Teaching Media Ecology Russian Style

Abstract: Media Ecology is an interdisciplinary humanistic endeavor relying on inspiration and intuition, encouraging discovery learning and training of perception rather than memorization of facts and slovenly adherence to methodologies. However, teaching it often calls for a set of frameworks and methodologies which would provide a structure for students. This paper briefly reviews four familiar frameworks developed by the founders of Western media ecology (Nystrom's synthesis of communication models, McLuhan's tetrad, Postman's set of seven questions, Ellul's milieus as expanded by Garrison) and introduces a series of frameworks developed by the founder of the Russian school of the ecology of culture, Yuri Rozhdestvensky. These frameworks address levels of morality, semiosis of societies, communication strata, and strata of culture. The paper shows how these models can be applied in the classroom to encourage probing, discovery and pattern recognition. Finally the paper proposes that inspiration and intuition be joined to a set of discipline specific methodologies.

Key Words: education, ecology of culture, Rozhdestvensky, levels of morality, pedagogy, discovery learning, media ecology methods

Introduction

Terence Moran (2012) in his plenary address to the 2012 MEA conference argued that a methodology kills creative thinking and leads to an assembly line of Ph.D.'s. He reminded the audience that Media Ecology was conceived as interdisciplinary, liberated from academic disciplines, that it draws on such fields as linguistics, semantics, communication studies, and that thinkers such as Neil Postman used statements as probes, to elicit reactions, and encouraged his students to tell stories rather than follow memorized methodologies. Moran quoted: "Rules and regulations are made for the guidance of the wise and the obedience of fools," and followed Yeats to say: "Rhetoric is the argument we have with others, poetry is the argument we have with ourselves. Media Ecologists should be poets."

An assembly line of PhDs is indeed a chilling prospect and all too often a chilling reality; the idea of inspiration is much more romantic. Exploration often ends where a standard methodology begins. A stable set of tools, once adopted, often degenerated into a stagnant orthodoxy, because a stable set of tools resembles thinking to the unsuspecting. The history of religion and ideology demonstrates how practices begun on challenge, flexibility and exploration ended up trapped in their own dogmatic and oppressive methodology.

However, a discipline requires discipline; we work in classrooms helping students develop a mental map of their communication environment, showing the relationship between their current states to the previous states of humankind, so that they are able to see their own communicative practices as provisional, ways of living that lead to specific, not always desirable results. Some methodology is not necessarily antithetical to this attempt; indeed a variety of competing methodologies can help students see the patterns that threaten to trap them.

The following paper is an attempt to walk the fine line between the Scylla of inflexible methodologies and the Charybdis of random probes.

Familiar frameworks of the Western media ecology

Christine Nystrom (1973) in her doctoral dissertation *Towards a Science of Media Ecology" The Formulation of Integrated Conceptual Paradigms for the Study of Human Communication Systems* analyzed several models which can be applied by media ecologists in a systematic investigation. She proposed that "depending on the purpose of the observer and the problem at hand" we pick different communication models (p.303):

When the problem is	And the context is	And the purpose is	model
Technical (involving mechanical or physical distortions in the coding, transmitting, receiving,	Machine-machine Machine-man Man-machine	Descriptive Analytic therapeutic	Shannon-Weaver-Wiener

decoding processes	subhuman		
Syntactic (involving the elements in codes and the ways in which they are organized)	Language Gesture Music etc	Descriptive analytic	Structural linguistics
Semantic (involving the relationship of codes to their referents in reality, and the relationship of meaning-making to codes)	Intrapersonal Interpersonal Mass communications cultural	Descriptive Analytic Therapeutic Descriptive Analytic Descriptive analytic	Ames; Morris; General Semantics Westley- MacLean Whorf-Sapir
Pragmatic (involving the relationship of messages to their effects on audiences)	interpersonal	Descriptive Analytic therapeutic	Morris Berlo
Affective (involving the relationship of communication behavior in general to feeling a value)	Intrapersonal interpersonal	Descriptive Analytic therapeutic	Ames Berne-Harris

Parenthetically, I would like to mention that although Whorf-Sapir hypothesis continues to be relied on in media ecology, it is actively disputed in cognitive linguistics, and the experiments on which it is based have been called into question; at least the strong form of Sapir-Whorf is no longer considered true.

