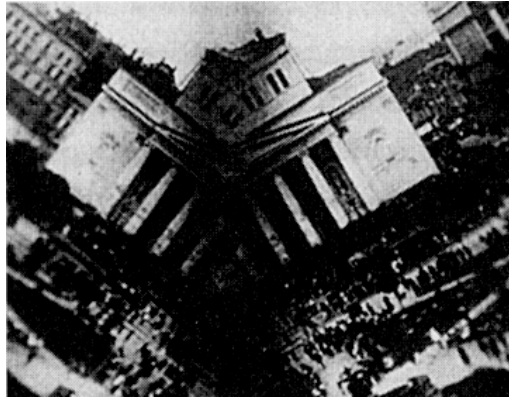


Menus, Filters, Plug-ins



The Logic of Selection

Viewpoint Datalabs International is selling thousands of 3-D geometric models widely used by computer animators and designers. Its catalog describes the models as follows: "VP4370: Man, Extra Low Resolution. VP4369: Man, Low Resolution. VP475 2: Man, Muscular in Shorts and Tennis Shoe. VPSZOO. Man, w/Beard, Boxer Shorts . . ." ⁶ Adobe Photoshop 5.0 comes with more than one hundred filters that allow the user to modify an image in numerous ways; After Effects 4.0, the standard for compositing moving images, is shipped with eighty effects plug-ins; thousands more are available from third parties. ⁷ Macromedia Director 7 comes with an extensive library of "behaviors"—ready-to-use pieces of computer code. ⁸ Softimage|3D (v3.8), the leading 3-D modeling and animation software, is shipped with over four hundred textures that can be applied to 3-D objects. ⁹ QuickTime 4 from Apple, a format for digital video, comes with fifteen built-in filters and thirteen built-in video transitions. ¹⁰ The Geocities Website, which pioneered the concept of hosting users' Web sites for free in exchange for placing ad banners on users' pages, gives users access to a collection of over forty thousand clip art images for customizing their sites. ¹¹ Index Stock Imagery offers 375,000 stock photos available for use in Web banner ads. ¹² Microsoft Word 97 Web Page Wizard allows the user to create a simple Web by selecting from eight predetermined styles described by such terms as "Elegant," "Festive," and "Professional." Microsoft Chat 2.1 asks the user to specify her avatar (a character or graphic icon representing a user in a virtual world) by choosing among twelve built-in cartoon characters. During the online session, the user can further customize the selected character by interpolating between eight values that represent eight fundamental emotions as defined by Microsoft programmers.

These examples illustrate a new logic of computer culture. New media objects are rarely created completely from scratch; usually they are assembled from ready-made

parts. Put differently, in computer culture, authentic creation has been replaced by selection from a menu. In the process of creating a new media object, the designer selects from libraries of 3-D models and texture maps, sounds and behaviors, background images and buttons, filters, and transitions. Every authoring and editing software comes with such libraries. In addition, both software manufacturers and third parties sell separate collections that work as “plug-ins”; that is, they appear as additional commands and ready-to-use media elements under the software's menus. The Web provides a further source of plug-ins and media elements, with numerous collections available for free.

New media users are similarly asked to select from predefined menus of choices when using software to create documents or access various Internet services. Here are a few examples: selecting a predefined style when creating a Web page in Microsoft Word or similar program, selecting one of the “Auto-Layouts” when creating a slide in PowerPoint, selecting a predetermined avatar upon entering a multi-user virtual world such as Palace, selecting a predetermined viewpoint when navigating a VRMIL world.

All in all, selecting from a library or menu of predefined elements or choices is a key operation for both professional producers of new media and end users. This operation makes the production process more efficient for professionals, and it makes end users feel that they are not just consumers but “authors” creating a new media object or experience. What are the historical origins of this new cultural logic? How can we describe theoretically the particular dynamics of standardization and invention that comes with it? Is the model of authorship put forward specific to new media or can we already find it at work in old media?

