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Anticipation and Divination of Technological Culture: Dialectic Images of the Internet in Emerson's *Nature*

Abstract: The article presents certain aspects of the Internet (interface design, user behavior, advertising, codes of conduct) as new incarnations of the American pastoralism, defined in terms derived from literary criticism and history of American literature. The rationale of this procedure is provided in terms of “dialectic images,” which are old pieces of imagery that seem to anticipate subsequent technological and social developments. Of particular importance is the set of dialectical images derived from Ralph Waldo Emerson’s writings, and the pastoral descriptions of nature derived from various American poets and fiction writers. Arguably, dialectic images of the Internet offer an opportunity for a better understanding of contemporary development of the Internet, and its possible future.

Keywords: Internet, technological culture, pastoralism, Ralph Waldo Emerson, *Nature*

Literature of mid-nineteenth century, especially in France and England, features numerous examples of anticipation of social response to technological advances which were nascent or absent at the time: culture, about to be dominated and defined by technology, anticipated its future rituals, ideas, and customs, which are common in our time. Many such phenomena were described by Walter Benjamin with reference to Jules Michelet’s famous metaphor of the dream. Proclaiming that “each epoch dreams the one to follow” (qtd. in Benjamin 4), the French historian pointed out the unpredictable and incomprehensible nature of historical developments, whose narrative sequence can only be recognized afterwards, in a flash of understanding which Benjamin described as the dialectic image, and which is similar to Georg Simmel’s concept of image of historical moment (Bensmaïa xii). Humphrey Jennings, in a theoretical preface to his *Pandaemonium*, a collection of excerpts about the Industrial Revolution in Britain, calls these images “symbols for the whole inexpressible uncapturable processes” (35). The present article will discuss an American example of such anticipation in the writings of Ralph Waldo Emerson, and reverberations of his thought in American fiction and poetry of the twentieth century, especially in the continuations of American pastoralism in twentieth-century fiction. The present discussion will focus on divination

of the Internet in Emerson's idealism. It is well known that his triple division of signs concentrated on nature (Emerson I, 18; Voelz 87). Words, as signs of natural facts, belong to people, since they had not yet learnt to belong to language, but nature does not belong to people. Since words were signs of natural facts, and natural facts were signs of spiritual ones, the progression seems to lead away from people, but as the progression makes a circle from the big spirituality of over-nature back to internal spirituality of people. Below, this progression will be analyzed as a dialectical image of the Internet.

There are generally two types of critical discussions of literary texts as anticipations of future history. Science fiction criticism mostly focuses on conscious prophecies, sociological speculations, and the use of future histories as imagery for representation of a myth (Franklin 12; Lem II 58; Wagar 34). The present discussion focuses on unconscious anticipations of the future presented in dialectical images, discovered in old documents, and discussed because of their uncanny similarity to the present attitudes and ideas. Early collections of such discoveries, accompanied by seminal theoretical chapters, were presented by Benjamin, Jennings, and Lewis Mumford, but there are earlier and similar attempts in classic Marxist works, and in Georg Simmel's sociological essays. Benjamin provides a prominent and instructive example of the illuminating image in *The Arcades Project*, when he presents an idea from Charles Fourier's utopian writings as an anticipation of the radio and, more generally, of mass media and show business:

Fourier would like to see the people who serve no useful purpose in civilization those who merely gad about in search of news to communicate-circulating among the tables of the Harrnonians, so as to keep people free from losing time in reading newspapers: a divination of radio, born from the study of human character. [W15,5] (Benjamin 645)

Thus, a careful observation of the human character in the nineteenth century allows for divination of the ways in which future societies will change under influence of new technologies, or how technologies will change through their reception by societies. Such divinations often assume the form of a short excerpt from source materials, with an appropriate comment; Jennings's *Pandaemonium* is, thus, strikingly similar to *The Arcades Project*, and several contemporary critics of modernist thought (Bensmaïa; Suárez) point out to similarities between methods based on collection of images, and represented by Benjamin, Simmel, and numerous well known thinkers and artists:

But if his hieroglyphs look to the past, they also find their place in a wider modernist idiom. As they tried to communicate abstractions through the sensuous surfaces of everyday things and, conversely, to spiritualize the quotidian, and as they sought to highlight the mythic underpinnings of the commonplace, they were structurally

analogous to the 'mythic method' of William Butler Yeats, James Joyce, or T. S. Eliot; to Walter Benjamin's dialectical images; to Ezra Pound's 'intellectual and emotional complexes'; to Sergei Eisenstein's montages; and to Georg Simmel's *Momentbilder*. (Suárez 37)

A similar image was presented by Emerson, in a comment from his journals, which is suggestive of the social practices of the Internet cafes: "It is much wanted by the country scholars, a *café* or reading-room in the city, where, for a moderate subscription, they can find a place to sit in and find their friends, when in town, and to write a letter in, or read a paper. Better still, if you can add certain ways of meeting when important questions can be debated, communications, road, etc., etc." (Perry 244). Obviously, Emerson is dreaming, like subsequent generations did, but in the second half of the twentieth century the dream took a new, material form, and became technology and a set of consumer products and practices. The structure of this dream did not change when it materialized. How the Internet works, is best seen in Emerson's *Nature*.

1. Words are signs of the ASCII code.
2. ASCII characters are signs of machine-readable names.
3. Machine-readable names are signs of connections.

This syllogism is based on Emerson's syllogism in *Nature*, where instead of the ASCII code there were natural facts, and connections were spiritual facts. The similarity is functional: electric connections in hardware are natural facts, but connections between thoughts expressed in machine-readable code, e.g. when they are hyperlinked, are spiritual facts, materializations of thought or of the soul. Name servers are an open secret: yahoo, aol, even google are only signs of 856.594.834 or 23.456.323.654 or 65.567.545.324. The coupling of a name and its machine-readable number must be stored in a name server, which is effectively the first gateway to the wide, wide world. The coupling, however, is a wide equivalent of a narrow one, which is effected by every keyboard: characters (letters and numbers) are signs of the ASCII code, that is the binary numbers which are recognized (after a fashion) by screens. These are technical, material procedures, which would only be useful as unspiritual commodity without the third one. Names are signs of connections: connection is a spiritual fact. This is the crux of the comparison, because connection is a systematic concept, which cannot be reduced to the nuts and bolts of circuitry. Connection is the synergic, holistic potentiality of a communications system, irreducible to its parts; it is an organic form. Consciousness and brain can be described in precisely the same terms; this is the point (Hofstadter 385).

This was easier to explain in the days of telephone exchanges made of mechanical relays. Their ability to put people through was not in their parts, but in their SHAPE, or configuration. A desired connection consists not of wires and contacts, but of their relative positions. Connection is pure form, not matter. In other words, a telephone

exchange is another example of the dilemma between nominalism and reism. Is the connection only a name of a particular shape of a telephone exchange? The answer is Yes, and its name is the number.

When Emerson becomes a transparent eyeball, he stops seeing the relays, and begins to see the connection. However, nature was not made for Emerson to cross that bare common, its uses are more elaborate. An ordinary telephone user writes down numbers, and puts them next to names; in this way the dream of linguistic use of nature took its material form. Matter, as could be expected, made the dream stuff less transparent; it is difficult to see connections in a telephone book, and even more so in a name server, which has no mobile parts, and assumes no shapes visible with the naked eye. It is not enough to be a transparent eyeball.

However, there were telephone engineers with enough insight to cross the bare common. Howard Eiken, in his pioneering work on the mechanical ASCC computer, saw spiritual facts in relays of the telephone exchange: by connecting, an exchange (of sorts, of course) could remember and repeat spiritual facts (only data and calculations, which is an anticlimax, but still). When Eiken proposed the ASCC in 1937, he saw the spiritual quality of connections, an observation which almost turned flesh only once before, when Charles Babbage tried to build the analytical machine, a steam-propelled computer of the 1840s. Emerson's dream, quite unaware of it itself, tried and failed to materialize almost at the moment of its inception.

