

## Some thoughts on the differences between new media and print or cinema, in response to Lev Manovich's list of five principles for characterizing new media

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First I will discuss Manovich's five principles for categorizing new media as a medium form in relation to a "zee gedicht" game I made in 2002.

Manovich would not use this term, his term would be "interface",<sup>1</sup> but I choose to use the word 'medium' here because I think it is a clearer word for discussing the differences in medium characteristics.



**Figure 1:** I have just pulled one sentence out of the sea and placed it by pressing on the spacebar. You can play this game yourself at: [www.sonjavank.com/design/games/hbb\\_zee.htm](http://www.sonjavank.com/design/games/hbb_zee.htm). You need Flash player 6 to play it.

### How this works:

In order to make a poem, you need to move and click the mouse over some words. Then the line of from the poem by Frank Eerhaart will move and remain attached to where the mouse is located until you press the spacebar. Lines of words can be placed in any order or location on the right-hand side. The poem you make can be printed or you can start over with a new arrangement of lines.

See below for screenshots of two arrangements:



Figures 2 + 3: Two variations of the poem

Manovich's first principle is "Numerical Representation". By this he means that because the material is digital, it can be described in a mathematical function. This also means that the data is discrete, that is it is made up of units (at a particular resolution or sample rate). In the case of this game, the speed of play depends on the speed of your computer processor, but since I made it to run smoothly on the slowest of school computers in 2002, the speed is likely to be the similar for all computers. Unlike some old games, it doesn't run faster than intended on faster processors, because the speed of interaction depends on the user her/himself. The game needs a flash player to play it, which could be compared to needing 3-D glasses in a 3-D cinema. However, there is a distinction: without a computer, there's no game. Without the glasses, you might not see the film, but it would still run.

Because the data here is discrete, it is possible that it could run at a slower speed whereas with continuous media such as a book or a painting there is one entity. Manovich's <sup>2</sup> discussion about why there are discrete units in new media leads him to relate this to the development of technological standards. I agree, after all computers operate by manipulating discrete units, but I would add that this is also the case for books, which tend to have a standard size and especially in film, where there are film formats and limits to the length of a feature film. The latter is primarily due to marketing issues which then influence the technological possibilities.

Similarly, in making this game, I had to choose a programme (an older version of the flash player) which would be already available on old school computers and I had to design it so it was very light in bandwidth for the same reasons. Because this game was made for 7 to 9 years olds, the instructions had to be simple and since I decided to use the spacebar as a way of placing the lines, the instructions for this needed to remain visible. These decisions relate to the marketing (or to use the web term: user accessibility).

Manovich's second principle is "Modularity". To illustrate this I will turn to another interactive thing I've made, because the game above was made as a one-unit item.

In modular fashion all animations of text and drawings, sound and video are independent units imported into the mother file of the work illustrated on the right (fig. 4).

Here they load and unload in response to where the mouse is located, so for the user it seems as if moving the mouse creates the sounds, videos and animations.

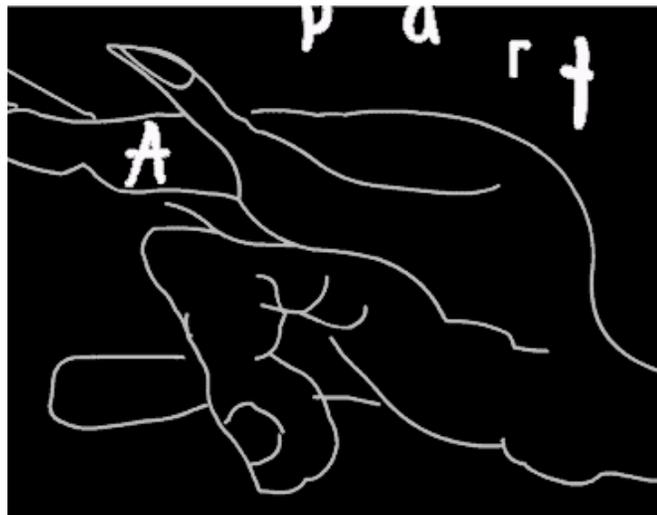


Figure 4: still from *Breathing In - E hau ana i roto*  
[www.sonjavank.com/flash/breath](http://www.sonjavank.com/flash/breath)

While I agree that Manovich's third principle "Automation" is an important aspect of anything made with a computer, it is not necessary.

For this particular work (see the screenshots on the right and below), in terms of the possibilities for the display of the sounds, videos or animations, I did not apply any automatic techniques, because it was important that each combination of sound and image contributed aesthetically to the narrative.

