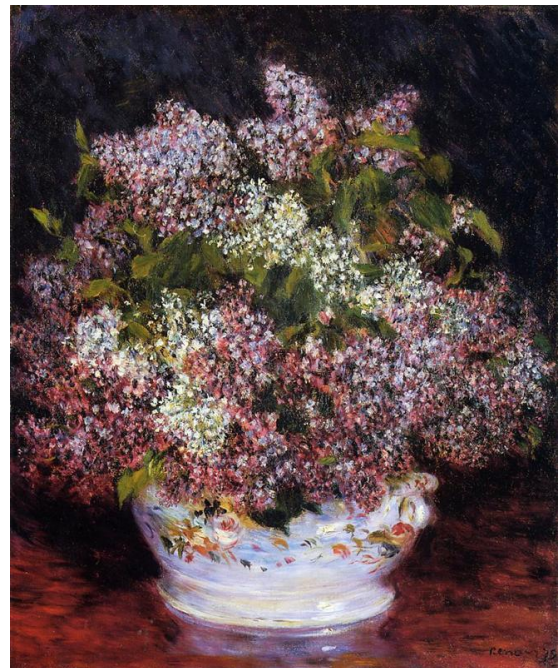# Artist Identification

Problem description:

Artist identification is traditionally performed by art historians and curators who have expertise and familiarity with different artists and styles of art. This is a complex and interesting problem for computers because identifying an artist does not just require object or face detection; artists can paint a wide variety of objects and scenes. Additionally, many artists from the same time period will have similar styles, and some such as Pierre Auguste Renior (see Figure 1) have painted in multiple styles and changed their style over time.

(a) Dance in the country (1883)   (b) Bouquet of flowers (1878)

Figure 1. Both of these paintings were created by Renior, but they have different styles and content

Problem formulation:

The task in hand is to teach a machine to perform artist identification and provide us a simple answer (yes/no) to the question: "Is this painting the work of this artist?"
Lets say that we'll only focus on "impressionism" and train our algorithm for that period /style where artists such as Manet, Degas, Renior and others created their masterpieces. Paintings of different artists, different periods and styles can be found and downloaded at www.wikiart.org.

Method:

The idea is to benefit from neural networks (deep networks) and train them on the work of different artists. Remember that we only limit ourselves to "impressionism". Furthermore, lets only teach our algorithm to learn the style of 4 artists: "Manet, Degas, Renior and Monet".

Question:

1) Who has painted the following three paintings?
2) Explain your strategy and your solution to this problem.