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In literary criticism, there is a wealth of applications of the comparison between Emersonian signs and computer networking. An interesting point of departure is offered by a critical comparison between Emerson and Balzac. It comes as a surprise, though it should not, that E. R. Curtius managed to understand Transcendentalism only through his understanding of Balzac, his "deep absorption in the spiritual world" (Curtius 213) of the French novelist:

Whatever this Theory of the Unity of the All makes itself known, it always avails itself of the same language. It has its own vocabulary of concepts and signs, which is self-consistent and always recurs. Since it conceives of the All as One, of appearances as forms of a unified power, it is a kind of Monism, Phenomenalism, Dynamism. But as the unity is divided into energy and appearance, inner and outer, cause and effect, this monism simultaneously becomes a dualism. In its dynamic aspect, the All-Unity-Theory is a system of energy. In this way it arrives at the concepts of polarization, antagonism, and compensation. When it advances from the scission of the one to the mystery of the three, it can turn into number mysticism and number symbolism. But infinity resides in number. The one is the beginning of an infinite series. An infinite series of degrees, following upon one another according to the law of continuity—this

becomes another aspect of the totality that is a unity. The All is a single movement of infinite ascent.

This movement is life. The Theory of the Unity of the All is vitalism. It leaves the antithesis of materialism and spiritualism below and magically conveys matter to spirit. It brings all things together into one great harmony. (Curtius 213)

Given this, it is possible to omit certain remarks on differences between Emerson and Balzac (or between Rastignac and Thoreau) in their relation to American pastoralism. Suffice it to say that

Balzac sought the play of the infinite cosmic energies in love, in artistic creation, in the mind. Its revelation in nature he did not understand. He views nature magically and alchemistically as the arcanum of matter. He interprets it symbolically as the antagonist of human energies and aspirations. He always considers it as something other than itself, as an index of mind. He is not familiar with the contrary movement: the reimmersion of the mind in nature, the redemptive harmony with the stars, the clouds, and the winds. The tension of human existence occupied him too fully.... What Emerson said of the literary men of Boston applies literally to him: that he stimulated his jaded senses with wine and French coffee. (221)

Curtius hastens to add the well known anecdotal evidence that Balzac drank a lot of coffee to write his novels, which brothers Goncourt found distasteful, when they recalled the legend in their journals. It seems plausible, that the young men in Emerson's cafe would not drink too much coffee, and certainly not too much alcohol; they would use the Internet instead.

What, however, is common in Emerson and Balzac, is the stress put on "energies" rather than connections. Spiritual facts are effusions of an inspiring energy, Emerson's metaphorical description of the Oversoul. The metaphor of the transparent eyeball, which stressed visible configurations (of a telephone exchange), is replaced in "The Oversoul" with metaphors of power, infusion, inflation, all propelling forces, but no blueprint of their spiritual, abstract shape. The choice of metaphors is a decision between abstraction and particularization. Communion with God, an abstract connection, is soon followed (Emerson 256) by a match, not an abstract one, but the one that lights up a fire. This is of great importance for Emerson's dream, because thus, on the level of rhetoric, the dream tries to assume a material form. It finally does now, when technology has become its somnambulic artist.

In literature, the transition from dream to materialized dream is, paradoxically, the history of realism. Balzac turned (abstract) connections into novels, which were supposedly signs of (particular) things. The situation in electronic calculation changed in the 1930s, when spiritual connections assume their first material forms (or the 1940s, because ASCC was commissioned only in 1944, very soon before the Eniac was

recognized as the first modern computer). In literature, the situation changed when authors realized that abstract connections can become artificial. Writing, instead of reflecting or seeing through, could actually construct; not a mirror, not a lamp, but a circuitry manual. Modernism, with esemplastic *poiesis*, and postmodernism, turning inward to texts, were described in slightly different terms, but it is really not the intention of this essay to write about contemporary novels about the Internet. The point is, the materialization of what is perfunctorily called Emerson's dream, took several different roads; there were several ways of making circuits. Arguably, many of them led to maddened delusions, but before that they held a promise which could give birth to notable literary works of art.