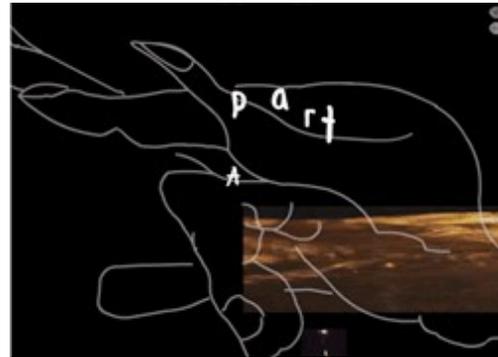
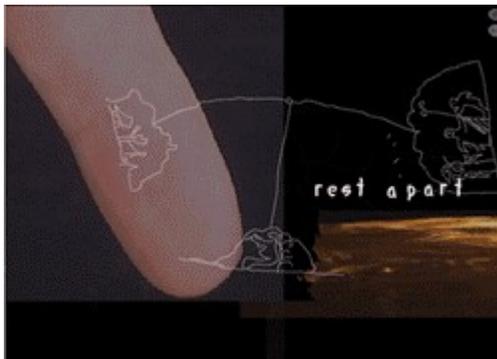
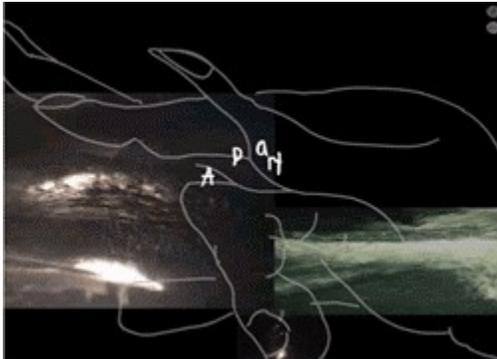


Figure 5: stills from **Breathing In - E hau ana i roto**

[www.sonjavank.com/flash/breath](http://www.sonjavank.com/flash/breath)

Moving the mouse around and clicking affects the animations (drawings + texts), videos and sounds that appear and disappear.



So I used what Manovich calls "low-level" automation, such as filters and codecs (for compressing video size) in the video clips.

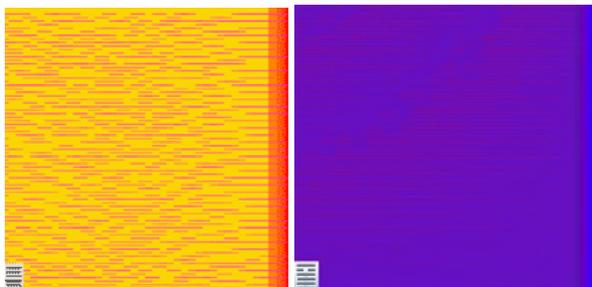


Figure 6: two screenshots from:  
**The experience of change**  
by Jiang Yiwei + Sonja van Kerkhoff  
[www.sonjavank.com/flash/luminous/](http://www.sonjavank.com/flash/luminous/)

However another work, "The experience of Change" would fit Manovich's definition of 'automation' (see the two screenshots to the left, figure 6).

This work consists of 64 possible colour combinations built up in 8 layers in response to 6 clicks of the mouse. The animation of tiny lines is generated on the fly and like a ripple on the surface of the water, is never exactly the same.

So all visuals and sound depend on some conditions of randomness that have been set mathematically.

This leads on to Manovich's fourth principle for characterizing new media: "*Variability*".

In the first two works shown here, there is variability, but it depends on the user. In the poem application, the user could make identical poem arrangements. In the second work, it is possible to work out how to trigger the videos, sounds and text. However in the final example, a user is not able to affect the outcome and although there is a limited set of colour field possibilities, the user cannot control this, and the animation that shimmers above it is infinite and continuous.

Manovich's final principle for characterizing new media is "*Cultural transcoding*", which Manovich says is "the most substantial consequence of the computerization of media" because "computerization turns media into computer data". 3

All the examples above, because all the components are digital would fit within Manovich's categories for defining new media, and I would argue that these examples are not translations from other media because it could be argued that, the poem-maker for example, is a new work, not a translation of a poem or book media. But a game for children to make a poem with. Likewise with my second example, the work exists as a combination of sound, video and animation which seem to respond to mouse movement, it is not film or text translated into digital media.

I agree with Manovich that the ubiquity of computers do have a significant affect on how we code contemporary culture. A search machine or wikipedia have changed how we can access knowledge for example. And dvds and dvd recorders have changed the way we can watch film.

On page 66 in chapter two of Manovich's book, he states that the "content-interface" dichotomy could imply that content is independent of its medium. I would disagree here, because even if content can be expressed in various forms, such as through the multiple graphs he illustrates further on, any expression of content demands some medium to be communicated. I do not think that the possibility of various equally important visual representations, for example, means that content is independent of its medium, all this implies is that a narrative or any type of information can be feed through various media, some of which, in a specific instance, may be equally satisfactory.

**Footnotes:**

1. In his second chapter "The interface", he argues that "the interface... creates its unique materiality and a unique user experience." (p.67) While I understand that in using the word "interface" he is stressing the active role of the user, my rationale for using the word 'medium' is that for any medium to communicate, some user participation is always necessary. Later he uses the term "cultural interfaces" to describe interfaces used by stand-alone hypermedia..." and in this essay, I prefer the term, new media here.(p. 68)
2. See pages 29-30
3. Page 45