Conspicuously absent from Nystrom's clear and helpful synthesis are models and methodologies from the media ecology. It looks like media ecology has none. Nystrom's dissertation was written when media ecology was just coming to prominence, and the question seems to have been whether media ecology would be framed as a separate systematic field or as an interdisciplinary investigation, presumably not having its own tools. One of the ways to shape the discipline at the time, described by Strate (2011) in *On the Binding Biases of Time*, was the application of systems theory. Strate concluded that "the focus shifted away from the scientific and towards more humanistic, philosophical and critical approaches" (p.56). However this shift does not preclude a systematic application of a set of models. We believe that there are media ecological models which we can profitably use to train students.

We are proposing that there are a series of techniques specific to media ecology – drawn not from linguistics, not from general semantics, not from psychology, not from history, but from systemization of the subject itself. These can be used in the classroom to show how the subject is organized and how its components interrelate. In this paper we would like to briefly mention three models that are very familiar to American media ecologists and then introduce in greater detail five useful tools developed by Yuri Rozhdestvensky, the founder of the Russian school of media ecology and ecology of culture.

Neil Postman says in his talk *Five Things You Need to Know About Technology* (1998): "I would forbid anyone from talking about the new information technologies unless the person can demonstrate that he or she knows something about the social and psychic effects of the alphabet, the mechanical clock, the printing press, and telegraphy. In other words, knows something about the costs of great technologies". To evaluate the costs of any new technology, Postman tells us to ask seven questions:

1. What is the problem to which this technology is a solution?
2. Whose problem is it?

3. What new problems will be created if this technology is adopted?
4. Who will be the losers? (i.e. who will be harmed by this technology?)
5. What institutions will gain power?
6. What changes in language will this technology bring?
7. What alternative uses of the technology are possible?

These questions were voiced in Postman's 1996 talk at the College of DuPage Lecture Series, and printed in his *Building a Bridge to the 18th Century* (2000). They can open students' minds to what culture all too often occludes.

Marshal McLuhan as both a teacher and writer advocated cool pedagogy "so as to invite learner participation, interaction and involvement" where students were allowed "to discover portions of the topic for themselves" (Kuskis, 2011:319). He argued that in the electronic age pattern recognition will be more important than absorption of data and designed the tetrad, which teaches "perception through figure/ground analysis" (Kuskis, 2011:313). The tetrad conveniently presents an algorithm: each time a new technology arrives, four things happen: something recedes into the ground, something steps to the forefront, something old is retrieved and things are pushed towards some new effects. Thus, for each new medium/technology the investigator should ask four questions:

1. What does the medium enhance?
2. What does the medium make obsolete?
3. What does the medium retrieve that had been obsolesced earlier?
4. What does the medium flip into when pushed to extremes?

Like Postman's seven questions, the application of the tetrad helps train perception and demonstrates patterns in the ebb and flow of media. Logan (2010) very thoroughly and systematically applied the tetrad to the new communication devices which appeared after

McLuhan's time and demonstrated that each new communication device does lend itself to the "tetrad" analysis. There is only one shortcoming in the tetrad analysis: it provides the questions which are very general ("something" will be pushed into background and "something" will be retrieved). Students, especially at the lower levels, cannot always come up with meaningful answers.