Thus, some kinds of *engagé* literature, instead of reacting to spiritual facts, attempt to reify and change them; Joseph Stalin would praise some socialist-realist authors (such as Maxim Gorky) as engineers of human souls (Westerman). This engineering has its maddened American version in what Ernst Bloch called (tongue in cheek) "electron of the human subject, or technology of the will" (Bloch 674), which will be discussed in more detail below. Another approach, which is a bit more difficult to explain, is represented by three well known American authors who fall into a happy solipsism after a brush with artificial spiritual facts.

The reifying example has an intriguing example in modern poetry, and it is Amiri Baraka. His experimental combination of poetry, music, and group management, subtitled "The Poet Orchestra," is recorded at www.archive.org. It is quite unfit for printing; the connections that Baraka tries to make are those between people, whose voices and movements are signs of artificial spiritual facts (his design). This is rather like Balzac, only Baraka does not see the design, and makes it, instead. With tremendous enthusiasm he tries to arrange creative outputs of a small group of people into a pattern based on a jazz song and a vision of dance (which is not visible, because the experiment was only recorded on a sound tape). Baraka's voice, singing the base-line of the exercise, is played in a loop from a tape recorder. The group is supposed to respond to the recording and act as "instruments," adding more lines to the recording, with the poet conducting people as if they were instruments. It is difficult to say if this is poetry, but it is definitely a poet's attempt to turn abstract connections into the material pattern made of people. He constructs a utopia, he introduces his connections into the small crowd, which is his little spiritual-material telephone exchange. Obviously, it does not work, people are confused and not really enthusiastic. Is this failure a reason to be happy or not?

The failure can be bypassed by a direct imposition of will upon matter. According to some species of American popular literature, a sufficiently strong will can turn nature into its extension; such literature knows and builds only one connection, the extension line. Ernst Bloch mentions several best-selling American examples in *The Principle of Hope*, notably Prentice Mulford's *Your Forces and How To Use Them* (1887), a work interestingly simultaneous with Bellamy's *Looking Backward*. "It is a single

capitalist Lord's Prayer and that of a pantheistic engineer as well: if his machine goes more slowly, man casts the will of his prayer like a transmission belt around the original dynamo of God. Or as it can only really be expressed in American Greek: "The man feels synchronized with the rhythm of Life" (Bloch 681). In the 1960s an even more American Greek term (biorhythm) added to this handbook of circuitry that was supposed to improve and replace the original spiritual dynamo with an artificial one. This is what Henry Adams saw in the 25th chapter of his *Education*, where the dynamo was "a symbol of infinity," and "a moral force" rather than, as it was for his companion Langley, "an ingenious channel" of energy transmission, a mere sign of "the heat latent in a few tons of poor coal hidden in a dirty engine-house carefully kept out of sight" (Adams 380). The ultimate source of this heat, however, cannot be hidden, because it is the sun itself which is petrified in the heat of coal; the big yellow circle of energy has made another connection: in the spheres of Adams's eyes, in light-bulbs, and in the circle of the dynamo. In Emersonian terms, the difference between Langley's and Adams's dynamo *is* none at all. For an Emersonian dreamer, the difference *should and will* be none at all.

The third approach to dream materialization is more difficult; it consists in a clever rationalization of the failure of the first one. In American literature, it is exemplified by three closely related authors: Mark Twain, James Branch Cabell, and Robert Heinlein in his last phase. The three writers share a post-modern disillusionment which Edmund Wilson described as a Southern trait, in his discussion of Cabell: for a (then) Northerner is it difficult to understand how progress, liberal economy, making the world safe for democracy, can be mere words for a Southerner (Wilson 235). In other words, culture (especially the material one in the form of technology and organization) will not transform the world (its people) into a living, materialized idea. This skeptical view can be ascribed to the three authors, who (with Heinlein by a stretch) can be regarded as Southerners. However, they did continue the Emersonian tradition in a different way, as Bill Paterson asserts in his essay on Cabell and Heinlein: "Cabell construes in literary terms the Transcendentalist conception of the one true reality which is all humankind. Ralph Waldo Emerson wrote of it as the 'Over-Soul,' standing outside time, so that each 'individual' is but a tendril of the Over-Soul intruded into time, but all are parts of the same fundamental reality" (Paterson). The Southern telephone exchange stands outside time, or rather incorporates all time in its connections. Thus, there is no reason to worry or rejoice about history. However, as Paterson observes,

