

Home Economics

The network economy provides a giant laboratory for experimenting with new ideas for selling products. The e-commerce machine is undergoing evolution and design even while it is in use. For the enthusiast, this is democratic design: Everyone can participate in shaping the digital economy.

The opportunities for e-commerce put the spotlight on the household. The Internet brings the market into the home, the site of mass consumption.¹ Furthermore, the home can be the source of economic production. Apparently, just about anyone can be a cottage entrepreneur. Furthermore, the personal computer is reputedly a home-based invention, with its origin as the covert creation of the back room, the garage, and the workshop, and a significant threshold in the personal computer market was reached when the industry started to regard the computer as a household appliance.²

The domestic orbit of the Internet supports a model of democratic and decentralized free computer software, as in the cooperative, open-source development of the Linux operating system.³ Here software is developed by programmers spread around the globe, with no apparent organization or management. The democratic production of software presents an ideal for the design and development of computer systems. It also bolsters concepts of the free market. According to one commentator, "The Linux world behaves in many respects like a free market or an ecology, a collection of selfish agents attempting to maximize utility which in the process produces a self-correcting spontaneous order more elaborate and efficient than any amount of central planning could have achieved."⁴ I will examine the relationships among concepts of the "selfish

agent,” utility, and design subsequently. Here it is sufficient to point out that the model presented is a domestic one. It appeals to modesty of scale, autonomy, and humble origins, and is against big business.

If the Internet encourages a communal, familial aspect to the design of software, then the Internet, and e-commerce, are also “designing” us. As e-commerce infiltrates every aspect of business and home life, it shapes attitudes, preparing the world for its own growth and expansion. The purpose of this chapter is to align e-commerce with the language of design, and to do so with reference to the sources on which theories of creation draw, as well as the economic literature. The main message of this chapter is that economics, as it is for design and the Internet, is best understood from a pragmatic point of view. That is, we draw on the language of social and interpretive (hermeneutical) inquiry.⁵ It seems that a practical orientation to e-commerce favors metaphors of the household above those of the marketplace, though it also concerns the threshold between the two.

Design versus Economics

The impetus to create is not always in harmony with economics. Digital commerce sometimes engenders distaste among designers. Magazines, self-help manuals, and Web guides advising on how to succeed in business constitute the latest assault.⁶ E-commerce as a discipline and a practice becomes infected with populist overstatement.

The language of the economic crusader proves a very blunt instrument for grasping the subtleties of moral decision making. The economic language of the campaigner does not support the subtleties of moral inquiry. Considerations of ethical consequences appear as an addendum to the economic theories under discussion and are not integral to them. In one e-commerce self-help book the business person is exhorted: “If you don’t use it, embrace it, and immerse your business in it, then the Internet will one day take your customers away from you and your business will die. It may already be doing this.”⁷ As in the earlier passage about the Linux operating system, there is an immediate appeal to self-interest (“selfish agents”). For the enthusiast, there is really no time to question whether this new aspect of the information revolution is a good thing for other people, within the orbit of one’s own business or globally. The important issue is whether or not the business will thrive economically.

On the other hand, the history of design reveals an automatic privileging of the ethical among designers. The simplest claim of design is that designs meet people’s needs. To create is to serve people, and in so doing enter the moral

sphere of needs, wants, desires, appropriateness, and justice. When the created object enters the economic sphere, when it is traded, bartered, or sold, then the economic system enters the frame, sidelining issues of justice, which have to be forced back into the picture. Putting it crudely, from the point of view of dominant design narratives, creation is noble; making money is vulgar.

I will later dismantle this distinction, but it is worth examining it here as a means of opening up further understandings of design in the network economy. As outlined in the introductory chapter, such oppositions provoke inquiry.

The idea of self-interest as the primary motivation for commercial activity is generally attributed to Adam Smith, the eighteenth-century Scottish philosopher and political economist. In *The Wealth of Nations*, Smith explains how we need each other's help in society, but we cannot expect it by appealing to good will. We have to interest our potential collaborators, benefactors, and providers by appealing to their own interest and show them that it is to their advantage to do for us what we require of them.⁸ For Smith, we need to "address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages."⁹ So we pay for what we need, and we encourage the provision of goods and services by ensuring that the providers can make a profit by it.

