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AFTERMARKET
SUPERMARKET

A Speculative Retrospective

Alexander Kim
Prof. Benjamin Farnsworth
December 14, 2015
Introduction

In the preface to *Delusive Spaces: Essays on Culture, Media and Technology*, media theorist Eric Kluitenberg writes that “the delusion of the new”\(^1\) pollutes our theorizations of new media. This sort of technocratic fetishization of emergent technologies can only amount to a surfatial investigation of its effects or capabilities. Architectural investigations of virtual reality and other new media systems suffer from this tendency as well. Content-based experimentation and criticism obsess over the simultaneously exciting and daunting prospects of what we can now *do* or *make* with recent digital developments. There’s definite value in such endeavors, but frankly, in the grand scheme of things, it’s about as significant as, in the words of Marshall McLuhan, “The stenciling on the casing of an atomic bomb.”\(^2\)

This thesis takes an intentionally circuitous route towards an investigation of the virtual to allow a more effective unpacking of the disciplinary ramifications of emergent technologies. While its speculative assumptions launch from current trends in technological developments, the project places the temporal setting in a speculative
future, when many of the systems we call emergent today will already have been subsumed into mass cultural use. The role of these systems transition in the practice of spatial production from a tool to output physical forms (as it’s regarded today) toward an internalized medium of digital self-actualization. In this setting, the kind of tangible doing and making one might be able to take on from the year 2015 would be considered infantile. Instead, by deploying the objects of this architectural thesis as found artifacts and versions that have emerged out of this speculative history, we might place ourselves in the cultural context of a modal fiction—an approach to the non-real that regards the conditions and logics of other possible worlds with the same criticality with which we analyze our own. Through the lens of this possible world we can then more effectively articulate our relationship to virtual reality by interrogating more realized—albeit fictive—architectural and cultural ramifications of its integration as a medium rather than a tool.


What follows is an internal corporate document from a major digital commerce enterprise produced in 2023. The document reviews the company’s own integration of virtual reality as a mode of consumer engagement.

All characters appearing in this work are fictitious. That being said, identification with actual persons, places, buildings, and products is intended and should be inferred.
MARKETPLACE:
A Five-Year Performance Review
The end of this fiscal year will mark the five-year anniversary of the launch of Marketplace & Amazon Eye. This document serves to review the history and growth of our latest and perhaps most complex venture. As is apparent in the following letter to our shareholders written by Jeff Bezos, our approach to success has always been unorthodox. In keeping with that theme, this performance review will not be an extensive analysis of numbers (numbers are important, too, of course, but they can be found in a boring and complex document at the office of our CFO, Brian Olsavsky).

This document will instead explore the history and development of the Marketplace program through four exemplary stages—Marketplace v1.0, our initial venture into VR integration, and three third-party applications for the Amazon Eye that brought wholly new elements into Amazon’s digital commercial structure.

In essence, while the numbers have undeniably been good, we the members of the Amazon Eye team believe that the true value of our work lies in its contribution to shifting cultural practices of commerce through the integration of experience economy thinking at all ends, from producers to consumers and the spaces that mediate them.
To our shareowners:

Those of you who have been with us for some time might remember two initiatives we launched about a decade ago—AmazonFresh and Marketplace. At first glance, the two operations may seem diametrically opposed, as they presented two strikingly different economic models. The prior was a home grocery delivery operation that used Amazon’s existing infrastructure to centralize grocery distribution under the network of our fulfillment centers specifically designed to store and process perishable goods safely and efficiently. The latter was a partnership program that allowed third-party sellers to distribute their goods directly through Amazon’s digital platform and fulfillment center system, accruing a large share of our sales through incremental microtransactions across a massive network of sellers spanning the globe.

Those of you who haven’t been with us quite as long might be a little confused by the distinction I make here—and rightly so; the Marketplace you’re probably more familiar with is the present day system that merged many of the separate ventures of Amazon under a singular umbrella in 2018 in conjunction with the development and release of our virtual reality interface, the Amazon Eye.

The synthesis of our digital commercial infrastructure and the immersive experience afforded by virtual reality began as a rough experiment to more deeply partner with our third-party sellers through virtual tours, learning sessions and immersive advertisement campaigns. One of the earliest beta tests was for a virtual cooking class, sponsored by various food companies that allowed users to virtually learn about the ingredients and how best to use them before deciding what to purchase.

While an exciting prospect, the earlier ventures like this had some admittedly terrible growing pains—looking back after a more successful few years, the initial approach we took to VR as a tool for delivering tangible products was clearly lacking in imagination. Simply using the technology to place our users in a virtual representation was little more than a gimmick—the true value of VR was in its facilitation of a direct (albeit virtual) connection between the makers of products and their consumers and the potential of experience as a medium for the personalization of production and consumption.