Heinlein's versions of this proposition are 'flavored' with the solipsism of Twain's 'The Mysterious Stranger,' though it becomes clear from context that the self that is alone in Heinlein is the Neo-Platonic Over-Soul rather than the Cartesian cogito, from which Twain's reductionist vision is derived. Cabell's cosmogony, however he believes it to

be a statement of things as they are, is a matter of a particular generation, a particular place and time, and a particular compromise between Neo-Platonic idealism and the materialism that was then gathering strength.

Summing up, in its Southern version, the connectivist Emersonian dream is, as it were, radically internalized, instead of being *projected* onto phenomena. The Southern Oversoul comes from within, it is rationalistic, and not “empirical” (i.e. not seen by transparent eyeballs). Consequently, Twain’s devil, or *No. 44, or The Mysterious Stranger* is able to create worlds by effort of will: first people (the duplicates), then all sorts of curiosities and luxuries from different times (since time does not exist for him), and finally history itself, are all *made* by the printer’s devil, the individual spirit, who is the only source of reality and its connections. Cabell and Heinlein (under his influence) indulge in similar scenes; they build telephone exchanges.

Thus, Cabell’s *Figures of Earth* is an exercise in self-creation, but only at first, because it quickly turns into a feat of world-creation:

‘Our elders, Niafer, have long had the management of this world’s affairs, and you can see for yourself what they have made of these affairs. What sort of a world is it, I ask you, in which time peculates the gold from hair and the crimson from all lips, and the north wind carries away the glow and glory and contentment of October, and a driveling old magician steals a lovely girl? Why, such maraudings are out of reason, and show plainly that our elders have no notion how to manage things.’

‘Eh, Manuel, and will you re-model the world?’

‘Who knows?’ says Manuel, in the high pride of his youth. ‘At all events, I do not mean to leave it unaltered.’ (Cabell 23)

Cabell’s individualism, a fantasy of possible lives, in *Figures of Earth* becomes a solipsistic, creative fantasy about possible worlds, e.g. in chapter 20, “The Month of Years,” Dom Manuel the protagonist lives in a world of misery, and, by creating clay image of his beloved Niafer, gradually another world:

The spirit of Niafer entered at the mouth of the image. Instantly the head sneezed, and said, ‘I am unhappy.’ But Manuel kept on playing. The spirit descended further, bringing life to the lungs and the belly, so that the image then cried, ‘I am hungry.’ But Manuel kept on playing. So the soul was drawn further and further, until Manuel saw that the white image had taken on the colors of flesh, and was moving its toes in time to his playing; and so knew that the entire body was informed with life. (234)

Such possibilities of individual creation, in Cabell’s novels, were only open to artists. In Robert Heinlein’s science fiction, however, natural science is considered to be a sort of art, and individual creative might assumes the form of engineering. For Heinlein, who

was fascinated with transformative possibilities of science and engineering (being a sort of engineer himself), Cabell's gentleman-like disdain for time (and its transformative force) was a dormant trait: the individual manipulates time (and human affairs) in one early story, "By His Bootstraps" (1941), and in a series of novels Heinlein wrote in his last years. In the story, the protagonist is drawn (by a stranger) into the "time gate" where he meets a man who sets him up to perform a mysterious mission: it turns out that he must draw himself into the gate, i.e. reenact, or create the opening scene. In other words, the protagonist must ensure his own existence, the ultimate act of creation. Numerous other acts, i.e. the origination of humankind and its entire culture, language, and history, are mere technical additions: Dictor, the protagonist, turns out to be his own (and all people's) progenitor, but the most important step was the opening scene, when he takes one of his offspring and turns it into himself (of course, it is a logical paradox, and he never unravels it). The creative enterprise is continued on a grander scale in the novels like *Time Enough for Love* (1972), *Job: A Comedy of Justice* (1984), *The Cat Who Walks Through Walls: A Comedy of Manners* (1985), or *To Sail Beyond the Sunset* (1987). In the same manner as in the story, or in Twain's and Cabell's work, a human being leaves the indifferent, material universe, and creates a new, meaningful, super-material one.