Yet another useful tool for presenting media ecology to students can be taken from Kevin Garrison (2013), who expanded Jacques Ellul's theory of three milieus and postulated a fourth one:

	Milieu 1	Milieu 2	Milieu 3	Milieu 4
External environment (exogenous – adapting the environment to the person)	Nature	Society	Technology	Virtuality
Internal environment – adapting the person to the environment	Ritual and storytelling	Politics and religion	Psychological	Transhumanism
Discourse	Orality	Writing	Print literacy	Electronic
Efficiency dichotomy	Life/death	Good/evil	Rationality/ irrationality	Posthuman/ human
Approximate dates	~11,000-3000 BCE	~3000BCE -1500 AD	~1500 AD – 2000 AD	~ 2000 AD – present
Transitory moment	Language	Agriculture	Enlightenment	Postmodernism

(Garrison, 2013:67)

This chart proposes the bird's eye view of human history and concisely presents the changes in human media environments. If used to prompt discovery and discussion, it becomes a "cool" instead of a "hot" pedagogical tool.

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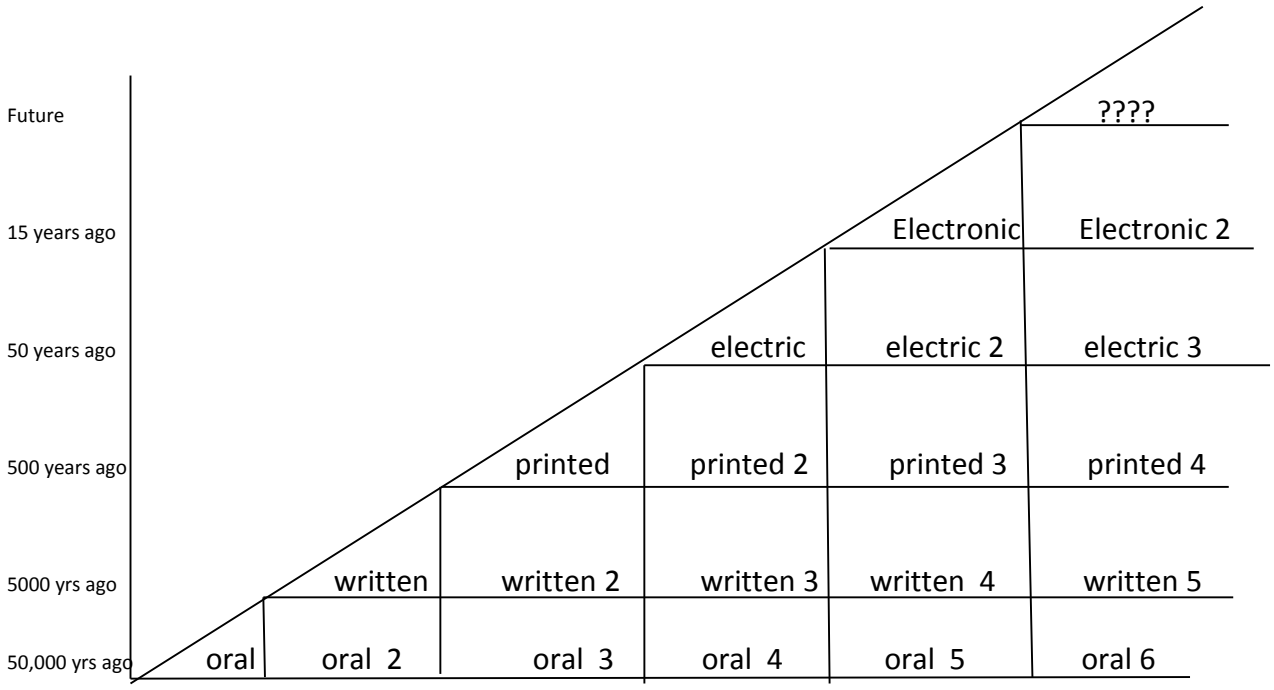
Yuri Rozhdestvensky (1926-1999) was not a "cool pedagogue" in the sense of the term devised by Alex Kuskis. Rozhdestvensky lectured and expected his students to retain the rules he discovered and proclaimed; even his home seminars were more lecture than discussion. However, like other media ecology frameworks and tools discussed above, Rozhdestvensky's charts stimulate discovery, promote pattern recognition and train perception.

