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BRINGING THE MARKET TO LIFE: SCREEN AESTHETICS AND THE EPISTEMIC CONSUMPTION OBJECT

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ABSTRACT

This paper argues that the new “visuality” (Schroeder, 2002) of the Internet transforms the stock market into an epistemic consumption object. The aesthetics of the screen turn the market into an interactive and response-present surface representation. On the computer screen, the market becomes an object of constant movement and variation, changing direction and altering appearance at any time. Following Korr Centina (2000, 2002) we argue that the visual logic of the screen ‘opens up’ the market ontologically. The ontological liquidity of the market-on-screen simulates the indefiniteness of other life forms. We suggest that the continuing fascination with online investing is a function of the reflexive looping of the investor, who aspires to discern what the market is lacking, through the market-on-screen that continuously signals to the investor what it still lacks. Implications for existing theories on relationships and involvement are discussed.

Keywords: aesthetics, visual consumption, epistemic object, stock market, investing, involvement, relationship, Internet, computer-mediated consumption.

Introduction

The investment boom years of the late nineties came to a grinding halt when the stock market crashed in the spring of 2000. The pervasive optimism so characteristic of the new online investor class that had formed at the intersection of technological innovation, neoliberal economics, and the progressive individualization of society (e.g., Gagnier, 1997; Heelas, Lash and Morris, 1996; Sassen, 1999), was gradually replaced by a more sober sense of capitalist promise and personal vulnerability. While 1999 levels of consumer excitement, trading activity, and brokerage profitability may never return, recently online trading again is becoming more popular as indicated by increasing online trading volumes. Three years after the bubble burst it may be concluded that the benefits of the digital format have established the practice of buying and selling stocks online as one of the few successful and enduring online business models.

In many respects equally significant as the transformation of the *practice* of personal investment into a seemingly trivial, consumerist act of “online shopping for stocks”, has been the change in the phenomenological condition of investors’ *perception* of stocks and the stock market. As new communication and information technologies unfold on the field of global financial flows and exchanges, the aesthetic qualities of a visual representation governed by the screen produce a new ontology of the market *as object* and come to dominate the relationship between the online investor and the market. The screen assembles a geographically dispersed and invisible market and presents it to the “stock shopper”, as one of our informants liked to refer to himself, as a cohesive and continuous consumptionscape (Ger and Belk, 1996). In addition to its clear boundaries and location, when rendered visible as real-time representation on the computer screen,

the market emerges as an always changing and unfolding entity, or what we call *epistemic consumption object*. The notion of the epistemic object (see also Knorr Cetina, 1997), defined as an ontologically open, unfolding structure that is non-identical with itself, is useful to explore the unprecedented and enduring fascination of the masses with the stock market since the emergence of the Internet. Hence, in this paper we draw from phenomenological interviews with American and German online investors to formulate a theory that links the aesthetics of the screen to the emergence of the market as epistemic consumption object.

The rest of the paper is divided into three parts. First, we review conceptualizations of the ontology of consumption objects in marketing and consumer research. In addition, we explore how these disciplines theorize the relationships between consumers and objects of consumption. Second, we draw from visual and qualitative data to propose that the aesthetics of the computer screen fundamentally affects the ontology of the consumption object by transforming it into an epistemic consumption object. In particular, we theorize that the visual logic of the screen is critical in *bringing the market to life* in the eyes of the investor. Finally we offer some remarks regarding current theories of relationship and involvement (e.g., Coulter, Price and Feick, 2003; Fournier, 1998; Schau and Gilly, 2003). We argue that existing theories are deficient because they do not conceptualize the ontology of the consumption object.¹

By focusing on the cultural work of the computer, we add to an emerging body of literature that refuses to reduce the Internet and the computer to purely instrumental entities (i.e., the internet as communication, sales, and distribution channel) (e.g., Dholakia and Zwick, 2004; Kozinets, 2002; Schroeder, 2002). In addition, no analysis of

the online investment phenomenon has taken the representational logic of the medium into consideration. Therefore, students of consumer behavior and finance have missed the objectifying and aestheticizing effect of the screen on the online investor's perceptual horizon (e.g., Allen, McGoun and Kester, 2000; Allen and McGoun, 2000; Odean, 1999). Finally, by suggesting that consumer goods increasingly are becoming ontologically indeterminate and emerging entities akin to life forms with which consumers develop new forms of relationships, we propose that conceptualizing products as extensions of the self (e.g., Belk, 1988), consumption as play among fellow consumers (e.g., Grayson, 1995; Holt, 1995), and communities as spaces for instrumental social interaction of its human participants (e.g., Bagozzi and Dholakia, 2002) is no longer complete. As the knowledge society turns an increasing number of consumer products into epistemic objects any analysis of consumption practices and consumer culture must take at least this ontological fact into account.