Ernst Gombrich and Roland Barthes, among others, have critiqued the romantic ideal of the artist creating totally from scratch, pulling images directly from his imagination, or inventing new ways to see the world all on his own.¹³ According to Gombrich, the realist artist can only represent nature by relying on already established “representational schemes”; the history of illusion in art involves slow and subtle modifications of these schemes over many generations of artists. In his famous essay “The Death of the Author,” Barthes offers an even more radical criticism of the idea of the author as solitary inventor alone responsible for the work's content. As Barthes puts it, “The Text is a tissue of quotations drawn from the innumerable centers of culture”¹⁴ Even though a modern artist may only be reproducing, or, at best, combining preexisting texts, idioms, and schemas in new ways, the actual material process of art making, nevertheless, supports the romantic ideal. An artist operates like God creating the Universe—she starts with an empty canvas or a blank page. Gradually filling in the details, she brings a new world into existence.

Such a process, manual and painstakingly slow, was appropriate for the age of pre-industrial artisan culture. In the twentieth century, as the rest of the culture moved to mass production and automation, literally becoming a “culture industry” (Theodor Adorno), the fine arts, however, continued to insist on its artisan model. Only in the

1910s when some artists began to assemble collages and montages from already existing cultural “parts” did the industrial method of production enter the realm of art.

Photomontage became the most “pure” expression of this new method. By the early 1920s, photomontage practitioners had already created (or rather, constructed) some of the most remarkable images of modern art such as *Cut with the Cake-Knife* (Hannah I-loch, 1919), *Metropolis* (Paul Citroen, 1923), *The Electrification of Whole Country* (Gustav Klutssis, 1920), and *Tatlin at Home* (Raoul Hausmann, 1920), to mention just a few examples. Although photomontage became an established practice of Dadaists, Surrealists, and Constructivists in the 1920s, and Pop artists in the 1960s, the creation from scratch, as exemplified by painting and drawing, nevertheless remained the main operation of modern art.

In contrast, electronic art from its very beginning was based on a new principle: modification of an already existing signal. The first electronic instrument designed in 1920 by the Russian scientist and musician Lev Theremin contained a generator producing a sine wave; the performer simply modified its frequency and amplitude.¹⁵ In the 1960s, video artists began to build video synthesizers based on the same principle. The artist was no longer a romantic genius generating a new world purely out of his imagination; he became a technician turning a knob here, pressing a switch there—an accessory to the machine.

Substitute a simple sine wave with a more complex signal (sounds, rhythms, melodies), add a whole bank of signal generators, and you have arrived at the modern music synthesizer, the first instrument that embodies the logic of all new media—selection from a menu of choices.

The first music synthesizers appeared in the 1950s, followed by video synthesizers in the 1960s, DVE in the late 1970s—the bank of effects used by video editors—and computer software in the eighties such as the 1984 MacDraw, which came with a repertoire of basic shapes. The process of art making has finally caught up with modern times. It has become synchronized with the rest of modern society, where everything from objects to people’s identities is assembled from ready-made parts. Whether assembling an outfit, decorating an apartment, choosing dishes from a restaurant menu, or choosing which interest group to join, the modern subject proceeds through life by selecting from numerous menus and catalogs of items. With electronic and digital media, art making similarly entails choosing from ready-made elements—textures and icons supplied by a paint programs, 3-D models that come with a 3-D modeling program, melodies and rhythms built into a music synthesis program.

While previously the great text of culture from which the artist created her own unique “tissue of quotations” was bubbling and shimmering somewhere below consciousness, now it has become externalized (and greatly reduced in the process)—2-D objects, 3-D models, textures, transitions, effects available as soon as the artist turns on the computer. The World Wide Web takes this process to the next level: it encourages the

creation of texts that consist entirely of pointers to other texts that are already on the Web. One does not have to add any original writing; it is enough to select from what already exists. Put differently, now anybody can become a creator by simply providing a new menu, that is, by making a new selection from the total corpus available.

