

#1 our culture is undergoing computerization- we all know that, but all new media is composed of digital code. It can be described mathematically. Zeros and ones. Media becomes programmable. Removing noise from a photograph.

The Internet is basically computers communicating with other computers. Zeros and ones and backslashes.

#2 Discrete - the standardization of objects and methods. Very important in the evolution of New Media. The Internet has evolved to the state it is today through standardization of emails and web pages.

#3 Modularity –a piece of digital media composed of different elements is modular. When one piece is missing the whole thing doesn't work, the WWW is modular, different elements are built up other elements

#4 Automation- Take #1 and #3 and you got automation. Automation leads to diffusion and ease of use. How the Internet went from informational to useful.

#5 Variability- is the INFINITE possibilities that a piece of New Media can have. Anyone who has done any digital video or audio editing or even digital document knows about possibilities, and well incorporating #1 and #3, adding numerical value to a modular piece can result in INFINITE possibilities. I'm not sure there is another service of information as variable as the Internet.

Author Lev Manovich defines five important principles of "New Media":

1. Numerical Representation: Simply - converting data into a numerical representation is called digitization, which requires sampling and quantization. Author shows new media follows individual customization rather than mass standardization.

2. Modularity: Now media elements – sounds, images, shapes or behaviors are represented as collections of discrete samples (pixels, characters, scripts). WWW is also modular. Numerous web pages containing separate media elements

Ex: movie clips/images can be moved around in Director

3. Automation: Manovich shows with the numerical coding (pinc 1) and modulation (princ 2) allow for the automation of many operations. Examples: 3-d graphics, word processing, auto correction in Photoshop – all low-level examples. Other examples are A.I. and "bots" in chat rooms.

4. Variability: The new media object is not fixed. Can exist in infinite versions. We are moving toward an "on demand" ideology as opposed to "just in time".

5. Transcoding: The principal – computerized media still displays structural organization images, text files etc., but from another point of view, structure now follows the conventions of the computers organization of data. Ex: lists, records, arrays. Now enters into a dialogue with other computer files. Data points: file size, type, compression format. Dimensions are computer not human.