Conceptualizing Consumer-Object Relations

Objects, defined as non-human entities, in consumer culture have received ample attention. They figure prominently in theories of the consumer self, consumer identities, and consumer communities (for a summary see, Arnould and Thompson, forthcoming). Studies in the tradition of consumer culture theory show how consumers appropriate, decommoify, and singularize objects (e.g. Belk, Wallendorf and Sherry, 1989; for a review see Kleine and Menzel Baker, 2004; Rook, 1985) and that consumers develop psychological and emotional attachments to consumption objects (Belk, 1992a; Kleine and Kernan, 1991). Objects serve to tell stories and to remember as well as to represent and to commune (e.g. Belk, 1992b; Bonsu and Belk, 2003; Holt, 1995; Wallendorf and

Arnould, 1988). Consumers may become highly and enduringly involved with consumption objects as evidenced by the devotion of Harley Davidson owners for their motor cycles (Pirsig, 1984; Schouten and McAlexander, 1995) and sports fans, who often stay involved with particular teams for entire lifetimes (Giulianotti, 1996; Holt, 1995).

All consumer research about objects is also about relationships, such as the relationship between objects and the self (e.g. Belk, 1988), between a sign and an object (e.g., Grayson and Shulman, 2000), between an individual and a community (e.g., Cova, 1993; Maffesoli, 1996), and even between the living and the dead (Bonsu and Belk, 2003). Brands may also be considered relationship objects linking consumers to other consumers, stories, images, and myths and vice versa (Fournier, 1998; Holt, 2003; McAlexander, Schouten and Koenig, 2002).

What is interesting about all the studies that have investigated the many processes and rituals that endow meaning to objects and make them the stuff of the construction of identities, communities, and selves, is that a theory of the consumption object itself still eludes us. Without exception, relationships between consumers and objects are theorized from the perspective of the consumer and from that vantage point, the *ontological status* of the object depends on the needs, desires, and characteristics of the consumer. Hence, consumer researchers who look for reasons why consumers relate to, commune around, and get involved with particular objects believe to find them in the nature of consumers rather than the nature of the object. For example, our current theoretical repertoire lets us recognize a hand-made vase, perhaps created by a family member in some rural part of India, as a powerful symbol of cultural identity and personal history for a young Indian student abroad (see also Mehta and Belk, 1991). It is not the vase *in and of itself* that is

significant but the meaning the vase represents *to this particular Indian student*. Put differently, for consumer researchers the ability of the vase to serve as a meaningful object of involvement and relationship is not intrinsic to the vase but dependent on the personal history and cultural heritage of the student.

Hence, we do not dispute that objects are “powerful repositories of meaning” (Fournier, 1998, p. 365) and that relations between objects and consumers are fueled by such meaning. Rather, based on our visual analysis (Schroeder and Zwick, 2004; Schroeder and Borgerson, 1998) of the virtual stock market and data derived from interviews with online investors we extend the conceptualization of objects as mere products of socially and culturally constructed meanings, by introducing the concept of the *epistemic consumption object*. Below, we take a closer look at the market-on-screen, and explore its nature, its ontology, in order to arrive at a better theoretical understanding of the role of aesthetics in determining the ontology of objects. In particular we argue that the screen aesthetics *brings the market to live*. In other words, we theorize that on the screen the market is configured as an epistemic consumption object, which appears as a life form in the eyes of the investor. First, however, we provide a brief discussion of our method.

Method

Some might question whether the market should be regarded as an object at all. Alternative descriptions are well-known. Economists see the market as made up of rational actions of free individual actors and economic sociologists consider the market to be a network of institutions structurally linked by processes of production, consumption, and distribution (e.g., Swedberg, 1994). Consumer researchers typically disassemble the

market into its human components by analyzing the interactions, experiences, and exchanges between consumers and marketers (e.g., Penaloza, 2001). For the purpose of this paper, we are interested in the market as screen representation and as perceived by the individual online investors sitting at their computer screens and researching stocks and making deals. The ongoing unfolding of new communication and information technologies on the field of global financial flows allows for the exteriorization and visualization of the market on the computer screen. Thus rendered, the market can be seen as an object of observation, interaction, and, hence, consumption.

For this paper, we draw from two interpretive research traditions. On the one hand we employ what Schroeder calls “visual analysis” (Schroeder, 2002; Schroeder and Borgerson, 1998), which is particularly useful to sort out meaning construction in visual images (Schroeder and Zwick, 2004; Stern and Schroeder, 1994). Visual analysis has mostly been used to research advertising images, but its analytical power can be brought to bear on any kind of visual representation, making it suitable for our study.

On the other hand, we employ data that was collected as part of a three-year long project studying the lived experience of online investing. Through long and repeated phenomenological interviews (Thompson, Locander and Pollio, 1989) and email exchanges with individual online investors in Europe and the U.S. in excess of 600 pages of text material was generated which serves as the basis for our analysis. Participants were recruited through personal contacts and referrals (see table 1 for informant profiles). At the time of the interviews, informants had typically around two years of online investing experience. They were do-it-yourself investors who are comfortable with computer technology and feel that because of the Internet banks and financial advisors

are no longer necessary for investment purposes. Most of our informants traded frequently, which we define as at least one transaction per month.