The same logic applies to branching-type interactive new media objects. In a branching-type interactive program, the user, upon reaching a particular object, selects which branch to follow next by clicking a button, clicking on part of an image, or choosing from a menu. The visual result of making a choice is that either a whole screen or its part(s) change. A typical interactive program of the 1980s and early 1990s was self-contained, that is, it ran on a computer that was not networked. Designers of self-contained programs could, therefore, expect undivided attention from a user, and, accordingly, it was safe to change the whole screen after a user had made a selection. The effect was similar to turning pages in a book. The book metaphor was promoted by the first popular hypermedia authoring software—Apple's HyperCard (1987); a good example of its use can be found in *Myst* (Broderbund, 1993). *Myst* presents the player with still images that completely fill the screen. When the player clicks on the right or left parts of an image, it is replaced by another image. In the second half of the 1990s, as most interactive documents migrated to the Web where it is much easier to move from one site to another, it became important to 'give all pages of the site a common identity and also visually to display the page's position in relation to the site's branching-tree structure. Consequently, with the help of technologies such as HTML frames, Dynamic HTML, and Flash, interactive designers established a different convention. Now, parts of the screen, which typically contain the company logo, top-level menus, and the page's path, remain constant while other parts change dynamically. (Microsoft and Macromedia sites provide good examples of this new convention)¹⁶ Regardless of whether making a selection leads the user to a whole new screen or only changes part of it, the user still navigates through a branching structure consisting of predefined objects. Although more complex types of interactivity can be created by a computer program that controls and modifies the media object at runtime, the majority of interactive media uses fixed branching-tree structures.

It is often claimed that the user of a branching interactive program becomes its coauthor: By choosing a unique path through the elements of a work, she supposedly creates a new work. But it is also possible to see this process in a different way. If a complete work is the sum of all possible paths through its elements, then the user following a particular path accesses only a part of this whole. In other words, the user is activating only a part of the total work that already exists. Just as with the example of Web pages that consist of nothing but links to other pages, here the user does not add new objects to a corpus, but only selects a subset. This is a new type of authorship that corresponds neither to the premodern (before Romanticism) idea of minor modification to the tradition nor to the modern (nineteenth century and first half of the twentieth century)

idea of a creator-genius, revolting against it. It does, however, fit perfectly with the logic of advanced industrial and post-industrial societies, where almost every practical act involves choosing from some menu, catalog, or database. In fact, as I have already noted, new media is the best available expression of the logic of identity in these societies—choosing values from a number of predefined menus.

How can a modern subject escape from this logic? In a society saturated with brands and labels, people respond by adopting a minimalist aesthetic and a hard-to-identify clothing style. Writing about an empty loft as an expression of a minimalist ideal, architecture critic Herbert Muschamp points out that people “reject exposing the subjectivity when one piece of stuff is preferred to another.” The opposition between an individualized inner world and an objective, shared, neutral world outside becomes reversed: The private living space has taken on the guise of objectivity: neutral, value-free, as if this were a found space, not an impeccably designed one. The world outside, meanwhile, has become subjectified, rendered into a changing collage of personal whims and fancies. This is to be expected in a culture dominated by the distribution system. That system, exists, after all, not to make things but to sell them, to appeal to individual impulses, tastes, desires. As a result, the public realm has become a collective repository of dreams and designs from which the self requires refuge.¹⁷

How can one accomplish a similar escape in new media? It can only be accomplished by refusing all options and customization, and, ultimately, by refusing all forms of interactivity. Paradoxically, by following an interactive path, one does not construct a unique self but instead adopts already pre-established identities. Similarly, choosing values from a menu or customizing one’s desktop or an application automatically makes one participate in the “changing collage of personal whims and fancies” mapped out and coded into software by the companies. Thus, short of using the command-line interface of UNIX, which can be thought of as an equivalent of the minimalist loft in the realm of computing, I would prefer using Microsoft Windows exactly the way it was installed at the factory instead of customizing it in the hope of expressing my “unique identity.”

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7. <http://www.adobe.com>.
8. <http://www.macromedia.com>.
9. <http://www.aw.sgi.com>.
10. <http://www.apple.com/quicktime/fluthoring/tutorials.html>.
11. <http://geocities.yahoo.com>.
12. <http://www.turneupheat.com>.
13. E. H. Gombrich, *All and Illusion*; Roland Barthes, "The Death of the Author," in *Imago/Music/Text*.
14. Barthes, "The Death of the Author," 142.
15. Bulat Galeev, *Soviet Faust: Lev Theremin—Pioneer of Electronic Art* (in Russian) (Kazan, 1995). 19
16. <http://www.microsoft.com>; <http://www.macromedia.com>
17. Herbert Muschamp, "Blueprint: The Shock of the Familiar," *New York Times Magazine* 15. December 1998, 66.