And so, I’d like to thank each and everyone of you who weathered the storm and trusted our fantastic team at Amazon Eye through the perils of risk. It’s a position I’ve maintained since Day One of Amazon—those of you who have been with us since the beginning will remember. We target massive, often hidden, markets, and in order to succeed in such uncharted territory, as I said in my first letter to our shareholders, it’s all about the long term. The result we see today after the last five years is a self-proliferating commercial platform that weaves sellers, virtual interface designers, users and consumers into a complex, integrated community that places experience before product. It’s perhaps the clearest piece of evidence of the virtual’s capacity to radically expand the territories and roles of not just our sellers, but the media creators, users and consumers who collectively sustain the community of the Marketplace we have cultivated.

Jeffrey P. Bezos
Founder and Chief Executive Officer
Amazon.com, Inc.
September 2023
Top: Beef Menu, AmazonFresh
Bottom: Oculus Rift Demo at the 2014 Game Developer’s Conference
**PRE-RELEASE TIMELINE**

- **Aug. 2007:** Beta launch of *AmazonFresh* to Seattle users.
- **Sept. 2012:** Oculus Rift DK1 releases, reviving stagnant interest in immersive VR systems.
- **June 2013:** *AmazonFresh* expands to Los Angeles.
- **March 2014:** Facebook acquires Oculus.
- **Oct. 2015:** *AmazonFresh* initiates simple subscription fee system to help accelerate the program’s expansion.
- **Jan. 2016:** *Amazon Eye* project begins.
- **April 2016:** *AmazonFresh* now available in 18 U.S. cities, supermarkets in Seattle, Los Angeles, and San Francisco Bay Area begin to shut down.
- **Feb. 2017:** Beta version of *Amazon Eye* released to developers, testing on beta *Marketplace* begins.
- **Oct. 2017:** *AmazonFresh* now available in all major U.S. cities—third party distribution system introduced for remote locations.
- **March 2018:** *Amazon Prime* subscription combined with *AmazonFresh*; website architecture of AmazonFresh combined with Amazon.com’s main site.
- **Dec. 2018:** Forthcoming *Amazon Eye* and *Marketplace* launch are publicly announced at Amazon’s year-end party.
Official Patent Document for the initial release of the Amazon Eye VR device
DAY ONE
DAY ONE

Amazon Eye and the Marketplace launch was pre-announced at the end of 2018 as part of our fiscal year statement, and the system was started with a soft opening in February of the following year.

At the core of the virtual infrastructure was a skeuomorphic market environment that operated as a sort of “home page” for the VR system. Here, the sortable, algorithmically recommended list of products found in the Amazon website would be three-dimensionally represented in a virtual market environment. Once an item is selected, the user can access an experience created by the item’s seller to host an informative, immersive VR tour of their product.

Through a beta launch that began a year before that, we were able to initiate the soft opening with a pre-loaded set of VR experiences, ranging from virtual cooking lessons to immersive winery tours, but there wasn’t a large enough network yet for a full release. The idea was to generate seller and app developer interest through the publicity around the soft opening—before we could officially announce the Marketplace and roll out the Amazon Eye to a consumer audience, a fully fleshed out infrastructure of virtual experiences was necessary.
Official Patent Document for the initial release of the Amazon Eye VR device
App Icons for (from top) California Dreaming, The Garden, and Cartland
PLAYTIME:
THREE EXEMPLARY MODELS OF COMMERCE AND CONSUMPTION IN THE NEW EXPERIENCE ECONOMY
The first breakout application was an environment by a young online streetwear retailer called California Dreaming. The group already possessed trademark licenses with most of the distributors they worked with, so they used this opportunity to create a skateboarding environment filled with neon signs of their partners’ logos. When approached, like the supermarket interface, the signs display additional information about specific products in their catalogue.

However, the most novel function of this app combined a game-like mechanic of achievements and scores with the extant limited-run culture of streetwear attire. Users skate to accrue points that can be redeemed for access to limited-run products, doing away with the simple first-come, first-serve operation that existed before. The system grew very popular, and California Dreaming began releasing whole new product lines were inspired by the environment to meet increasing demand.

This was a game-changer (pun intended). It was among the first campaigns to use virtual reality for what it was best known for, an exciting ludic experience—it just happened to sell things as well.
Screen view of California Dreaming, user CABOOMDUDE
Where California Dreaming gamified consumption, The Garden did so for production. This environment was one of many launched in conjunction with our full launch in October 2018. It was uniquely not a production of a specific seller, but an independent game that added a ludic layer to the market model as a whole.

The Garden allows users to cultivate and breed their own plants, which can be harvested for consumable groceries. Gardeners must tend to their crops with vigilance, but by paying a small sum, gems could be redeemed to seed clouds or boost the sun’s power to assist in the crops’ development.