As is customary with this kind of methodology, interviews began with a grand tour question (McCracken, 1988) about the informant's background and initial motivation for beginning to trade stocks. The analysis of the data occurred according to the conventions of qualitative social science by implementing an iterative process of reading, interpreting, discussing, and theoretically integrating our textual data. Methodologically, we employ microlevel data gathered from consumers engaged with the market to formulate macrolevel theory about objects and relationships. Our strategy is to first develop a theory of the consumption object as epistemic thing and then suggestively retheorize relationship theory.

Table 1: Informant Profiles

Pseudonym	Age	Family Status	Profession/ Education	Nationality	Household Income/ US\$ per Year
Herbert	37	Married	Manager/MBA	German	50,000
Joachim	36	Single	Teacher/PhD	German	25,000
Manfred	37	Single	information technology Developer/M.S	German	60,000
Markus	30	Single	Project Manager/M.S.	German	50,000
Theo	44	Divorced	Lawyer/JD	German	70,000
Michael	25	Single	Student	German	30,000
Eberhard	37	Married	Journalism/M. A.	German	40.000
Sebastian	37	Married	Engineer/M.S.	German	n.a.
Steffen	36	Married	Banker/MBA	German	40,000
Oliver	31	Single	Teacher/ M.S.	German	14,000
Dieter	28	Married	Teacher/ M.A.	German	24,000
Christian	25	Single	Student	German	7,000
Peter	36	Single	Academia/PhD	German	65,000

Klaus	35	Married	System Administrator/ M.S.	German	60,000
Rudolf	36	Married	Biotechnologist M.S.	German	40,000
Larry	20	Single	Soldier/ B.A.	American	25,000
Richard	21	Single	Student	American	n.a.
Susan	21	Single	Student	American	10,000
Claudia	28	Single	Account Executive/MB A	American	50,000
Kenny	42	Married	Academia/PhD	American	40,000
Paul	25	Single	Sales Rep./B.A.	American	40,000
Ernie	32	Single	Manager/MBA	American	60,000
Eric	43	Married	Ad Designer/ M.A.	American	80,000
John	34	Married	Academia/PhD	American	50,000
Jacqueline	48	Married	Manager/ M.B.A.	American	n.a.
Adam	23	Single	Student	American	10,000

The Aesthetization of the Stock Market

The market run-up of the 1990s captured the imagination of many people in the affluent parts of the world and permanently transformed the way individuals in the U.S. and Europe know and interact with the stock market. It is difficult to overstate the significance of having an entire generation of first-time investor-consumers be socialized into the world of global finance and stock exchanges through technological screens: the Internet and entertainment-driven 24-hour business television. To this group of investor-consumers it now seems completely natural that decentralized, highly interdependent, and internationally operating financial markets – representing what Manuel Castells (2001) calls an unpredictable and chaotic high-technology vortex of informational turbulence – be entirely exteriorized and embodied on computer screens (Knorr Cetina and Bruegger,

2002a). The symbolic space generated by the screen assembles, contextualizes, and materializes 'the market' as a place. 'Finding the market', an imposing barrier to entry for masses of small investors of yonder, is no longer difficult. The screen now aggregates spatially dispersed and distanced information flows and subsequently visualizes them.

But as the screen becomes the gateway for investor-consumers to 'enter' the market and the image projected on the screen becomes the main stimulus driving his or her cognitive and interpretative labor (cf. Borgerson and Schroeder, forthcoming), what kind of perceptual horizon is opened up by this representational format? If we agree that images are central to consumer knowledge and belief systems, what then is the nature of the representations externalized by the screen (Schroeder, 1998; Zaltman, 2003)? Put differently, what ontological form does the market assume when visualized on the screen? To answer these questions we must look at the particular aesthetic work of the Internet in creating the market as symbolic space on their screens.

The landscape of modern financial markets is largely determined by electronic communication technologies. With these technologies, new codes and specific aesthetic techniques have emerged requiring new tools of interpretation (MacFarquar, 1994; Schroeder and Borgerson, 1998) and the change in the process of production of images affects their consumption. When photography emerged, it brought to light the tiniest authentic fragment of daily life, preserving in space that which is transient in time. Because photography slows to zero the speed of movement that exercises its fugitive effect on human perception and because it perseveres the intricacies, complexities, and details of everyday life that slip through the coarse grid of human visual capacity (Benjamin, 1979), individuals were suddenly confronted with a new capacity for

voyeurism and a blunt form of objectivity. The German writer Ernst Juenger (1989, p. 181) commenting on photographs from World War I, argues that the objective quality of the photograph denotes a new relationship between man [sic] and the world that is characterized by a “cold consciousness” and the “capacity to see oneself as an object” of representation rather than a victim of technological destruction. As the comments by Benjamin and Juenger show, objectivity in the aesthetic sense does not refer to the image’s epistemological quality (as, for example, closer to the truth of the real than paintings) but its ontological effects. By freezing time in space, photography bestows the subject of representation with a unique form of ‘object-ivity’ because it is turned it into a motionless, amorphous, and ontologically stable “thing.”