It is a wholesome thought that the Internet, in its very technological foundations and designs, is a materialization of Emersonian connective dream, because it gives the phenomenon of the Internet both a meaning and a makeshift explanation. The Internet is a house made of dreams; it is based on a technology which manages to turn abstract spiritual facts into abstract (though reified) configurations of circuitry. It is doubtful, of course, if the materialization of the Emersonian dream can replace the dream itself: spiritual facts of which nature is a sign. In the same way, Benjamin's arcades could not, for all their dreamlike quality, quite replace the dreams they materialized. However, the variety of forms described in *The Arcades Project* exceeds expectations of every reader, and the Internet, whose number of possible connections exceed that of any arcade or city, may exceed such explanations as well, if it is described as a materialized dream about a meaningful, spiritualized nature.

These anticipatory images are pertinent for today's cultural function of the Internet. It has already been observed, by numerous authors, that dissemination of knowledge from libraries and archives (including government registers used in everyday life), turned out to be a secondary function of the Internet, which is primarily used as a source of entertainment, news, and for shopping and social networking ("Global Internet User Survey"). As such, the Internet performs the functions previously fulfilled by the cinema, radio, and television: it is a dream factory and it creates opportunities for fulfillment of individual aspirations and desires. What differs the Internet from earlier media is that it is a space that users can "enter" or be "in," move about, search through, find content, or leave things (comments) behind. As such, it combines the functions of

media with those traditionally fulfilled by nature, understood as natural territory for human actions. Consequently, conceived as a channel for information and control, the Internet has assumed the function of a territory explored in search for satisfaction of human passions, and this development has been anticipated in Emerson's set of anticipatory images and its continuations in American literature. Just like Emerson's self-reliant idealists, Internet users project their needs into an abstract space which is malleable and manifold, and which can provide users with "natural space," where an individual can stimulate and satisfy passions, which are understood to be sources of inspiration, motivation, and meaning of life. Critics of contemporary culture argue over whether this development is beneficial, harmful, or dangerous (Clark 115; Doctorow), but it has been interestingly, and perhaps unexpectedly anticipated as a form of idealism, in that the Internet is structurally analogous with Emersonian nature. If we conceive of networks and computers as abstract (mathematical) constructs, then Emersonian nature, mechanical computers, and electronic computers, are all different concretizations (materializations) of the abstract constructs. The present discussion does not propose to predict the future of the Internet on the basis of this similarity, but pertinent clues are presented in Leo Marx's (1988) and Lawrence Levine's (1990) essays on American pastoralism, where the authors describe the gradual trivialization of American ideas of nature in the second half of the nineteenth century. Both Marx and Levine point out to the ritualization of the pastoral contact with nature, which became gradually more and more codified and artificial in ways that reflected contemporary class divisions and prejudices in big American cities. This seems to be a plausible model for the cultural future of the Web.

The model can be elaborated as a set of historical parallels. Below, the discussion will extrapolate the evidence left in cultural documents, and propose four scenarios for future usage practices of the Internet, with possible trends in developments of required technology. The discussion will refer to literary criticism and history of culture, as it described further development of cultural conception of nature in the United States in the second half of the nineteenth century, when the idealistic concept of nature became part of popular culture.