In *General Language Studies* (1996a) Rozhdestvensky develops an algorithm he first proposed in *Language Theory* (1967): each time a new medium is harnessed for communication, the following things change:

- Some old jobs die, some new jobs are created
- New genres of communication appear; old genres transform;
- Schools develop new curricula
- Linguistic theory provides new rules
- Copyright laws change

The application of this algorithm is described in detail in Polski and Gorman (2011). This list of five changes is useful for a systematic study; it can be applied not only by the more inspired, but also by common practitioners, including the average student. One of its advantages is that it prepares citizens for the inevitability of unsettling changes; for instance, once communication becomes digitalized the nature of copyright must change, and there will be legal conflict concerning the nature of those changes.

Rozhdestvensky argues that the oral language of a literate society is not the same as the oral language of a preliterate one; writing and oral speech change under the influence of print; printed, written and oral texts become different under the influence of radio and TV. To illustrate this we can create the following graph.



Polski and Gorman, 2011: 266

For example, in a seminar students discussed Lanier's *You Are not a Gadget*; there Lanier speculates that language may be getting simpler in order to accommodate computer technologies. The class then discussed Blechman's *Executive Severance*, a murder mystery originally written entirely on Twitter, the product of digital technology and later printed as a book. The Twitter format does not so much simplify the book's language as it pushes it towards what seems eccentricity: first, the author must condense the text; secondly, the relentless punning and whimsicality in every post focuses the reader's attention in the electronic space but disperses it in print. This example calls into question Lanier's point about the alleged simplification of language. A student pointed out that *Executive Severance* illustrates instead Rozhdestvensky's assertion that new technologies seep down to modify old genres and modify language making it more complex. Another student commented that in the hands of a master a new medium leads to new possibilities, while in the hands of mediocrity it litters the electro-magnetic environment. The printed version of *Executive Severance* belongs in the box "printed 3" – a new type of printed book, which is formatted differently (conventionally, it has chapters; unconventionally, within each chapter it has not paragraphs but tweets) and places a different set of demands on the

reader (in this case, a sustained decoding effort because of the density of puns, which in a traditional printed text are spaced farther between). Rozhdestvensky's graph was used as a framework to help the students see that these changes are legitimate and contribute to the overall development of culture; it provided a structure that allowed the teacher to relate past changes that TV and radio (electric media) have triggered in the printed genres and changes that printing had triggered in the writing habits of the literate members of society. The same graph provides a structure within which students can discuss the influence of new communication technologies on oral communication and on writing, as well as imagine potential future changes caused by potential future technologies.