By contrast, in the age of the computer, the screen has become the dominant representational device which gives the market a “gestural face-in-action” and pronounces its independent existence as a “life form” (Knorr Cetina and Bruegger, 2002b). On the screen the market acquires its epistemic character by becoming a surface phenomenon that lacks ‘object-ivity’ and completeness of being, and is instead characterized by its non-identity with itself. But in what sense can the market-on-screen be defined as an epistemic consumption object? In fact what are epistemic consumption objects?

The Market as Epistemic Thing

When the online investor sits down in front of her computer and pulls up the online broker’s screen, she often operates several layers of windows simultaneously, covering the status of stock markets around the world, headline news, and analyst commentary. Another important source of information, which also appears on their

screen and which appears important to the actual trading of stocks in terms of the timeliness and usefulness of the information, are investment communities – some more serious than others – where participants contribute information. In addition, the investor's gaze is focused on the obligatory ticker on the bottom of the screen that incessantly runs by real-time valuations of stocks, indices, currencies, and other financial instruments.

Often featured most prominently on the screen is a window that lists all of the stocks contained in the investor's portfolio, their current valuation, and their most recent changes. During interviews that took place in front of the computer, the portfolio was typically visible at all times. Besides the overall account balance, this window also produces the history of deals made over recent periods. In addition to providing information on one's holdings, this window also lists stocks that the investor does not yet own but monitors in case an opportunity for a good deal presents itself. When researching potential targets for a trade, investors pull up charts representing the stock's past price movements and other visualizations of the stock as they pertain to the investor's need for information. In case a deal is made, another screen typically pops up through which transactions are conducted. Finally, while online investors use their broker's website to check on their portfolio, monitor stocks, and conduct transactions including moving money between bank and brokerage accounts, they commonly bring up at least one more informational site such as "Yahoo! finance" or the "Motley Fool" to compare and cross-reference information and validate share prices.

From a visual analysis perspective, the screen consists of windows piled upon windows and the choice of which window to center depends on the investor's interpretation of the dominant market story. Furthermore, the intensity with which the

investor watches a particular screen depends on “where the action is”, i.e. which screen shows the most activity and produces the most surprises. Generally however, everything is centered on the stock price window and other windows such as account balance and chat room commentaries take on secondary and tertiary roles. Observing the informants switching between windows – at one moment pointing out the strange shape of a stock’s 3-months chart and at another the comment of a “Fool”-analyst – we recognize that the screen presents, or as Knorr Cetina and Bruegger (2002b) put it *appresents*, information and knowledge, and that ‘doing online investing’ means managing the visibility of the market-on-screen.

To define the screen as appresentational device emphasizes the interactive and response-present aspect of the market-on-screen. Before the introduction of the screen, the stock market was acted upon indirectly through another person (typically a financial advisor) and business was conducted via the phone or facsimile. The “relationship” with the market was constituted by a bilateral, indirect, and typically “absent” channel. The market itself seemed removed from the gaze of the investor, “nested in territorial space [and] hidden in a transnational banking network of institutions” (Knorr Cetina and Bruegger, 2002b, p. 163).

