Architecture’s efforts to respond to the digital paradigm have so far focused primarily on the exploitation of new tools to produce new forms. Yet despite the apparent novelty, the work itself fundamentally adheres to an old model of architectural production—a model that has become increasingly irrelevant to an evolving digital-age culture. Instead, architecture needs to look more closely at the ways that digital technology has changed cultural practices and values in order to produce a new kind of architecture that is culturally meaningful and relevant.

In terms of the production and dissemination of derivatives of an original work of art or architecture, digital technologies have amplified but have not otherwise fundamentally altered the dynamics originally observed by Walter Benjamin with regard to mechanical reproduction technologies. Where the digital paradigm distinguishes itself, however, is in its invalidation of the dialectic between the original and derivative that provided the framework for Benjamin’s observations.

The digital places a higher value on information than on its particular embodiment. Therefore the idea of an original, preferred embodiment of this information is increasingly irrelevant; today information content takes precedent over its form(at). Instead, contemporary society places a premium on the ability to disseminate, update, and customize this content.

The digital has also blurred the boundary Benjamin assumed between the author of a work of art and its audience. While the flexibility of web browsers have long allowed individuals to personalize the information they receive through filtering, the rise of open-source and open-content databases—such as Wikipedia and Blogspot—has further extended this independence by allowing individuals to easily author and edit information for consumption by others, which has made the info-space of the web a relatively democratic one. So, while Benjamin ruminates on the loss of the aura, the digital forces consideration of the loss of the author—or, rather, the distribution of authorship.

For a discipline such as architecture that has historically been so invested in the production of original, immutable works by a single author (the architect) the digital paradigm therefore presents a particular problem: it has given rise to a culture that expects and values the ad hoc customization and manipulation of content, which is a phenomenon that traditional architectural space can not satisfy.

In fact, architecture is already losing its ability to sustain the attention of today’s wired and mobile society. Portable communication technologies such as iPhones and laptops now permit individuals to become authors of their own immediate environmental experience. And while these experiences are not as profound or robust as architecture is capable of producing, they are often more engrossing to the individuals in question. Consequently, in terms of engagement they trump the physical environment which, lacking any means to be tuned or otherwise manipulated, is quickly relegated to an inconsequential backdrop, regardless of any formal exuberance or novelty.

A strategy for re-establishing value to the physical spaces that architecture produces is therefore required, and could be achieved through the development of techniques that allow them to produce architectural affect through manipulation and customization by their occupants. In this way architecture would create environments that were more open-content in nature, enlisting individuals as agents for their continual re-creation through the manipulation of their physical content.
This approach is in stark contrast to architecture’s prevailing attempt to address the digital paradigm, which has so far been limited to the adoption of more sophisticated digital tools and the production of certain forms that showcase these tools. This approach, despite its focus on novel technology, is actually an atavistic model. Seeking inspiration from the tools themselves is analogous to Louis Kahn asking a brick what it wants to be; the attempt to glorify the exigencies of a particular material (or software, in this case) amounts to a reduction of architecture to the level of a decorative art. When Kahn asserted that the brick wanted to be an arch he was simply carrying forward an extremely traditional idea of architecture, one that is satisfied by pursuing the technical mastery of material and craft for the production of material spectacle (such as an arch, or a dramatic cantilever, or a continuously varied form), rather than in its ability to convey a meaningful idea. So, when architecture promotes a “digital aesthetic” characterized by new forms whose conception is so inextricably connected to the capabilities and limitations of software, then that is tantamount to Kahn asking Rhino or any other modeling application what it wants to be—it is an act of software craftsmanship, an ancient paradigm grotesquely applied to a contemporary technology.

What architecture needs is a new paradigm, not a new aesthetic. It needs to re-understand its relationship to culture. Architecture is, after all, a cultural enterprise, a disciplined practice that employs a variety of techniques to produce forms and spaces that resonate with society, that are socially and culturally meaningful. Consequently, the question for architecture ought to be: how has the advent of the digital/information age altered society and culture, and how therefore can architecture meaningfully respond to these changes in the realization of its works?

The most obvious cultural change, as noted above, is in the way that society relates to information, or to authored content in general. The popularity of open-content websites such as wikis, blogs, and online forums or chatrooms that allow or encourage authored content by their users is a barometer of the degree to which society values such participation, and the degree to which individuals associate such digital technologies with the ability to both be expressive and to manipulate or tune their relationships with others. Recent studies focusing on teens are particularly telling—and also particularly consequential for architecture, since this demographic will soon be the dominant culture. A 2005 study, for example, showed that one half of all teens were internet content creators, meaning that they “created or worked on a blog or webpage, shared original creative content, or remixed content that they found online into a new creation.” This study further asserted
that “teens and adults alike have embraced the ability to gather, chop, blend, and re-blend content to create new expressive materials,” and that “younger Americans have grown up in a world of media forms that allow them to participate in the production as well as consumption of content.” And although this study emphasizes a trend in the teen population, an earlier study demonstrated that of those who currently create content for the internet, nearly half are between the ages of 30 and 49, which indicates that this cultural dynamic is already a demographically broad one.

An architectural paradigm shift characterized by work that allows individuals to participate in manipulating its physical “content”—such as its formal or spatial relationships—would therefore allow the discipline to respond directly to this cultural dynamic. In addition, this approach would release the discipline from its current and prevailing reliance on novel, static formalism as the sole means by which it can assert its relevance to society. Apart from the paradigmatic problems with the notion of a “digital aesthetic” noted above, such an emphasis on form is problematic given the overwhelming discrepancy between the typically long endurance of a work of architecture and the brevity of society’s attention to or association with an idea that would support a particular form. In other words, an architecture based upon a static, immutable formalism is inherently doomed to rapid obsolescence, and will therefore quickly lose its ability to engage the society it is meant to address. In contrast, an architecture that primarily derives its value or affect from its ability to be tuned or manipulated can assert such value in spite of its particular formal character, in much the same way that information largely retains its value across multiple types and generations of formats.