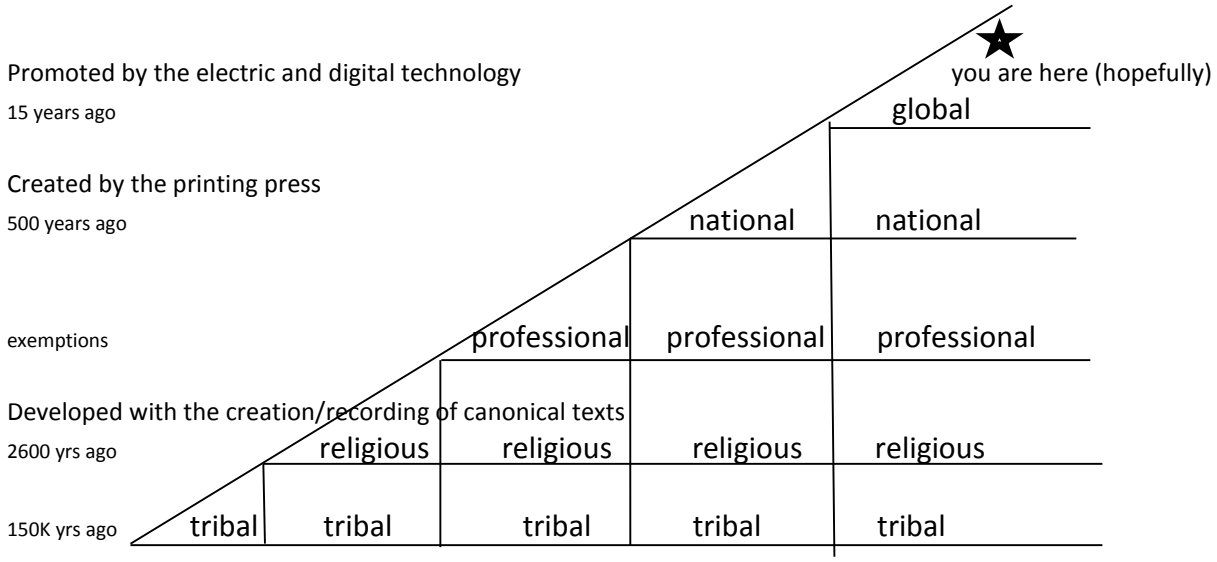
Most importantly, the graph helps the students to see themselves as part of a historical process, not as isolated pioneers of technology. Rozhdestvensky's pedagogical pathos was that to be competent in today's world a person must be fluent in all forms of communication, comfortable at every stratum – otherwise one is likely to misunderstand what seems most familiar.

Another useful way to teach media ecology is to graph the development of culture. One axiom of this position is that changes in communication media permeate all areas of culture, including human morality. Rozhdestvensky classified morality into the following types:

- tribal (which applies morality to kin at the expense of non-kin) – exists in oral, pre-literate societies
- religious (which universalizes morality under the validation of a god or gods and does not distinguish between kin and non-kin)– develops together with the recording of canonical texts
- professional (where vocational values sometimes compete with universal codes) develops as cultures become variegated and complex

- national (which creates a morality based on humanly created laws rather than divine laws and is appropriate for an artificially created territory) – develops after creation of nations, in the case of Europe after the invention (and intervention) of the printing press
- ecological, or global (a level that presumes to overcome tribal, religious or professional allegiances for the sake of global well-being) – promoted by electric and digital communication technologies which spill out of national boundaries.

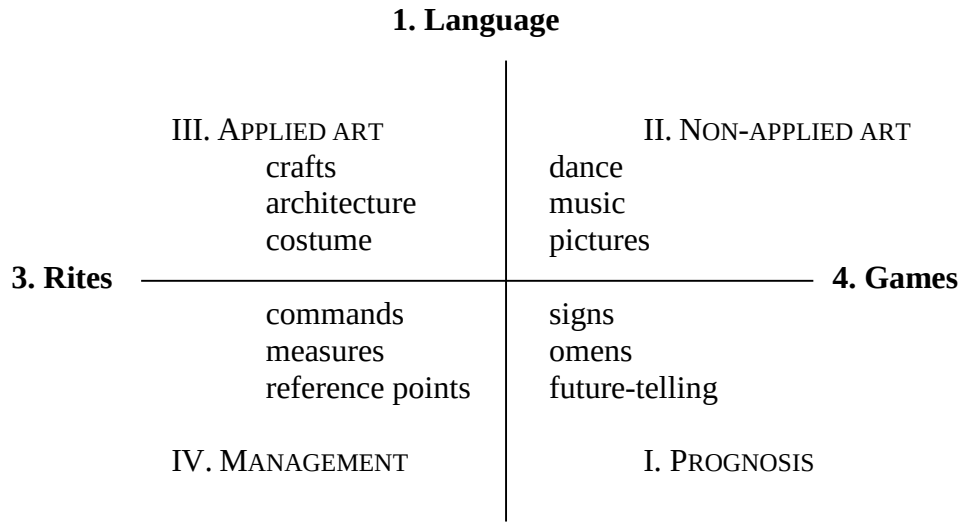
Rozhdestvensky argues that the levels of morality do not completely supplant one another but rather co-exist sometimes uneasily**,** in mutual influence within the person:



This graph is usually very successful in the classroom because students are invited to look into their own heart**s** to evaluate how the levels of morality coexist there; it impresses students to see that tribal morality dominated in the human species for 150,000 years, and all other levels represent the attempts to curb our visceral reactions. Good questions to ask are "Would you fire your brother if he is not doing a good enough job?", "Do you think America should have retaliated against Afganistan after 9/11 attacks?", "Explain how George Zimmerman's attack on Travon Martin can be justified within the tribal level of morality", or "What happens if a person who is on a tribal level of morality gets access to the 21st century weapons?" A vivid example of

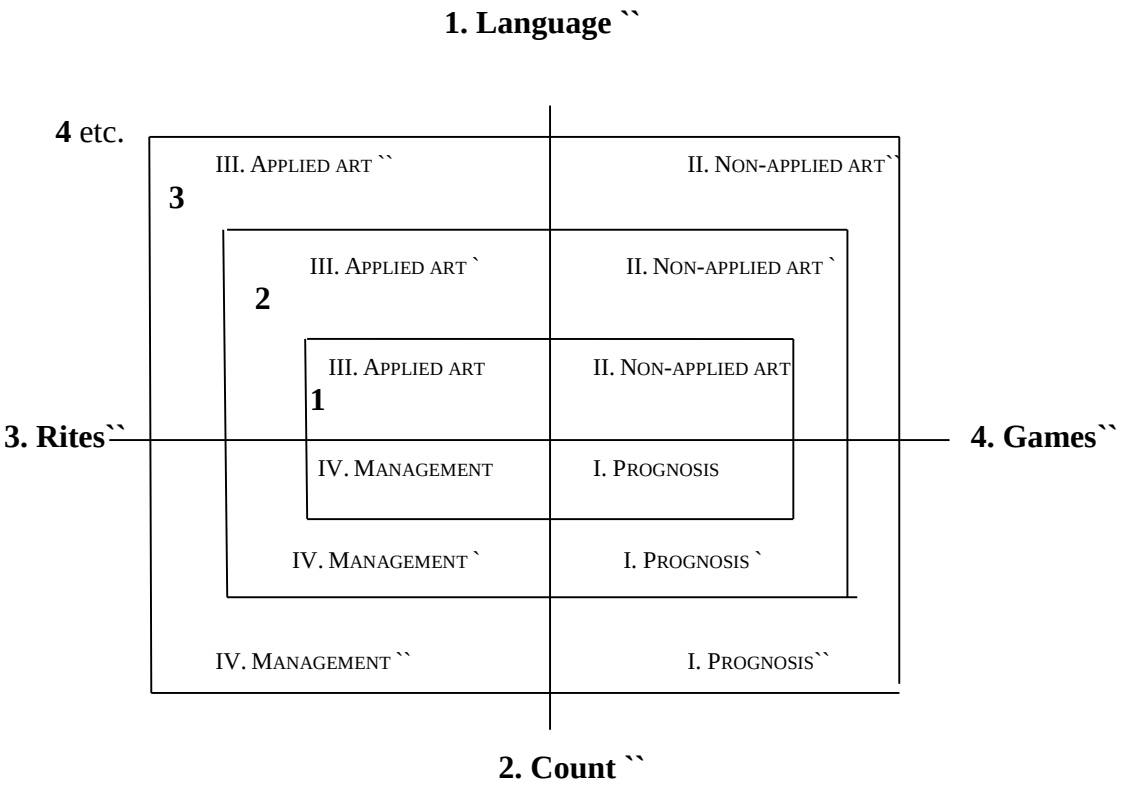
the interplay of the levels of morality can be drawn from Americans' reactions to the 9/11 attacks, e.g. Ted Coppell's Nightline program invited students from Muslim countries to have a dialogue about America's reputation in the world and to ask what caused the animosity, while the government voted for a military retaliation. And of course the graph provides a frame within which each shift can be discussed and connected.