Figure 1: Appresenting the Market





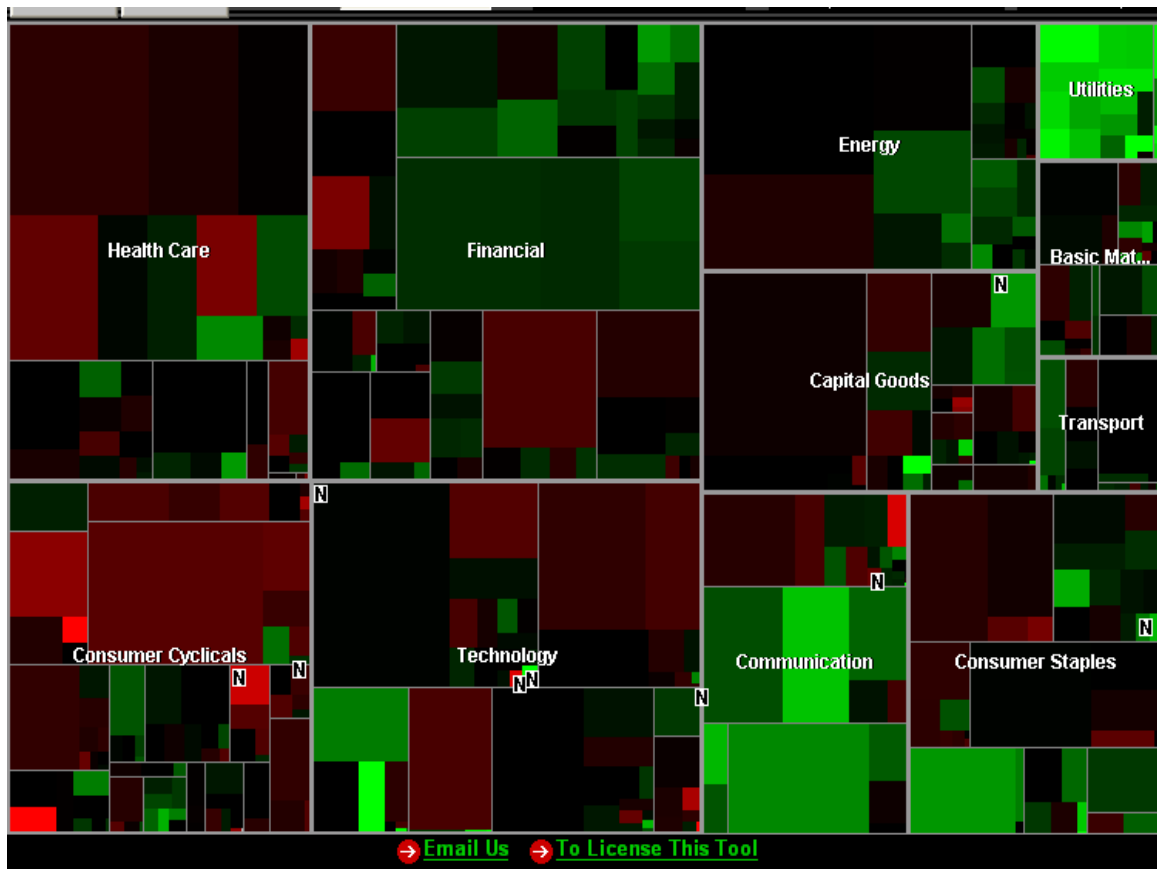
With the introduction of the market-on-screen, geographically remote and technologically dispersed exchange relations were assembled and aggregated, making the market available and recognizable as a unique creature. The aesthetics of the screen turned the market into an entity in its own right for the first time by representing knowledge and information – prices, risks, ratios, interpretations, gains, and losses and other relevant information – in one place (see Figure 1). The boundaries of the screen configure a ‘whole’ market and an interactive market and most of all, a market that continually morphs, moves, and changes before one’s own eyes.

Kenny: I mean, the market is what I can see right here [pointing to computer screen]. I log on to my brokers website and I see the market, I see what has happened over the past few hours and I can see what these changes have done to my own holdings. Right here, see? It’s all right here [pulls up a screen that summarizes his portfolio]. In the afternoon I always check the “Map of the Market” (see Figure 2 below) to get a quick overview of the whole market and events in the tech sector and how particular companies are doing. It’s a fantastic tool. You start from the top and you can go as deep into the market as you want, click on individual stocks, all right there. (42, professor)

Representative of the aesthetic power of the screen to turn the market into a response-present object is the so-called market map. The single image produced by the screen simulates a translucent world of finance, a plane of total visibility that cuts

through darkness, distance, and time barriers to place the individual online investor directly in touch with the market (see Figure 2).

Figure 2: The Market Map - The stock market as a geometric landscape



On the market map, globally (dis)organized and isolated industries (Urry, 1988) are represented as collectives of simple squared and rectangular surfaces, each representing a company belonging to that industry sector. There is a simple color code that governs the map's always changing landscape. The surfaces appear either red or green depending on whether the valuation of the company's stock at the New York Stock Exchange (NYSE) or the National Association of Securities Dealers Automated Quotation System (NASDAQ) is currently above or below the price noted at that day's market opening. One can click on specific sectors and "zoom in" on particular stocks, see recent changes in valuation and projected trends. The market-

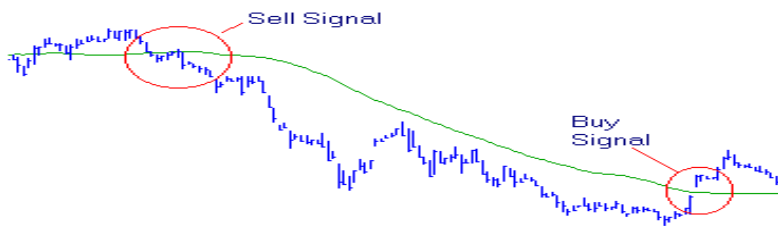
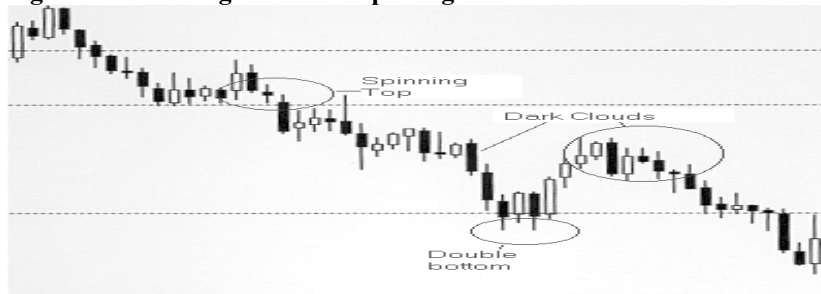
on-screen appears as a continuous world of exploration, surprise, and mystery. The market never stands still on the screen and new stories, surprise, and mysteries are signaled by every new change of color.