1. Internet is a malleable space of projection

As Levine observed, when Romantic concepts of nature became part of American popular culture in the 1870s, they were simplified, and they lost their links with religious orthodoxy. This severance resulted in greater flexibility of the concept of nature, because nature lovers did not have to observe the traditional view of nature, as prescribed by Christian beliefs; this discipline was already weak in Emerson's time, but at that time it was a stabilizing influence. In the second half of the nineteenth century, on the oth-

er hand, nature could mean anything to anybody, as the examples provided by Bloch suggest. Nature, thus, had become a malleable space of projection, especially for those Americans who lived in urbanized areas and whose fantasies were not verified by first hand experience of rural life. In response to the development of nature as malleable space of projection, free-time industry began to reshape American nature, and adjust it to the popular image of nature, which consisted of fantasies and requirements of customers. This development is parallel to the increasing flexibility of the Internet as alternative reality: increasingly, content can be freely adjusted to preferences of users, who are less and less bound by requirements such as programming expertise, computer terminology, literacy, Internet etiquettes, or traditional modes of Internet use, which consist mostly of writing, reading, and watching. Just like "nature" was commodified and developed as a set of playgrounds, late in the nineteenth century, the Internet is likely to adapt to the common customers' need for recreation through physical exercise, adventure and excitement, travel and discovery. The Internet can provide a more affordable and available satisfaction of such needs. Perhaps most likely, this will consist in increasing use of sandbox gaming and controllers based on movements of the entire body, such as guns, kinects, wiis, and imitations of musical instruments (Poh).

2. Malleability leads to social fragmentation and stratification of users

Beginning in the second part of the nineteenth century, increased malleability of nature has led to increased diversification of its users, and to social fragmentation and stratification of users (Esping-Andersen 14). Leo Marx collected a lot of cultural evidence of the process, demonstrating how tourists visiting natural areas formed social bubbles, and interacted only with small groups of similar tourists, or did not interact at all. Importantly, tourists do not interact with native inhabitants of the place which they conceive as natural, and cultural evidence suggests that this disinterest is mutual. Presumably, every social bubble of this kind has a different concept of nature, and uses this concept to satisfy a different array of needs. Nature, thus, does not function as a space of interpersonal interaction, but as a malleable space of projection for a single individual or a small group. The same development, which is perhaps a general feature of consumer society, is observable among users of the Internet. However, the cultural evidence (discussed below) points out to mutual incomprehension, antipathy and lack of interest between various consumer groups, or users of the Internet, and in particular, between "external" users and "resident" experts, both in nature and in the Internet. In this extrapolation, the Internet is compared to nature, users are compared to tourists, experts to native inhabitants, and mass tourism, rather than traveling or discovery, is compared to Internet use. It seems that the identifiable future trend in development of social response to the Internet will be increased social stratification, and development

of exclusive and isolated consumer groups. Spontaneous and exclusive social grouping, rather than language or type of content, will probably be the main contributive factor in the fragmentation and isolation of Internet user groups.

3. Codification, uniformization and mimetism are spontaneous mechanisms

Lawrence Levine, in one of his studies on the evolution of popular attitudes to nature, focused on codes of conduct in public parks, and demonstrated that such codes were becoming increasingly elaborate in the 1890s, and extended over more aspects of behavior than before, regulating the choice of clothes worn by visitors, games and sports, prescribed ways of moving about, and bans on eating certain foodstuffs (Levine 235). The tendency was apparently ridiculed by contemporary commentators, but the cultural evidence reflects the trend to codify and standardize human contact with nature. The phenomena of social fragmentation and stratification, discussed in the previous section, seem to be spontaneous initially, and subsequently become codified, and the codification is imitated by an increasing number of regulators, which leads to standardization and unification of the social practices of contact with nature in various regions and countries.

The parallel with the Internet use consists in the malleability of the concept of signifying nature and the concept of the Internet: both are prone to codification. As mentioned in the previous section, the codes of conduct in the Internet are enforced by peer pressure within user groups, where noncompliance is punished by exclusion. What Levine's study suggests is that the codes of conduct are likely to be articulated in an increasingly explicit and detailed manner, to become increasingly complicated, and to extend over more and more areas of a user's life, to the point of becoming a codified lifestyle of a given user group. As in the case of public conduct regulations in famous parks, the codes of the most prominent and popular groups are likely to become standards, imitated by smaller and newer groups. Thus, paradoxically, although social fragmentation results in developments of an increasing number of small user groups, the codes of conduct within the groups are likely to become increasingly similar.