Or, since the system of the game allows the generation of unique flora, these virtual plants can be ordered as collectible physical objects as a log of one’s history in The Garden. These functions are perhaps most representative of the emerging autonomous digital economy of Marketplace, divorced from the tangible products it began around. In fact, much of The Garden’s audience today cares less about the tangible consumability of the plants than the ludodromic experience, for which they willingly pay to play.
Screen view of The Garden, user CONSTANT_GARDNR
The development of a video-sourced photogrammetry application has made the technology far more ubiquitous. We created Cartland to integrate this technology into the Eye network. It’s the most straightforward of the three applications, but the manner in which the user base took it on is perhaps one of the stranger narratives of our VR developments.

Users can catch and upload a model of something they encounter physically into Cartland, and an image recognition process analyzes and matches those objects to their equivalents in the Amazon database. These objects are then scattered across a landscape of the users’ choosing, generating a personally tailored experience not unlike window-shopping—a simple system that aimed to seamlessly stitch our physical lives to the Marketplace.

What has emerged instead is a social network of strange, solipsistic landscapes that users share and navigate. As personal shopping carts, each of these environments are generated for an audience of one, but many individuals have opted to open their landscapes to the public eye—transforming Cartland into an Instagram-esque autobiographical log of the users’ daily encounters.
Always remember: It’s still day one.
Like many of Amazon’s ventures, Marketplace has only just turned profitable this year. We’re still making up for a deficit accrued over the last eight years of development, and we likely will be for some time. But that’s just the way we do things here.

So it’s important as we continue to develop Amazon’s relationship to virtual reality that we don’t let the success stagnate our speculative experimentation; that we don’t fall back on the conventional tactics and norms of commerce as we know it.

It’s clear from the examples we’ve gathered from this document that some of the most exciting developments in the Marketplace came from the fringes of existing commercial models (e.g. games and social networks). In turn, working in the fringes has expanded the territory of operation not just for our company, but for the culture of commerce and consumption at large.

That’s the continued merit of Amazon’s Day One mentality—only by consistently living and working at the edge of risk and speculation can we remain at the forefront of economic and cultural advancement.

- The EYE team

Lab126 | Amazon Technologies, Inc.
Terms & Conditions of a Virtually Mediated Architecture

The speculative narrative and its surrounding artifacts delineated in this document explore the potential proliferation of commercial and branding typologies as corporations like Amazon adopt virtual reality as a medium of operation. As a technology grown and growing out of game design and social media, the virtual inherits the characteristics and biases of those media forms—a user interface-based spatial interaction with ludic systems is fundamental to how the virtual delivers experience and information. These properties are, to a degree, incongruent with existing commercial models bound in the physical, and as a result, the adoption of virtual reality as a commercial medium inherently pushes commercial practice to the fringes of its familiar territory.

In turn, the architect in this new mode of work would similarly be called to operate at the fringes of our existing bounds of the discipline. The existential liberation of the autonomous architect is fully realized as the contingencies of reality are obliterated, and the roles of digital image and model, for example, transcend those of communicative devices in pursuit of a removed output to become self-actualized mediums of delivery. The types of images one would produce also might begin to borrow the language of game design or UI/UX systems.

Simultaneously, the inherent fluidity of the virtual medium disrupts the boundary between architect and his or her audience in multiple ways. Most obviously, the ability to “version” environments in a virtual system of delivery affords
a direct line of agency for the architect’s audience. One might imagine that a disgruntled body of users could demand the architect of a virtual product to refashion it to their liking.

In addition, the screen-based projection of virtual form creates a literal and ontological flattening of space, image, and object. In the context of this thesis’ exploration of commercial territories in the virtual, this suggests the potential for commodification in all of the material that makes up the architect’s virtual work. The architect’s role expands beyond mere producer of space—in inevitable response to demand, the cultural objects and images that proliferate outward from the spaces he or she produces might be regarded as valid territory for operation as well.

Here in lies the paradox of authorship in the virtual. The designer can exercise direct, autonomous control of his or her product, and the contingencies of realization are meaningless. However, without an audience, production in the virtual may as well be nonexistent. So, as a result of its dependence on audience as a source of tangibility, architecture in the virtual takes on a new form of contingency—one exclusively beholden to public opinion and aesthetic preference. According to architect Jason Payne, it’s the sort of context a musician might be more familiar with than a designer\(^1\). So do author-architects pander to the masses and “sell out” as their audiences grow? Perhaps not—if the atemporal conditions of our digital culture, Rule 34 (look it up), and the 733,853 unique Subreddits available tell us anything, it’s that if it exists, there’s an audience for it, however minute.

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\(^1\) Jason Payne, “Subpop (Or, Keeping it on the Down-Low)” (paper presented at the Association of Collegiate Schools of Architecture Fall 2010 Conference, Chicago, IL, October 21-24, 2010).