Oliver: For me everything changed with online investing. I actually owned stocks before I traded online but never cared much about the market in general and basically never thought about my stocks on a day to day basis. Now, the stock market is my version of daily soap (opera). Almost daily, actually. I don't check on some days. But usually at night, I have to see what happened to my stocks and whether I made money. If I hear on the radio or reading the news that the market has been volatile in Asia I check right away and see if I might be vulnerable to corrections or whether there might be a cool opportunity to make a quick buck. [...] I often get sucked into researching individual stocks or chatting in some chat rooms. There is always some whisper about something. I spend a lot of time identifying stocks to watch, research their charts, get their story on boerse.de (stock market-related website) and Handelsblatt (German version of Wall Street Journal). There is always something happening somewhere and I want to know about it. We all wonder where the next Microsoft is coming from. Biotech, maybe. So for the last two years, the market has been a great fascination. [...] I don't actually think I have made much money yet if any... (31, teacher)

Adam: So, I sit there and watch it and OK, this is, it's kind of interesting to watch. And I sit there I'd be like, OK, what is gonna happen next? You know, what are they [the other community members] gonna say? It's kind of like a soap opera. What's the company gonna do and what are **they** gonna say? Like when does their forecast come out, when does their earnings statement come out? And then what are the investors gonna do? It's like, alright, now would be a good time to buy. Or now would be good time to sell. I keep thinking what would be a good time or what should I do in this situation. So that's why I wanted to research the short selling situation, learn through doing it, when is a good time and apply it in real world? [...] Every time you think you know what is going on with a particular company or the industry, the economy, all these things that influence the market, I mean, there are so many aspects of it. You just never really know what's it gonna look like the next day. (23, student)

The market-on-screen writes drama. Stories of decline and ascension, wins and losses, twists and turns abound. The anticipation of what aspect of its story the market might reveal next, what discovery is around the corner, and who the next star might be is captivating to the individual online investor glued to the screen.

Figure 3: Unfolding Drama - Exploring the Market on Screen



The visuality of the screen gives birth to the market as object of information and knowledge, characterized by an ongoing cycle of revelation and discovery, of defining and continually redefining the object as it acquires new properties and changes or sheds old ones. Similarly, epistemic objects, in the sense first described by Rheinberger (1997), are characterized by the fact that interaction, observation, use, examination, and evaluation reveal them

progressively, by increasing rather than reducing their complexity. On the screen, the market becomes an ontologically open, question-generating, and complex entity, which has the capacity to continuously unfold, change, and morph into something else as new knowledge about the object is brought forth (Rheinberger, 1992). Available to the investor as response-present real-time visualization of information and knowledge, the market-on-screen is always in the process of becoming rather than being. Hence, the market is characterized by what it is *not yet*, rather than by what it is at any moment.

The Market as Life Form

We suggest that the aesthetics of the screen turns the market into a knowledge-based object and that this characteristic accounts for the market's changeability and sophistication (Drucker, 1993; Stehr, 2001a, b). As a result, the contemplated and desired object can never be fully attained by the consumer because it exists only as a sequence of absences; it is never quite itself and any "fixedness" of the object is a temporary moment of stability in a chain of changes (Knorr Cetina, 2001).

This "ontological liquidity" (Knorr Cetina and Bruegger, 2002b) of the market, its capacity to unfold, evolve, change, and morph indefinitely, generating questions that consumers are willing to answer, prompts investors to speak of the market as if it was a living being.

Oliver: The market never stands still and you have to get a grip on what it is up to and you have to have the courage to make decisions in there. The market does not care whether you are not sure or not informed or whatever. Particularly when it starts getting rocky, 40% gains or losses a day, you know, that's when you have to prove that you can do this and that you can work this thing. (31, teacher)

Kenny: You know, the way I see it, the market has its own will. You can't control it. No one can, not even the bigwigs in the banks, you know, although they might think so. It moves and behaves in mysterious ways and all you can do is to sense

where it might be headed next, what it might do next, and basically how big or small it will get.

Interviewer: *And the discussion boards help you there?*

Kenny: Well, it's like I said earlier, in some of these communities you feel like you are inside the belly of the beast and that is where you need to be if you want to get any good and early sense where this thing is moving. That feeling of 'getting it' that you get in the community. If you ask me and that is what keeps me going in them. (42, professor)

Repeatedly individual online investors refer to the market as a "thing" that keeps changing in front of your eyes and tells you what to do. Discerned as an unfolding and morphing structure that reveals and conceals its identity at every step while simultaneously providing and withdrawing cues for investors, the market appears to have a mind of its own (cf. Knorr Cetina and Bruegger, 2002a; Knorr Cetina and Bruegger, 2002b). Investors attempt to position themselves "inside the market" and discover where this "life form" is moving and what it is "up to" next.