One potential pitfall with suggesting the open-content concept as a model for architecture, however, is that it conjures images of cutting-edge technology as the means by which to achieve its effects. This is problematic, since architecture is for the most part comprised of extremely low-tech materials and assemblies, which makes it difficult to achieve a technological congruency when more sophisticated technologies are introduced. Typically, architecture deals with such technological discrepancies either by segregation, wherein the lower-tech architecture is described as separate from these other, more sophisticated technologies that support it, or by framing, wherein the lower-tech architecture is designed only to be a backdrop that supports or features a newer technology.
The open-content model, however, would neither require nor benefit from an injection of technological sophistication. Rather, its purpose is simply to present a new model for the way that individuals relate to architecture—one that is more meaningful and relevant to contemporary society—and this can be achieved through rather modest means by identifying techniques that allow the relatively simple stuff that architecture is made of to be tuned and manipulated by those that occupy it.

The projects that have been used to illustrate this paper, for example, employ readily available and relatively commonplace technologies, ranging from casters to hydraulic cylinders. However, they each achieve effects that are highly interactive, that allow the architecture to be re-authored by its occupants in order to allow it to relate more specifically to the way that they intend to occupy it, to allow the occupants to conceive of and create new manners of occupation and use, and to allow the occupants to employ the architecture as a means for individual expression. Furthermore, in each case the primary architectural affect is independent of the formal aesthetic, which is advantageous to the discipline in that it decouples architectural value from formal novelty. Instead, works produced in this fashion can assert value across a wide range of formalisms, and can sustain that value over a long duration even in the face of a loss of interest in a particular form.

The open-content model therefore restores to architecture a degree of cultural relevance that it has not witnessed since early Modernism, and offers a strategy that will enable it to preserve this relevance in the face of the rapid succession of aesthetic trends and across the lifespan of a building. It both accommodates society’s increasing desire for content customization and control and gives expressive form to this desire, celebrating its defining role in contemporary society and thereby producing an architecture that is engaging and meaningful to that society. And it demonstrates the proper way for the discipline to address the digital paradigm—not through an obsession with new tools for digital fabrication and representation or through a fetishization of the imagery and forms enabled by those tools—but rather through a fundamental rethinking of architecture and the character of its authorship based on the changes to society and culture that have resulted from this new paradigm.
MOMO, Redondo Beach, CA (Jones, Partners: Architecture)
A house comprised of two rolling enclosures mounted on crane rails. They can be positioned separately or joined together.

Rob Brill Residence and Studio, Silverlake, CA (Jones, Partners: Architecture)
A rolling bridge within a three-story residential volume creates a repositionable mezzanine and balcony extension.

NOTES

1 Wiki is the Hawai’ian word meaning “fast,” and has subsequently come to stand for a collection of open-content web pages that can be quickly and easily edited by its users. This more recent usage is attributable to Ward Cunningham, creator of the first online wiki, known as the WikiWikiWeb (for more information on the history of its online usage please see http://c2.com/doc/etymology.html). Wiki wiki is a reduplication of the root word, which is a transformation commonly used in Polynesian languages to intensify meaning—in this case, meaning “very fast”—and was selected by Cunningham to showcase the speed with which the WikiWikiWeb could be edited by its users. It is perhaps somewhat ironic that this new technology and its attribute of speed would be referred to in a language that so uniquely preserves its Neolithic genesis and belongs to a culture so renowned for its unhurried pace of life. As applied to architecture, however, this irony is a useful reminder of the contrast between the slow and static character of conventional architectural construction and the cultural context within which it exists, which is that of a fast-paced, information age society that places a high value on speed and interactivity. Wiki-tecture, then, is meant to evoke the idea of the transformation of this slow, static architectural production into an architecture that is “faster”—in other words, one that can be easily manipulated by its users.

2 In fact, to digitize something is to fundamentally strip it of its form. Consequently, in an age of digital information, the value placed on an original embodiment has both lessened and also adopted a nostalgic connotation—such as, for example, the lingering value ascribed to vinyl records in the face of the overwhelming cultural adoption of digital music files.

3 Open-source indicates a software wherein the scripting language is made available for editing and refinement by its users, whereas open-content refers to a software, such as a database, where only the content is made available for editing and refinement by its users. The distinction in terms of authorship is that in the case of an open-source creation the original author’s contributions are slowly manipulated by the efforts of other authors over time as the work is refined and edited, leading to a case of multiple-authorship. In the case of an open-content creation, however, the original author’s contribution constitutes the framework that supports the editable content contributed by other authors, such that the original authorship is preserved. An example of this distinction would be between Linux, an open-source operating system whose source code is freely editable by anyone, and Wikipedia, an open-content database whose content is editable by anyone within an established, non-editable framework that preserves the look and functionality of the database. Whereas the first is more radically open and democratic, it is also problematic in terms of its ability to serve as a useful analogue for architecture, in that its essential character is not necessarily preserved over time. An open-source architecture, therefore, would necessarily be a transient one, since those aspects that define its architecture-ness (its architectural “source code”) would be able to be modified in such a way that could potentially negate its architectural value. Open-content creations, meanwhile, sacrifice a degree of openness in exchange for the ability to preserve their essential character. As an analogue for architecture, therefore, they describe an object whose architectural character is preserved over the course of its manipulation by others.
