**Re: Painterly Rendering for Video and Interaction**

Attaining a realistic level of unreality takes a significant amount of work. Realistic representations are simple to produce given a source because less decisions need to be made. There may be a most efficient way to represent an image or perhaps video, yet the style of the representation is not in question.

Humans are naturally inexact and consequently many human actions are based on the difficult to quantify notions of feeling and emotion. Replicating an angry stroke that characterizes an important section of a work is difficult to automate. The brush would splay out from the pressure, forming a thicker stroke. Yet in a person’s face or the blossoms on a tree much attention must be paid to the minute details that animate the two dimensional form.

With video, the task of painterly rendering becomes even more complex. Additional decisions need to be made with respect to the method of animation. A lower frame rate would be reminiscent of old Disney cartoons, and may seem more artistic than a continuous flow. Aside from framerate, the optical flow must also be considered. In order to save on computation cost, lines that don’t need to be re-drawn aren’t. The next frame is simply drawn over the previous. Yet this leads to a sort of visual lag that may not be desirable. To correct for this, it is necessary to translate the ‘painted’ strokes in a believable fashion.

Painterly representation of video is beautiful in its own right. It has been used in commercials by Schwab with quite a dramatic effect. Eyballnyc has a few fascinating examples of this format in their portfolio. It is reminiscent of the cel-shading animation technique, yet does not retain the same level of uniformity. Painterly rendering draws outside the lines, so to speak.

**Re: Telemurals**

Relevant analysis remains from an earlier critique:

*Telemurals* provides an excellent means of communication between physically separate spaces. It provides a significantly more attractive interface than the *Microsoft Virtual Kitchen* for several reasons. Foremost is its playful approach to interaction. As noted, Microsoft’s *Kitchen* elicits a sense of loss of privacy. An attractive consequence of the audio-only communication by telephone is the ability to take a call while wearing boxers. Abstracting users’ representations serves as both a buffer and an invitation to explore. Also mentioned is the distraction introduced by a news broadcast displayed concurrently. While abstraction called attention to the interaction itself, the broadcast claimed this attention instead. As with fraternity members on a Friday night trading words while scanning the bar over each other’s shoulder, meaningful conversation takes a back seat. Social constraints associated with the kitchens at Microsoft also helped sink the project. Employees may have expected to clear their minds while making lunch or a cup of tea; finding themselves on camera, they may not have felt comfortable enough to drop their guard. Located in two dormitories and operational during predetermined study breaks, *Telemurals* stood to gain from students’ expectations of socialization. What’s in a place?

Details from the more extensive description of this project provide additional valuable insight. The idea that the purpose behind *Telemurals* was socialization rather than task completion supports earlier analysis. The idea that the norms present in a dormitory environment differ greatly from those in a work environment also retains its weight.

Using non-realistic representations of participants is perhaps the most significant aspect of the project. That the most obfuscation and ‘painterly’ rendering occurred when no active conversation was
taking place contributed a sense of user-controlled privacy to the exhibit. The ability to choose one’s own level of activity and interaction is wonderful, seeing as most people are a bit slow to warm up.

**Re: Interactive Artistic Rendering**

Few things are as stunning as an arbitrarily colored fractal. A fractal colored on a human’s whim, perhaps, surpasses this pseudo-randomness. Randomness from a computer gives insight into some sequence of numbers, yet randomness from a human gives insight into that person. Dreams are a mish-mash of ideas, thoughts - and if you believe Freud - repressed desires. Art is a form of expression that almost (but not quite) reifies dreams. Without the meddling consciousness, there might be a closer correspondence.

*Graftals* draw on fractals, snowflakes and all that recurses and is wonderful. The most obvious application for this construct is the simulation of fur or leaves. Nature is implicitly recursive to some degree, and humans will consequently expect some amount of symmetry in representations of these objects. The trick is to recognize that exact symmetry is unnerving because it is rarely found. For this reason, creating stylized Dr. Seuss trees and fluffy (yet pointy) bunnies seems more artistic than attempting to reproduce a maple.

Proper shading and lighting of a simple ball is perhaps the first thing anyone learns in an introductory art course. It is fascinating to see the way many short strokes of the same width at different angles can give the impression of a charcoal drawing. Since what humans perceive as light is reflected from different layers of the source material, the presence or absence of a common background greatly alters the perception of a shape. The way the mind interprets size and scale is also tricky to factor in when performing transformations of pre-drawn objects.

Imperfect perfection is the goal, as it well should be. Disney, Dr. Seuss and many other popular animators and artists convey essence and emotion in this manner. Actors learn to emphasize the relevant signals in order to play a convincing role. Children’s toys are large and colorful for a reason; the human mind cares more about essence than exactness. If this weren’t the case, con men (people?) would be out of a job for good. But then again, so would many of the great artists in the world. And that would be sad.