But Smith's model of economics has its antagonists, particularly among the Romantic writers of the nineteenth century who claim territory in the realm of design. It is the elevation of self-interest as the motivation for commerce that seemed to offend the romantics the most. In "Unto This Last," a polemical essay against the nineteenth-century industrial order, John Ruskin claims of Smith's model that it presents people as "actuated by no other moral influences than those which affect rats or swine."¹⁰ The economist inverts the natural ordering of the human virtues by assuming that the socially beneficial qualities, such as altruism and honor, "are accidental and disturbing elements of human nature; but avarice and the desire of progress are constant elements."¹¹ In a mocking tone, Ruskin suggests the association of free-market economics with particular personality types: "In a community regulated only by laws of demand and supply, . . . the persons who become rich are, generally speaking, industrious, resolute, proud, covetous, prompt, methodical, sensible, unimaginative, insensitive, and ignorant. The persons who remain poor are the entirely foolish, the entirely wise, the idle, the reckless, the humble, the thoughtful, the dull, the imaginative, the sensitive, the well-informed, the improvident, the irregularly and impulsively wicked, the clumsy knave, the open thief, and the entirely

merciful, just, and godly person.”¹² Under Smith’s regime those of a temperate nature tend toward riches. The interesting and creative people are prone to extremes and to poverty. As I will examine in chapter 5, such people are also aligned with trickery. The creatives are the liminal dwellers, the edgy designers who occupy the threshold between social order and confusion.

The derogatory conflation of economics as a study with the actual practices of dealing with money matches Thomas Carlyle’s identification of economics as the “dismal science.” In advocating “letting men alone,” Smith’s philosophy of laissez-faire holds the promise of a “gay science.” On the contrary, for Carlyle economics offers “a dreary, desolate, and indeed quite abject and distressing one.”¹³ It is not only that the study of economics is dull, but it has dispiriting consequences, particularly if seen as a way of justifying slavery, or validating the grim misery of working conditions in industrial England: “In the midst of plethoric plenty, the people perish,”¹⁴ a claim no less relevant under the charge of inequality promoted by unfair trade agreements, the policies of the World Bank, and the domination of small nation states by the powerful.

So in the formative years of the industrial revolution, the battle line is already drawn between the science of economics and the promotion of art. It is a war between self-interest and altruism. It is also perhaps a battle between those claiming authority through an appeal to hard-nosed empiricism (Smith was associated with the Empiricist philosopher David Hume) and those grounded in a first-person idealism. The battle is a variation of the conflict between the objectivism of the Enlightenment and the subjectivism of the Romantics. These polarities define a space in which other oppositions are acted out: popular culture and art, entertainment and education, Hollywood and film house, New Ageism and philosophy, manga and fine art, cyberpunk and civil society, and the transgression of one into the territory of the other. It is also a battle between the Stoics and the Platonists.

The Market Edge

The marketplace features as a major metaphor for the network economy, and is already characterized by an edge, or perimeter condition. In addition to *The Wealth of Nations*, Adam Smith is known for his important book *The Theory of Moral Sentiments*, in which he surveys the contribution of the ancients to an understanding of morality, calling substantially on the authority of the Stoics for his justification of a life of “self-command.”¹⁵

The market connection is obvious. The Stoics took their name from the *stoa*, the colonnade that surrounded the marketplace, or agora, of ancient Athens, where Zeno of Citium (ca. 300 BC), the founder of the movement, would instruct his students.¹⁶ This architectural association between Stoicism and the physical place of exchange may have escaped Smith's analysis, but it furthers his case. Stoicism appears as an early theory of the market and, for Smith, of the free market. The network economy trades in market metaphors. Appeals to ancient Greece, the electronic agora, suggest democracy, people power, a noisy commerce in both goods and ideas, an electronic b@zaar.¹⁷

Like many metaphysical systems, Stoicism appealed to the power of a divine unity. For Plato (to be considered subsequently), the unity abides beyond earthly existence, but for the Stoics this unity is in the world around us. This Stoic pantheism presents the world as a unitary system. The Roman emperor Marcus Aurelius, one of the Stoic writers on whom Smith draws, describes this unity in terms of a single organism: "Always think of the universe as one living organism, with a single substance and a single soul; and observe how all things are submitted to the single perceptivity of this one whole, all are moved by this single impulse, and all play their part in the causation of every event that happens. Remark the intricacy of the skein, the complexity of the web."¹⁸ This proposition is echoed in much New Age populism and is ever present as a common description of the network society.¹⁹

Occasionally Smith describes this unity as "the whole machine of the world,"²⁰ which comes close to a premonition of "the capitalist machine," to be examined in chapter 2. But the appeal to a world unity is to exhort us to know our place, and therefore to be content with our lot. A stoical attitude to losing a job, hardware failure, or corrupted files is one of forbearance. If we elect to complain about our current condition, then we breach the moral order. To complain shows lack of wisdom in two ways. First, it appears as an attempt to deny the natural pattern of interconnections, the pre-ordained order of the universe. Second, it suggests that, if I complain, then as one recalcitrant fragment I am denying my place in the universal scheme of things. It is easy to see how stoic naturalism led to Smith's advocacy of laissez-faire and the primacy of self-interest. For Smith, Stoic doctrine explains that "every animal was by nature recommended to its own care, and was endowed with the principle of self-love."²¹ For Smith, though we are motivated by self-interest, it is "our own final interest considered as a part of that whole, of which the prosperity ought to be,

not only the principal, but the sole object of our desire.”²² So self-interest should be characterized not as a disregard for others but as our primary contribution in caring for the whole. It follows therefore that we should be stoic in the face of economic failure, as well as success, in light of a consideration of the bigger picture. Smith describes the Stoic attitude as follows:

A wise man never complains of the destiny of Providence, nor thinks the universe in confusion when he is out of order. He does not look upon himself as a whole, separated and detached from every other part of nature, to be taken care of by itself and for itself. He regards himself in the light in which he imagines the great genius of human nature, and of the world, regards him. He enters, if I may say so, into the sentiments of that divine Being, and considers himself as an atom, a particle, of an immense and infinite system, which must and ought to be disposed of, according to the conveniency of the whole. Assured of the wisdom which directs all the events of human life, whatever lot befalls him, he accepts it with joy, satisfied that, if he had known all the connections and dependencies of the different parts of the universe, it is the very lot which he himself would have wished for.²³

The consolation to economic hardship is that if only you knew how your misery fits within the complex ordering of the universe, you would not have wished it to be otherwise. Insofar as Stoic free marketeers promote the care of the underprivileged, they encourage the poor to participate in a regime of “self-command,” to enable them to enter the free market, which is the foundation of many “back to work” schemes to wean people off state welfare.²⁴ The stoical attitude also emerges in accounts of the inflation of the dot-com “bubble” and its subsequent implosion. With a mind to the bigger picture, the network economy promotes entrepreneurial and investment risk. After the event, it reflects that the bigger picture was not so rational after all: “behaviour that seems rational at the individual level can lead to collective insanity.”²⁵

There is an element of Stoicism in the bureaucratization often perpetrated through network communications. Though he does not make direct reference to the Stoic connection, the resigned attitude becomes the cornerstone of Max Weber’s account of Protestant asceticism as the basis of capitalism. The acquisition of wealth under early capitalism presented as an opportunity to be a wise steward of God’s riches rather than a means to greater comfort, luxury, or display. The spirit of capitalism is revealed in the stoic industry of the studious bookkeeper rather than indulgence in conspicuous consumption. For Weber,

this asceticism has subsequently lost its religious basis, and capitalism becomes hollow and meaningless in the industrial age. As identified by Ruskin, advocacy of self-interested free enterprise does not necessarily accompany profligacy, an excessive enthusiasm for the good things of life, but indicates a drear, miserly, and perhaps hollow attitude. It seems that those most able to acquire wealth by this means are least equipped to enjoy it. Whether or not this is empirically the case, market critics gain satisfaction from identifying the mediocrity of the vulgar nouveau riche and the popularizers, including the profiteers of the information revolution, entrepreneurs who benefit from free-market opportunism.

If Stoicism bolsters bureaucracy, it also provides theoretical support for empire. Stoicism in various guises was the dominant philosophy of Rome at its height. The Roman philosopher, Seneca, also despised the show of wealth: “We have enslaved our souls to pleasure, indulgence in which is the beginning of all evils; we have betrayed them to ambition and public opinion, and everything else which is equally empty and vain.”²⁶ Even contempt for luxuries is not enough: “What virtue lies in despising superfluities? You can admire yourself when you have come to despise essentials.”²⁷

Vitruvius, the Roman theorist of art and design (before design was recognized as such), operated within the Stoic tradition, counting the Stoic emperor Marcus Aurelius among his patrons. Vitruvius asserts: “I have never been eager to make money by my art, but have gone on the principle that slender means and a good reputation are preferable to wealth and disrepute.”²⁸ This apparent disregard for riches is consistent with the Stoic view that the wise person must bear up and do without.²⁹ In keeping with the Stoic enthusiasm for the interconnection of all things, the architect is to be educated in drawing, geometry, history, philosophy, music, medicine, law, and astronomy.³⁰ The unity of nature is to provide the model for the unity of architecture. As the parts of the human body are proportioned with regard to the whole frame, the parts of buildings are to be harmoniously ordered,³¹ and the classical orders derive from the “truth of Nature.”³² Vitruvius’s account of the art of making is dour: a practical architecture devoid of excess or even poetry.³³ Knowing your place in the universe apparently provides little scope for flights of fancy, or design at the edge.