Rudolf: Internet is better to get a feel for what the market is up to and what is going to happen next. I believe that the market has ways to let you know its next move but it doesn't make it easy. It's like the market designed this treasure hunt for us and now it's up to us to figure out how to pass all these challenges like Indiana Jones, you know. It gives you hints but also tries to mislead you with false traces so you really have to pay attention to the signals if you want to get the reward. (36, biotechnologist)

For Rudolf the Internet allows him to see the market's true colors, as it were. The market is cunning thing that will not give away its riches easily. To know what is on its mind (Smith, 1981), investors need to get inside the market, show courage, and face up to its tricks. After all, the market is defined as much by the things it conceals as by the things it reveals and it is this back and forth between "knowing it" and anticipating "what it will become" that underlies the investor's fascination with the market. Markets-on-screen "have their moments of fixedness when prices 'lock', but behind such fixed facades they always prepare to mutate, and at times

explode, into something else” (Knorr Cetina, 1997, p. 170). Thus, on the screen, the market is ontologically “opened up” to the investor, visualizing to him or her its ever-changing and unfolding character, its “lack of completeness of being” (Knorr Cetina, 1997, p. 170). Most importantly, the market continuously signals to the online investor what it is lacking and the investor interprets these signals as areas for further inquiry sparking a sequence of exploration, discovery, and more exploration.

The aesthetics of the screen creates a magic market (Sherry, 1990) that comes to life and keeps evolving, shifting, and moving. On the screen, the market may appear to gesture towards one sector for gainful investment when, in fact, the sector is doomed. On the screen, the complex game of investing takes the investor from one corner of the market (screen?) to another, while suggesting new strategies for success. Unforeseen events occur all the time, transforming the face of the market in a blink of an eye and signaling opportunities for new discoveries. Undoubtedly, relative to knowledge objects found on the workbenches of scientists, the market-on-screen may be considered an *accelerated* epistemic object because of the speed with which it changes and the fact that it “never sleeps.” To reiterate, a consumption object is an epistemic consumption object not simply by virtue of its knowledge content but because of its unfolding and morphing nature. The ontological openness of the epistemic consumption object is at least partly the result of the knowledge work of the investor. The irony introduced by epistemic objects is compelling: The more investors learn about the market the more it surprises them. The more investors try to ‘pin down’ the market with knowledge, the less ontologically stable it becomes.

Implication for Consumption Theory

Online investing derives much of its appeal from the interactivity and speed of the medium as well as the ability to digitize the product (e.g., Rayport and Sviokla, 1995; Shapiro and Varian, 1999). Indeed, online investing is arguably one of the most exciting and vibrant online consumption activities providing us with a rich site for developing marketing and consumer theories for the digital age.ⁱⁱ Phenomenologically, the transfer of the market onto the screen situates the online investor simultaneously inside the market – he or she becomes a direct actor in the theater of global finance – and as an exteriorized other, a sort of master-being that observes all transactions (Knorr Cetina and Bruegger, 2000). From both perspectives, the market-on-screen is fascinating not because it maintains a stable state of being, an absolute identity with itself, which the investor can easily grasp and consume. On the contrary, consumer desire is generated by the object’s mutability and complete lack of ontological stability, which fuels the consumer subject’s continuous wish to explore and discover (see also Belk, Ger and Askegaard, 2003).

This is the crux of the relationship between the self and the knowledge object. The self is motivated to continuously anticipate, search for, and relate to the next version that the object hides within itself. The object never stops signaling its unfolding possibilities (the next 40% gain is just around the corner, the next generation in artificial reproduction technologies is going to fix infertility, the next version of MS Office is going to allow X, etc.). In this sense, *both* sides feed and sustain each other fulfilling one condition of a relationship, “which is that it should continue over time and not be reducible to an action or a short experience” (Knorr Cetina and Bruegger, 2002b, p. 178).

Consumer researchers, traditionally focused on the consumer rather than the consumption object as unit of analysis, need to retheorize the consumer object and the object world within the

context of the knowledge society (Stehr, 1994, 2001b). The epistemic consumer object is a valuable analytical tool that consumer researchers and marketers with an inclination for psychological approaches can bring to bear on more traditional concepts such as loyalty, involvement, decision making, and information processing to name a few.

Interpretive consumer researchers may need to reevaluate some of their notions related to identity formation and consumption. Specifically, the type of intimate and ongoing relationship that we observe between investor-consumers and the stock market suggests that the dominant conception of the object world as made up of ‘fixed’, ‘closed-box’ commodities (even as they are semiotically underdetermined) ready to serve consumers for reasons of integration, communication, distinction, and play (cf. Holt, 1995), may no longer accurately describe the full range of motivations for relating to and be involved with consumption objects. Such a consumer-centric position ignores both the ontological variation of an increasing number of consumer objects and the type of postsocial relationship encouraged between such objects and consumers. Consider cultural sites of consumption like the Star Trek spectacle and the Chicago Cubs baseball team (Holt, 1995; Kozinets, 2001). From our vantage point, it is easily conceivable that consumers’ fascination with, and loyalty to, these objects may be caused as much by the epistemic nature of the consumption site (or object) as by the communing and socializing with fellow consumers. In other words, consumers commune and socialize with the object of consumption, generating a formula of “mutual providing” (Knorr Cetina, 1997), which becomes the backbone of reciprocity for the object-centered sociality.

