On “Quantification of artistic style through sparse coding analysis in the drawings of Pieter Bruegel the Elder” by Hughes, Graham and Rockmore
Purpose

• The authors have devised a way to apply “sparse coding” techniques to the “authentication” of works of art

• What is this method?

• Why does it matter – what is it for?
The Death of Chatterton (1856)
Henry Wallis
The singular aura of a work of art is confronted today by two challenges:

**Mechanical Reproducibility**
- Increases number of editions
- Incidentally challenges “authenticity”
- Directly challenges aura
- At once represents greater commodifiability and democratization of images

**Forgery**
- Increases number of editions
- Directly challenges “authenticity”
- Incidentally challenges aura
- Criminalized
Style that can be measured

• **Stylometry**
  – “quantifiable”
  – “objective”
  – “new”
  – “in line with accepted art historical findings”

• In contrast to, and augmentation of, “qualitative” authentication
Sparse coding

• Designed for vision research
• “Appropriate for distinguishing the styles of different artists”
• Distinguishing “secure” drawings by “great” Flemish artist Bruegel from imitations
Method - prep

• The Met scanned actual paintings at a rate of 1 pixel = equivalent area
• Images then translated into greyscale
• AKA *creation* of digital informatic code out of a physical object – first reduction
• **Wikipedia**: Given a potentially large set of input patterns, sparse coding algorithms attempt to automatically find a small number of representative patterns which, when combined in the right proportions, reproduce the original input patterns. **The sparse coding for the input then consists of those representative patterns.** For example, the very large set of English sentences can be encoded by a small number of symbols (i.e. letters, numbers, punctuation, and spaces) combined in a particular order for a particular sentence, and so a sparse coding for English would be those symbols.

    – Second reduction
• **Stanford**: “we define sparsity as having few non-zero components or having few components not close to zero”

• **Kurtosis** – normative statistical/probability measure of spikes in a graph
Major claim

• Superior compared with other stylometric methods
• Consistent; best used to augment other methods
What is at stake?

• “Some exposed forgers have later sold their reproductions honestly, by attributing them as copies, and some have actually gained enough notoriety to become famous in their own right. Forgeries painted by the late Elmyr de Hory, featured in the film *F for Fake* directed by Orson Welles, have become so valuable that forged de Horys have appeared on the market.”
A stake is a measure of territory

• The merit, the worth of a work of art (including forgeries) thus by definition can not be in question
• Exchange value, price; art as commodity
• Authorship, authenticity
• “Genius”
  – Association with genius
    • Taste as distinction (Bordeiu)
    • Conspicuous consumption (Veblen)
    • Borrowed glory for bourgeois merchants and aristocrats then and today
Oil paint as technics of reification

• European art was already a commodity
  – Commissioned by the rich, for their homes or legacy
  – Aesthetics (realism) accorded with and reaffirmed the sensibilities and perspectives of that class
    • Religious scenes
    • Pastoral scenes
    • Portraits
  – Collected by the rich
The opposite of conclusion

• Art as commodity
  – Whole tradition of European oil painting
  – Author, individual, genius, and authentication

• Art as information
  – “Reducible,” “objective,” “quantifiable”
  – Epistemological, ontological claim
  – “Information” has/is a politics, is ideological

• Reification, code as fetish, info & IP