Smith’s few accounts of the act of creation are also utilitarian, focusing on the successive substitutions of menial tasks by machine, the expansion of the division of labor. Smith gives the apocryphal account of the boy whose job it was to manually open and close the valves that regulated the power for a steam turbine.³⁴ It occurs to the boy that a machinic intervention could do the job just as

well. By tying a piece of string to the valve, the operation of another part of the machine could be used to open and shut it. It seems that as we become more specialized, our work becomes more machine-like and a machine substitution becomes a possibility. As extensively catalogued in Rifkin's *The End of Work*, it is the production-line workers, those whose labors are at the lowest level of the division of labor, who are most under threat from this process.³⁵ Their labors are the most easily substituted by the labors of others, and by increasingly sophisticated machines. Computer automation now provides further substitutions, this time at the level of the intellectual worker. As I will show in chapter 2, this implicit model of invention as the successive division of labor resonates with the models of those theorists of the 1950s and 1960s (the design methodologists) who tried to show that design could be treated as an ordered and even scientific process, the subsumption of all invention under the rule of the machine, first material and now electronic.

The Stoic legacy is also evident in contemporary concepts of the e-entrepreneur. In the manner of the Vitruvian architect, the entrepreneur dabbles in many disciplines, seeing them as potentials to be mined for ideas and opportunities. Though there is no despising of riches, the e-entrepreneur also operates in a climate of risk taking, where failure has to be taken on the chin.

Against Grime: The Academy

Debates about network economics and the impulse to create already involve various positions commonly described as idealistic, which are apparently removed from practicalities. If the Stoics had their place at the perimeter of the marketplace, the students of Plato (429–347 BC) are associated with the rarefied world of the academy, away from the confused and sensual delights of the bazaar.³⁶ There is a crucial difference between the theories of the Stoics and the Platonists. For the Stoics, we are participants in a natural unity. The universe that we see and experience is the unity. But for Plato, the unity resides beyond our universe, in the realm of ideas, designated as the realm of the Intelligible.³⁷ For Plato, we inhabit the fickle and transient world of the senses, where we are presented with things as they appear rather than as they are in their essence; and appearances can deceive. Of course we can aspire to transcendence above the world of the senses, and it is the task of the wise to advance to the source of illumination, the emanation of the Intelligible. The Romantics, such as Coleridge, Wordsworth, and Ruskin, were Platonists, and idealists, insofar as they appealed to the high ideals of honor and sacrifice, as essential human character-

istics, over and above the incidental or even aberrant property of self-interest, the latter being associated with the (instant) gratification of the senses. The idealist, or Platonist, is therefore happy to associate the earthly realm where the bodily senses are in full operation (“the sensible”), with the crass world of base pleasures, commerce, and self-interest. The higher plain of ultimate reality and transcendent unity is home to nobler instincts such as honor, duty, self-sacrifice, and creativity.

Plato provides an early injunction against the rule of the mass market in these terms. The taste of the masses is governed by the immediate concerns of self-interest and gratification. No one would submit to the judgment of the multitude “a poem, or a work of art or some other service he would render to the state, thus going out of his way to make the public his masters, without falling under the fateful necessity to give them whatever they like and do whatever they approve.”³⁸ The public cannot recognize essence, that is, what is really beautiful or really good. The majority will never be philosophers, who are the ones best equipped to contemplate the beautiful and the good. Ideas are always corrupted by the sensible, which is to say by contingency. The closest ancient Greece came to participating in popular music, television, and computer games was the enjoyment by the multitude of dramatic poetry, which, according to Plato, appeals to the emotions, the lower aspects of the soul. The higher aspects of the soul relate to reason.³⁹ Poetry that appeals to the emotions is deceptive and the furthest removed from reality. Poetry is also removed, as is art, from reality in that it constitutes a mere representation of a representation. The skilled craftsman, the carpenter who makes a bed, or the craftsman who makes a horse’s bridle is closest to the reality. What each one makes is a copy of the archetype, the one true bed or bridle resident in the realm of the ideal. The painter merely copies the crafted object, or the poet describes it. Plato had no time for poets and less for those who played on the emotions, what for us today constitutes the appeal of mass media sensationalism and sentimentality. The hyperbolae of e-commerce evangelism offends the contemporary Platonist insofar as it appeals to emotive argumentation: anxiety at not keeping up, lust for ostentatious pleasures, fear of losing customers, the desire for control. For the same reasons, contemporary idealists also have difficulty coming to terms with the fact that they may be designing for a mass market, whether in bricks and stones⁴⁰ or bits and bytes.

Contemporary theorists of popular culture identify the complex relationship between high and low culture, the received taste of the elite and the marginalized preferences of the masses, who ostensibly have less power, though some

scholars have identified pockets of populism that are driven by an impetus to appropriate what is offered by literature and the mass media, to adapt it to one's immediate concerns, as a means of empowerment.⁴¹ This is exemplified in the fan cultures surrounding various television programs and movies. On a similar theme, Penly writes of fans appropriating and adapting products of the popular media for their own uses, such as turning the *Star Trek* stories into erotic novels.⁴² By this reading, power is exercised and undermined by negotiation through the categories of high and low, a process increasingly abetted by the Internet, which encourages cultural pillage and appropriation.

