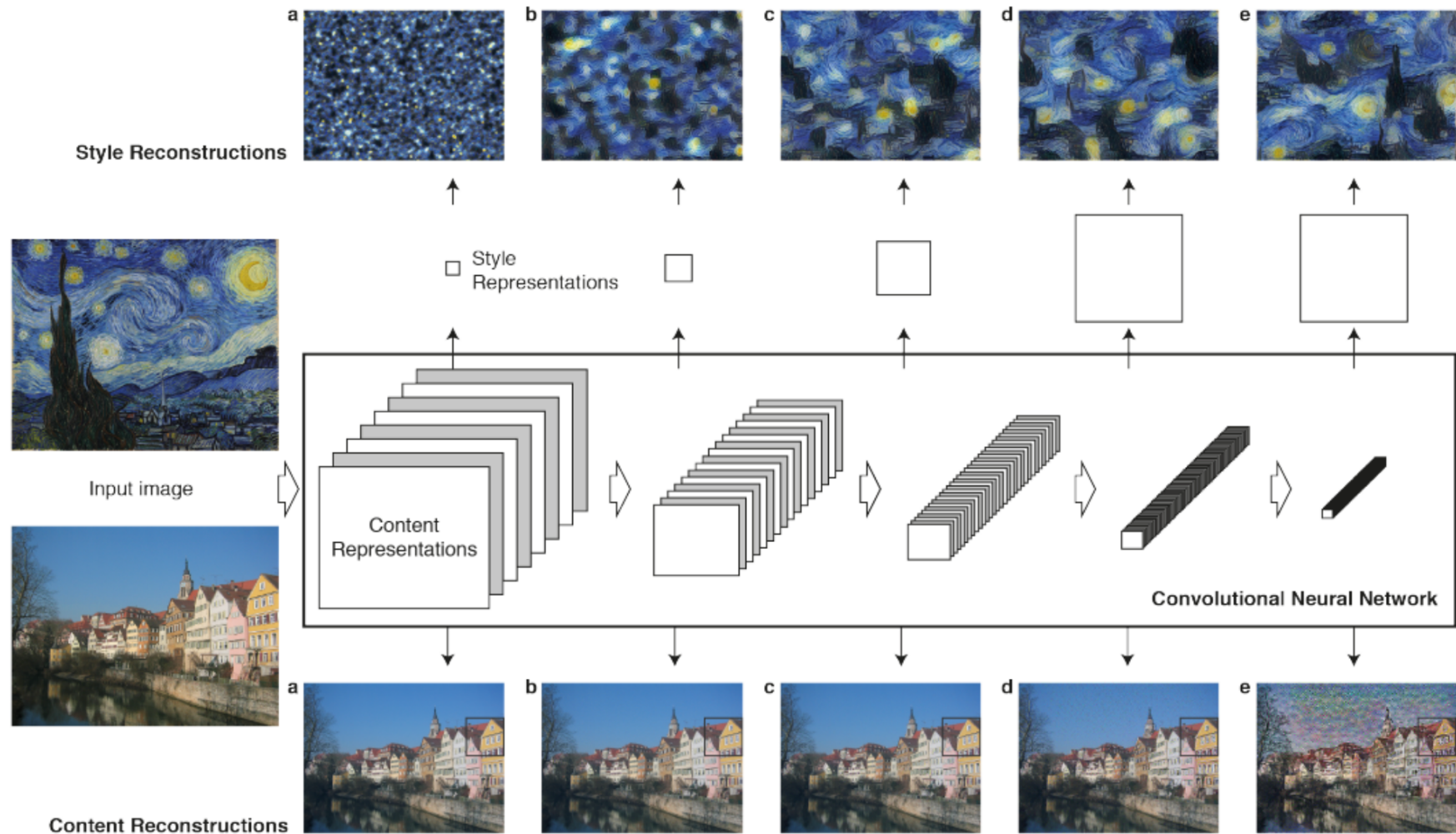
Rijksmuseum dataset

- PigeoNET
- Huge advances in Computer Vision
- Promising attribution results using data-driven method
- Even differentiate collaborating painters within painting
- “Rolling Stylometry” in 2D!