The tendency is already observable in the use of social network portals, Internet shops, and forums. The tendency is fostered by the fact that relatively few standardized engines and templates are used by website developers (Heck), but the nature of this development is cultural and social, not technical, in that it works on the level of etiquette, privacy policy, and rules of comment moderation. Thus, the major websites, such as Facebook and Youtube, are comparable to Central Park in New York, whose code of conduct had set the standard of such codes in parks established in other American cities and towns. Conversely, facebook, ebay, amazon, and youtube are providing ready-made interface patterns, modes of operation, and elaborate codes of conduct for

their imitations and equivalents in various cultural regions and linguistic zones. The tendency is, of course, related to fashion, snobbery, and similar mechanisms of social mimetism (Billot 240; Ruvio and Yossi 65).

4. Pastoral narrative is a model for development of user interface and user practice

Another, most general, type of similarity consists in the choice of general narrative framework in the cultural construction of natural landscape in the nineteenth century, and the metaphorical landscape of social networking in the Internet. Cultural theory generally assumes that thinking and understanding is determined by narrative patterns which are commonly taught and repeated in a given culture (e.g. Snell 20). In the case of American concept of nature in the nineteenth century, the dominating narrative pattern was that of classic pastoral, as suggested by seminal studies by William Empson (1930). and RWB Lewis (1955). The narrative has influenced American popular culture, but on more general level it has also influenced marketing and customer behavior (Larsen; Lewis), policies and political discourse (Archer), and cognition style and education (Richard). Various general patterns of pastoral narrative have been suggested (Slotkin), but most cultural theorists mention a small range of typical features and elements: a hero whose social and familial bonds are weak and uncomplicated, a hero whose identity is not determined by national or familial loyalties, conflict between individual and society, relatively easy solution of the conflict (not a tragic solution, but rather a comical or melodramatic one), and usually the solution achieved through a cycle of typical episodes: escape from society, inspiring contact with nature or a character who represents nature, return to society accompanied by reconciliation, accommodation, and disremembering. Pastoral narrative, typically, avoids key elements of tragic plots, such as irreversible damage, tragic recognition, reversal of fortunes, and belief in destiny.

In terms of Internet use, pastoral narrative emphasizes the use of those qualities of computer technology which allow for inconsequence of actions, learning through infinitely repeated attempts, removal of data and easy recall of data (even after removal), and generally the possibility of undoing and forgetting any action when it proves undesirable. Conversely, when the Internet proves capable of non-pastoral features, as with irrevocable and indelible recording of user behaviors, the reaction of users is negative (Oksanen and Välimäki 12). Thus, users who imagine the Internet in terms of pastoral narrative, will focus on individual experience and possibly greatest freedom to shape and reshape one's life and identity, with possibly weakest resistance from society. In practical terms, for example, this means that a punishment by exclusion, which enforced coherence of user groups, does not lead to permanent exclusion, and can always be undone when the punished user assumes a new identity. By itself, the

comparison of Internet use to pastoral narrative seems not to have great anticipatory potential. However, in the second half of the twentieth century, American culture produced a lot of evidence of crisis of the pastoral narrative, which consists in parodies, travesties, and tragic variants of the narrative (Toliver). This might anticipate future anxieties and disappointments of those Internet users who expected the Web to be, like pastoral nature, a friendly and unchallenging social landscape, which would allow for inconsequential actions and easy reconciliation between individual and society. The best contemporary example is the anxiety caused by legal actions, or possibility of legal actions, against people who broke the law in the Internet (as with violation of intellectual property); it seems that many users conceive the Internet as a space where violation of law is not, or should not be, irrevocably recorded, persecuted, and punished (Breton 48). Less obvious, but more poignant, examples are the cases of lives tragically ended or ruined by mobbing and character assassination, especially in smaller Internet user groups of children and young adults (McLean 21; Goel 15; Akdeniz 19). An escalating and proliferating crisis of the pastoral narrative, and its eventual demise, seems to be a plausible anticipation of future development of social practices in the Internet.

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