Leaving aside these edgy incursions, Platonic idealism finds many instantiations in the history of art and design, including in the appeal to idealized forms. For the modernist architect and painter Le Corbusier, architecture is a matter of exploring forms in light, a philosophy exemplified in much modernist design: "the masterly, correct and magnificent play of masses brought together in light . . . cubes, cones, spheres, cylinders or pyramids are the great primary forms which light reveals to advantage."⁴³ The appeal here is to the truthfulness of the forms, and their illumination, as opposed to the kind of design that panders to "brutal instincts" through the whims of mere style and ornament.⁴⁴ Product design, from sewing machines to laptop computers, is no less inclined toward this formal idealism.

Le Corbusier was a champion of mass production, but idealism is also manifested in the anti-industrial argumentation and aesthetic of his restless forebears, the Romantics, those who sought to counter the forces of mechanization, to rehabilitate the emotions and bring them into the game of transcendence, through ornament as much as form. For Ruskin, the "function of ornament is to make you happy."⁴⁵ This pleasure resides not in human creation, the supposed classical perfection⁴⁶ of the Doric, Ionic, and Corinthian orders, as outlined by Vitruvius, but in representing nature's order. Ruskin delighted in ornamentation based on humans and animals, progressing to the increasingly abstract shapes of nature, then to ornamentation based on the simple line,⁴⁷ the purest of formal elements, but grounded in nature. Ruskin's aesthetic brings to mind pre-Raphaelite paintings, the subsequent stylistic flourish known as "art nouveau," and the sinuous curves and folds of contemporary digital organicism, sometimes referred to disparagingly as "blob" architecture.⁴⁸ Ruskin's philosophy accords with the romantic version of idealism, with human subjectivity as the motive force to transcendence. We transcend this world by giving rein to

feelings, particularly those that ennoble us by drawing us toward the beautiful and the sublime. Plato's realm of the supra-individual Intellect becomes the site of intense subjectivity, a glorified state of mind.

Ruskin's much vaunted "naturalism" is less a pantheistic celebration of the oneness of nature (as expounded by the Stoics) than a means to defining the hierarchical territory of an emotional grand tour, a pilgrimage of the passions. So Ruskin's description of St. Mark's in Venice is a play on the emotions at the same time that it is an exercise in ecstatic release from the constraints of earthly and sensible grounding. We progress from the narrow alleyways of the city "resonant with the cries of itinerant salesmen" to the transcendence of glittering pinnacles and confusion of delight: "until at last, as if in ecstasy, the crests of the arches break into a marble foam, and toss themselves far into the blue skies in flashes and wreaths of sculptured spray."⁴⁹ Ruskin's celebration of hybridity, a sensibility to the chaos of the bazaar, the conjunctions of disparate trades, also takes on a transcendent aspect. The façade of St. Mark's is a "shrine at which to dedicate the splendour of miscellaneous spoil."⁵⁰

Apart from his quest to rise above the grime of the market, Ruskin's Platonism comes through most strongly in his final appeal to honor. Contrary to Smith's appeal to self-interest is Ruskin's demand that we do good because it is morally right and honorable, absolutely. It is our highest calling. In this the Romantics are at further odds with Stoicism.

The idealist position comes under attack from Marx. I will reserve an account of the Marxist critique of idealism and ideology for chapter 2. The Platonic legacy in the realm of computer systems design is palpable in many ways, not least in the quest for a transcendent cyberreality, where enthusiasts make claims toward a brighter digital future while ignoring the current failings of technology. Technological optimism places a high premium on concepts of the future as fulfilling all that is deficient in the present. I labor this point elsewhere.⁵¹ It is also a theme taken up with ambiguous endorsement by Wertheim in her aptly named book *The Pearly Gates of Cyberspace*,⁵² with Dante's *Inferno* as its defining narrative. Dante's narrative is of a hierarchical universe, and Neoplatonic progression to a divine reality, comparable in some ways to the quest for cyberspace. The move into cyberspace is seen by some as a release from the body to a transcendent unity beyond our current existence.⁵³ It is a release to the world above the grime of the marketplace, even beyond the sculptured spray of spires and finials.

Lifestyle and the Garden

The network economy aspires to “the good life.” The promise of “lifestyle” improvement sells furniture, clothing, grooming, and health products. In this the network economy draws on aspects of the Epicurean legacy. Our exploration of the architecture of economics needs to be extended to a consideration of the garden. If the Stoics inhabited the fringes of the marketplace, and the idealists the rarefied world of the academy, then the Epicureans were the Philosophers of the Garden, so named after the garden that formed the center of the school founded by Epicurus (341–270 BC). The name accords with the school’s interest in the cultivation of refined taste, the subtle predilections of the connoisseur. We commonly associate Epicureanism with advocacy of the good life, as portrayed in lifestyle magazines, television programs, designer furniture, advertising, the leisured aspects of Internet culture, and self-help guides to health, fashion, home decoration, and dating. This pedagogy in sophistication and enjoyment is not far from the grounding of the Philosophy of the Garden in materialism.