Neural Style Transfer

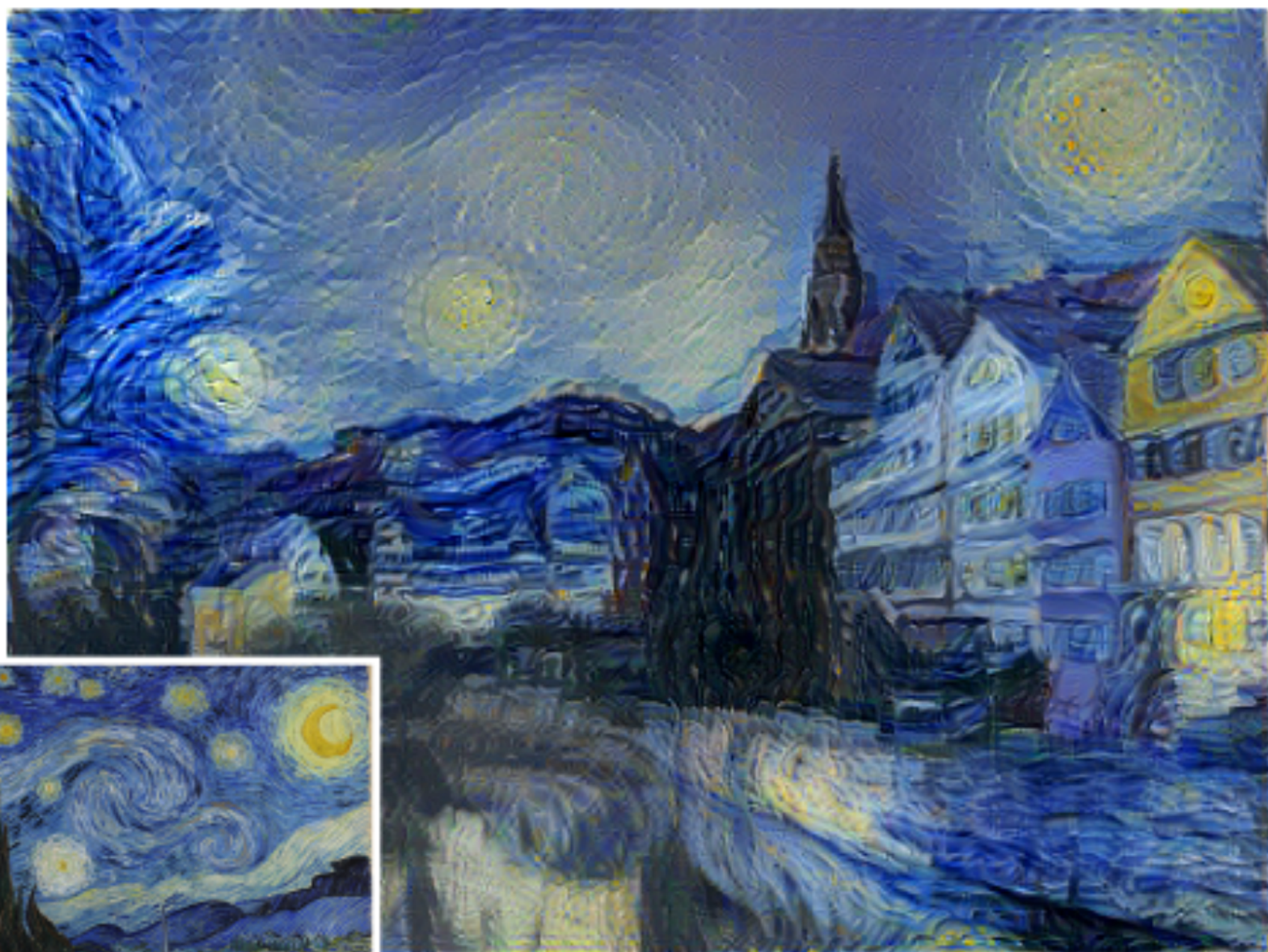
Superimpose style of painting onto another ('AI Photoshop filter')