Crucial for this object-centered solidarity to occur is that the consumer recognizes the object of consumption as an object of knowledge because only if the consumer has intimate knowledge of the object, indeed comprehends it as an epistemic object, can she decipher the

signs given off by it to determine what it is still lacking. Hence, what the experiences of Star Trek aficionados and Chicago Cubs fans reveal is that their engagement with the respective consumption site turns the object (the cult, the myth) into a subject with which they can share a lifeworld.

In addition to a need to retheorize the consumption object, our study seems to promote a new look at consumer communities. Communities are typically regarded as the sources of emotional support, companionship, and supportive networks (Fischer, Bristor and Gainer, 1996; Tönnies, 1979). They are the product and producer of non-utilitarian and non-instrumental relationships among its members, a place where people engage in social exchange of ideas, values, and opinions (Bagozzi and Dholakia, 2002; Balasubramanian and Mahajan, 2001). Recently consumer research has discovered consumer communities as an interesting site for exploration, delivering a number of valuable insights about the business of identity construction and sociality within a consumer culture dominated by commodity signs, popular media, and increasingly commercialized forms of belonging (see e.g., Cova, 1997; Kozinets, 2001; McAlexander, Schouten and Koenig, 2002; Muniz and O'Guinn, 2001). Again, what is missing so far is a theorization of the object around which consumer communities form, and the implications for consumer attachment to these objects. If we conceptualize “things” of communal interest such as Star Trek, the Saturn brand, the Chicago Cubs, and Kazaa as epistemic things or objects of knowledge, we might be able to add another dimension to the social relations that are developed and maintained through communal forms of consumption.

Finally, with respect to theories of virtual communities, we suggest that it may be insufficient to focus on the relationships that community members develop with each other, instead of the relationship that individual members form with the primary object of knowledge

around which communities are often built (stocks, diseases, sex, activist targets, companies, brands, etc.). Bagozzi and Dholakia's (2002, p. 3) definition of virtual communities as "mediated social spaces in the digital environment that allow groups to form and be sustained primarily through ongoing communication processes", is a good definition because it includes, albeit not consciously, the possibility for communication processes between the human and the non-human, resulting in what could be called *object-centered solidarity*. Our data would suggest that the "irresistible allure" (Bagozzi and Dholakia, 2002) of the virtual community is at least in certain instances not primarily derived from the interaction with other members, the construction of social identities, and the trying out of new personas, but from the relation developed with the "evolving, epistemic thing" that motivated the founding and continued existence of the community.

We realize that at this early stage of exploration, we can only speculate about the full range of implications of the emergence of epistemic consumer objects for marketing and consumer theories. More theoretical and empirical research is needed to examine the usefulness and assess the worth of the concepts introduced in this paper. In fact, researchers might find it worthwhile to reevaluate results and findings from previous studies with the notion of the epistemic consumption object in mind. The 1989 Consumer Odyssey (Belk, Wallendorf and Sherry, 1989) comes to mind as a potentially rich source for such revisiting, as do Schouten's work (1991) on body alteration and Celsi *et al's* study (1993) of sky diving to name but a few. If we accept the claim that we are currently witnessing the emergence of knowledge societies (Stehr, 1994), we must also assume that the production and consumption of epistemic things will increase, thus fundamentally transforming how the human lifeworld and the object world relate

to each other. Given the central role consumption objects play in marketing and consumer theory, researchers in these fields have a lot to gain from engaging with these emerging ideas.

Conclusion

In this paper we argue that the aesthetics of the screen gives birth to the stock market as epistemic consumption object. The epistemic consumption object is characterized by a lack of ontological stability and can never be fully attained by the consumer because it is never quite itself. On the computer screen the market is projected as a sequence of absences, its ontological object-ivity only an ephemeral moment of stability. The visual logic of the screen is critical in bringing the market to life by providing it with an interactive and response-present face-in-action. On the screen, then, the market's future is always ill-defined, question-generating, and uncertain, thus motivating the investor to continuously observe, analyze, and interact with it. Any analysis of the intimate, enduring, and often intense relationship between individual online investors and the market must at least take this ontological fact into account.

By suggesting that consumer goods increasingly are becoming ontologically indeterminate and emerging entities akin to life forms, we open new theoretical avenues for investigating consumers' relationships with products and brands. As consumers engage in intimate and enduring relationships with consumption objects because of the object's ontological properties, conceptualizing products as passive canvasses with which to extend the self, play, and commune is no longer sufficient. Consumer researchers need to theorize the object itself if they are to approach a more complete understanding of what factors motivate and sustains consumer-object relations.

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1 We acknowledge that objects have been shown to be semiotically indeterminable within a certain range of possibilities. However, we are referring to a different kind of indeterminacy that is not limited to the surface level but rooted in the changing nature of an object's fundamental building blocks.

ⁱⁱ We think here in particular of the play character of online investing generated by the virtualization of the practice by the computer screen. Online investing acquires the characteristics of a video game (see Allen and McGoun, 2000; Zwick, 2003).