An acknowledged source for concepts in modern physics, the Philosophers of the Garden developed the conviction that all things are made of microscopic particles, atoms, which have known propensities. When we die our bodies dissolve back to these particles. For the Epicurean there is no realm other than the sensible, the earthly realm that is perceived by the senses. For the Epicurean, wisdom comes through appreciating that there is no appeal to “higher ideals,” eternal reward or punishment. After death we are in the same state as before, which is that of non-being. But far from instilling a mood of pessimism, or denying all meaning and hope, the Epicureans set their sights on enjoying the here and now. Since there is nothing other than the material world, we need not fear death or the retribution of the gods: “The man who has truly comprehended that there is nothing terrible in ceasing to live, has nothing terrible to fear in life.”⁵⁴ Without recourse to the ideal realm, we fall into considerations of the senses. We decide the good from what is around us. The quest is to maximize pleasure and to diminish pain, “taking the feeling of pleasure as our guide.”⁵⁵ We may as well party while we can.

Apart from any injunction to recklessness, Epicureanism also engenders a sober keeping of accounts. The social philosopher Jeremy Bentham at the start of the nineteenth century was content to attribute his concepts of utility to Epicureanism.⁵⁶ Pleasure and pain exist on a continuum, as if on scales. We always strive to weight the scales in favor of pleasure. There is no injunction to unrestrained indulgence. Excesses do not give pleasure in the long run. Nothing is

wrong in itself, but we must think of the consequences. The Epicureans extolled the virtues of a simple life, with few possessions, and moderation. Unlike the followers of Plato, who thought there was some ideal state transcending current circumstances and to which they could aspire, there was little incentive among Epicureans to be involved in civic affairs. They were enjoined to live unnoticed, a position easily taken for apathy.

The network economy enjoys three major inheritances from the Epicureans: materialism, utilitarianism, and concepts of leisure. Materialism maintains that there is no divinity or spirit, and it finds ready expression in arguments that seek to subordinate concepts of mind, thought, spirit, and soul to considerations of matter, exemplified in Dennett's accounts of the mind as software running on the hardware of the brain, and from which it may possibly be extricated.⁵⁷ Economic materialism ostensibly places value on material possessions and the comforts they provide, above meaning or ethical value, and arguably finds support in Epicurean materialism. But utilitarianism also introduces the prospect that issues of morals can be decided on the utility of certain actions. Epicureanism has also become synonymous with a lifestyle built on pleasure and hence leisure, and it has an affinity with the idea of simplicity and sophisticated taste. The latter involves tranquility of mind, where we do "not have to wander as if in search of something missing, nor look for anything to complete the good of mind and body."⁵⁸ In the network economy, tranquility readily gives way to frenzy. Such is the state of the vexed Epicurean mindset in the contemporary network economy.

The economics of Smith and Bentham, and by implication Stoicism and Epicureanism, have weight in modern economic theory, each owing much of its elaboration to the writings of the nineteenth-century libertarian philosopher John Stuart Mill.⁵⁹ Discourses on electronic commerce seem to draw on both Stoicism and Epicureanism, and both fit comfortably within a frame of reference that could be construed as rationalist: the extremes of the so-called economic rationalism of the twentieth-century economist Milton Friedman⁶⁰ and contemporary advocates of unregulated markets; so too the celebration of the Internet as the ultimate free-market environment. Of course Benthamite utilitarianism has given the world of design the grim legacy of the Panopticon, a naïve form of architecture apparently configured on the grounds of pure utility, which offers a kind of social control.⁶¹ By contrast the word "design" now finds ready association with the apparent converse of dreary conformity, a simple and subtle architecture of the connoisseur. The modernist legacy of design presents itself to mass media strategists, including those of the network economy, in terms of

free-market Epicureanism: simplicity, utility, and sophistication. This is a kind of cool that, in the network economy dominated by sensationalism, public inquisition, Big Brother evictions, and personal improvement, is more like a fever.

The Household

Mainstream broadcasting promotes a thirst for the living space of the other, encouraged by surveillance cameras and supplemented by audience feedback on the Internet, Web diaries, and webcams. But the network economy arguably originates from the home.