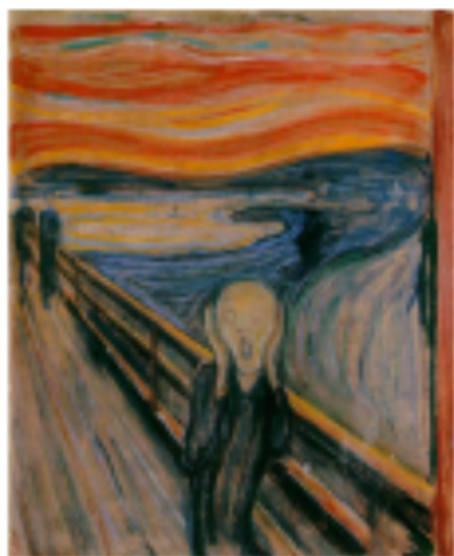
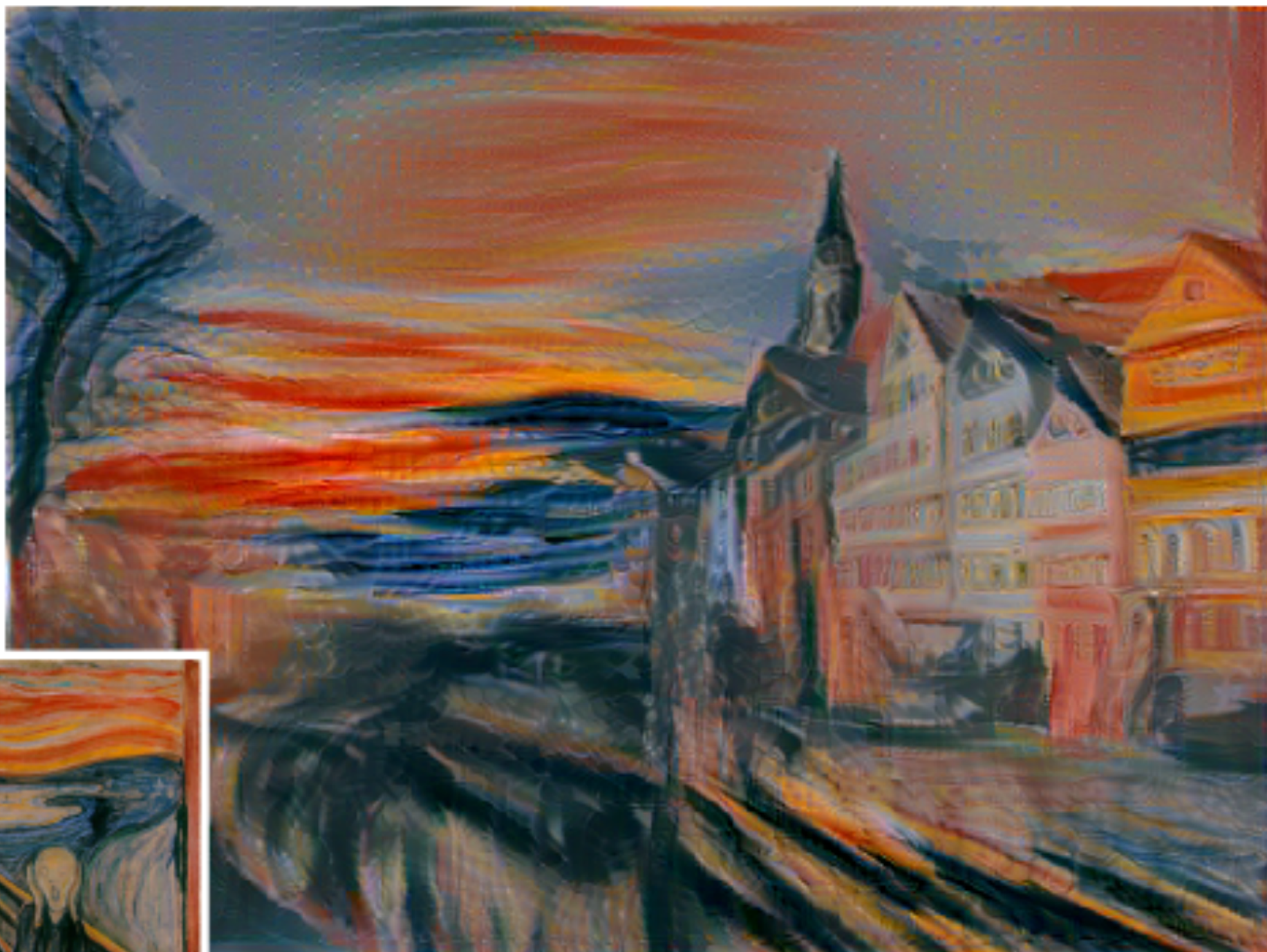
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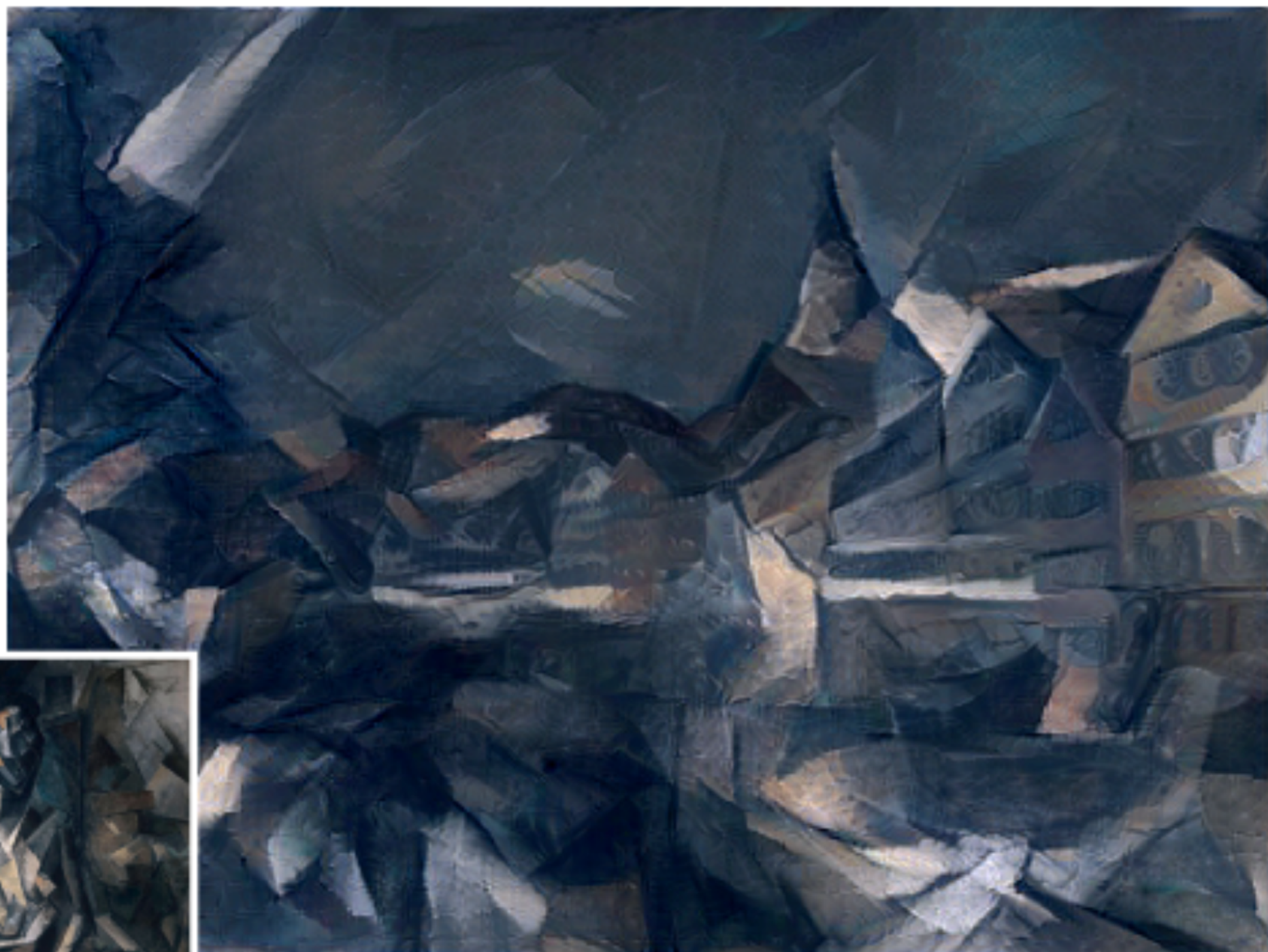
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Conclusions

- As we inaugurate this SIG, good to keep looking across the borders:
 - Authentication: generic problem, societal & economic relevance
 - Learn from each other's vocabulary
 - Learn to define and explain/visualize styles
- Art history:
 - Interesting parallels (that call for modesty)
 - Computer less 'institutionalized'? (pad ourselves on the chest?)
 - Neural Style Transfer for literary authors?

Selected references

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