The Romantics advanced resistance to early economic rationalism in much the same way that Platonic idealism resisted the Stoics and Epicureans. But the academy offers resistance on another front, through Plato's student Aristotle, whose philosophy it is accurate to attribute not to the bustle of the marketplace, the isolation of the academy, or the pleasures of the garden, but to the complex familial relations of the household.⁶² Whereas Platonism presents the world as a pale shadow of the inaccessible divine unity, the Intelligible, for Aristotle the divine order is attainable. Things are moving toward their full completeness, and human beings may after all attain the good life.

In a famous passage of the *Nicomachean Ethics*, Aristotle outlines the chief intellectual virtues. *Episteme* is scientific knowledge, which, in keeping with the tenets of idealism, is eternal and unchanging. *Techne* is artistic or technical skill, bringing something into being, arguably the preserve of invention and design. At the highest end of the chain of virtue lies wisdom, *sophia*, the apprehension of all the virtues, with *nous*, raw intelligence or intuition as "the state of mind that apprehends first principles."⁶³ But the pivotal virtue is *phronesis*, practical wisdom, the exercise of prudence, the ability to balance rules, the ability to apply the right rule to the right situation. Aristotle identifies prudent people as "those who understand the management of households or estates."⁶⁴ So it is fitting to identify the household as the site at which prudence is best exemplified. Prudence resides between art and science, "reasoned and capable of action in the sphere of human good."⁶⁵ Prudence is acquired by experience and is the chief estate of political science. Aristotle's account of the city, the *polis*, begins with an understanding of the relationships within the household,⁶⁶ those of husband and wife, parents and children, masters and slaves. In fact "economic science" and "household management" provide alternative translations of the Greek word for economics, *oikonomia*.⁶⁷ *Oikos* means house; *nemein* is "to manage." By this reading, the network economy derives from the home, and is not entirely

alien to it, though the economic tradition draws away from its origins in husbandry and habitation.

In his survey of the legacies of the ancients, Adam Smith gives an account of Aristotelian prudence but diminishes its importance by describing it as “the habit of mediocrity according to right reason,”⁶⁸ and demonstrating its subservience to the Stoic virtue of “self-command.” Under Smith, economics seems to lose its association with domesticity.

The theory of prudence has been adopted and elaborated by the hermeneutical writers such as Hans-Georg Gadamer and Martin Heidegger before him.⁶⁹ It is also a common theme in contemporary writing in sociology and in social economics.⁷⁰ Prudence, interpretation, practice, and application point to the rule-resistant spheres of the human sciences, the realms of human action. It is appropriate to think of prudence in the case of the management of a household, as it is in the home that the complex of social relations is most resistant to an understanding in terms purely of self-interest, and hence free-market economics.⁷¹ The web of relationships within the family, kinship ties, and interactions are more complicated than suggested by monetary transactions (exchange) and legal contracts. The point is made well by certain social economists. According to Godolier: “Whether in the sphere of kinship or politics, there is always, in every human activity if it is to become constituted, something that precedes exchange and in which exchange takes root, something that exchange both alters and preserves, extends and renews at the same time.”⁷² So develops the concept of the “economy” of the gift, a primordial mode of interaction between people that economic exchange depends upon, and with which it is in a dialectical relationship. The establishment of a science of economics is inevitably frustrated by that which falls outside the economic system: the black market, bribery, theft, scalping, piracy, and systems of transaction that do not seem to require a determination of monetary value, or more benignly systems where things are given away for nothing. There is a conflict between giving and selling. Each system disturbs the other.

As indicated earlier, the Internet demonstrates the intriguing property of encouraging some individuals to give goods and services for free. In terms of Smith’s free market, the gift appears as yet another kind of economic transaction. Gifts act as inducements to buy. We use gifts to develop a clientele. If we give then we expect to receive in return. But the giving of gifts also seems to work outside economic systems. It provides a bond within a family and a community. It is a way of gaining admission and developing trust. The gift fits

within a complex of social relations. The gift works against regulation and contract; if there are rules then they are unwritten.

From Ruskin's point of view, the Internet gift economy is perhaps analogous to the conduct of a team of artisans. The claim to participation in the gift economy is a variant of the general claim that the Internet represents a return to a craft culture, tribal life, a holistic, authentic mode of being. For the romantic the gift also invokes concepts of sacrifice. Of Ruskin's "seven lamps" of architecture, the first is sacrifice, "the offering of precious things, merely because they are precious, not because they are useful or necessary."⁷³ Sacrifice is "the opposite of the prevalent feeling of modern times, which desires to produce the largest result at the least cost."⁷⁴ Ruskin writes about the self-sacrifice of the soldier, who in the face of battle has only his death and duty in front of him. He will "die daily."⁷⁵ For Ruskin, similar commitments to duty above personal interest apply to lawyers, physicians, and clergy. From this commitment to duty, it follows that workers should receive equal wages irrespective of the quality of their work. Their reward is to be employed and to be chosen for their work. This assumes the operation of a kind of "economy" of mutuality and honor. Smith's economics assumes the merchant or manufacturer is only after profits. According to Ruskin, these professions need to be rehabilitated. Merchants provide sustenance. This is their higher calling, but what will they die for?

Of course, Ruskin's idealism carries many of the errors of the economic rationalists in ignoring the complex of social relations that provides the context of our exercise of prudence. The practice of gift giving is not captured only in the lofty ideals of sacrifice, with its appeal to intrinsic value. The appeal to sacrifice seems quaint in the digital age and appears in only diminished form in Internet gift culture. The concept of sacrifice suggests the operation of an isolated individual and perhaps bears the sign of a grievance: I sacrificed my time and energy developing this software, and now someone else is making a profit from it. The gift in the network economy seems driven by a sense of community formation rather than sacrifice.

Design makes ready claim on Aristotelian prudence. Any invention occupies the unsteady position between the rule and its application, ideas advanced in the area of design by theorists such as Schön.⁷⁶ But design is not only the preserve of a Ruskinian idealism. In the grand spectrum of exchange for money versus the exchange of gifts, or economic rationalism versus situated action, in an Aristotelian sense, design belongs on the side of the gift.⁷⁷ It is also grounded in the philosophy of the household. I will examine the gift in greater detail in chapter 4.

Conclusion: Four Positions

The discussion in this chapter has focused on four sites in which design and the network economy are in play. The stoa (marketplace or agora), the academy, the garden, and the household are material places, but they are also spaces in which various theoretical positions materialize.

The electronic agora promotes conceptions of the network economy, in its traditional and pioneering aspects. E-commerce claims several innovations in the way we make commercial transactions.⁷⁸ The environment in which we buy and sell is integrated into the same workstation where we communicate (email), type our reports, browse, and recreate. The agora comes to the consumer. There is the promise of the customization of goods and services. Through smart online software, it is becoming relatively inexpensive to customize the design of a product and link this to manufacture and supply. There is the much-touted “pull” phenomenon. You can make the advance to potential suppliers rather than waiting to be told what is available, or waiting to have them “pushed” to you. Consumers can be put in touch with one another to exchange goods with little mediation. The e-commerce marketplace is inexpensive to access and is relatively unregulated at the moment, which means that it is a fairly simple matter to experiment with marketing ventures and strategies.⁷⁹ The Internet marketplace stretches across the globe, so it is possible to see what goods are available at sites otherwise inaccessible, to compare prices, and even to make purchases independent of import and export controls. This suggests a further globalization of commerce. In turn the economic aspects of the Internet seem to be challenged by the persistence of free software and data and the willingness of people to provide certain data, goods, and services without considering payment. These and other developments have been explained by some as an elaboration of the ideal of unregulated free enterprise, the language of the ever-expanding marketplace, the philosophy of the stoa.

The academy also furnishes us with metaphors that find elaboration in the network economy, including basic prejudices about popular culture.⁸⁰ The academy’s investment in a unity beyond our current condition motivates the enthusiasm for the Internet as a medium for transcendence, a means to a better society.

The metaphors of the Epicurean garden are also suggestive and perhaps give an account of aspects of advertising and the mass consumption of the good life. Along with other aspects of the mass media, the World Wide Web provides ample opportunity to promote consumption as a means to pleasure, health, and

well-being. The Internet also supports Epicureanism's utilitarian dark side, that of social control, relentless surveillance, and scrutiny via CCTV and webcams, though both come together in popular voyeuristic TV programs that fuse surveillance with lifestyle.

The metaphor of the household already has a stronghold in digital narrative: the Internet as cottage industry, the origins of personal computing, home working, the practices of noncommercial collaborations. The household also supports the practical virtue of *phronesis*, the prudent exercise of the faculties of interpretation, which have ready application in a critique of digital commerce.

If the Stoics were of the marketplace, the idealists of the academy, the Epicureans of the garden, and the Aristotelians of the household, then the school of philosophers known as the Cynics were the vagabonds on the street, the itinerants, the beggars, the homeless, the dispossessed, the peripatetic philosophers against home-bound metaphysical systems. In terms of the gift the cynic is dependent on the handout. Narratives validating the Internet also trade in metaphors of the wanderer, leading me in chapter 5 to consider the bricoleur, trickster, or thief and her relationship to edgy design and the digital economy.

This chapter has served as a polemic on the theme of the household as a basis for understanding the network economy. I exaggerated the problem of the relationship of design to economics as a starting point. We have aligned e-commerce with the language of design by indicating their common legacies. The main message of this chapter is that economics, as it is for design and the Internet, is best understood from a pragmatic point of view, with recourse to the language of interpretive or hermeneutical inquiry. A practical orientation to the network economy favors metaphors of the household above those of the marketplace.