Rozhdestvensky offers similar useful and specific tools to apply to other aspects of culture, not only communication. He demonstrates that each human society has its culture structured according to these 16 semiotic systems:



Rozhdestvensky 1996: 34

Fittingly for media ecology, Rozhdestvensky demonstrates that each new communication medium added to human societies proceeds to contribute to these semiotic systems and creates a new stratum – but does not replace the structure or add new semiotic systems. For example, weather forecast can be made by observing the color of sunset with a naked eye or by observing the movement of cyclones from a satellite with a computer; the future of the stock market can be forecasted through crystal-ball gazing or through complex computer modeling systems – but in either case those are still parts of prognostic systems.



Rozhdestvensky 1996a: 39

The graph above can be used to explore how harnessing each new medium modifies the entire semiosis of human societies, permeating all of its systems (i.e. technological change is ecological). For instance, a fruitful class discussion can start with questions like "How did the invention on the printing press change visual arts, signs, games, reference points, language?" "How did electricity change music, architecture, commands, signs, games, rites?"; "How did the digital technology change music, visual arts, commands, measures, language, etc.?" The level of development of a society may be evaluated with the help of this model by looking at which strata were/are proportionally developed. Some societies go through the stages gradually, others are forced to jump from an oral to a digital stage**,** which can create brutal cultural disruptions.

The fifth tool by Rozhdestvensky that I'd like to introduce is his Law of Non-Destruction of Culture. It postulates that new facts and artifacts do not cancel out other facts that are already included in culture. Facts and artifacts belonging to one time period form a stratum; new strata enhance and invigorate old ones. The Law consists of three parts:

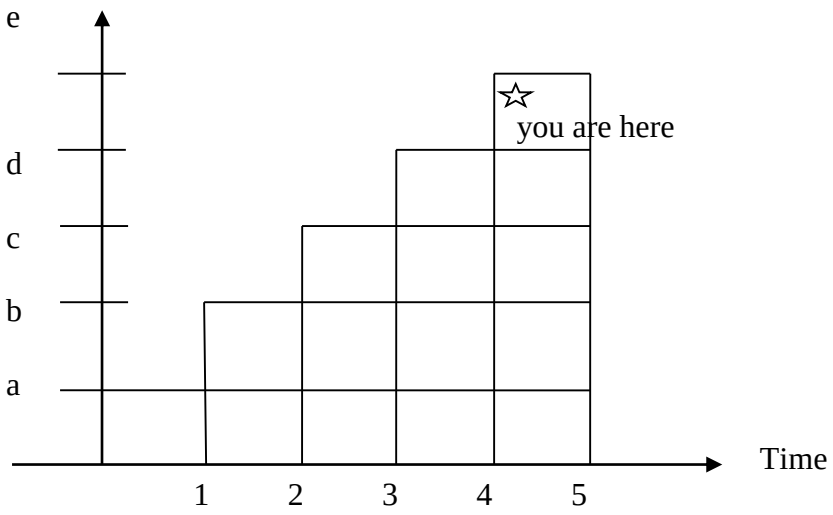
1) Any new fact of culture (a fact of current or past activity newly included in culture)

cannot cancel out other facts previously included in culture.

2) Facts of culture are grouped by time period. These groups, which include all forms and types of culture, comprise structural units. Structural units of each social and historical epoch are called strata (i.e. layers) of culture.

3) The emergence of a new stratum fosters the development of and restructuring of the preexisting strata. The restructuring of the old strata is called the evolution of culture. This evolution is spontaneous and is processed by cultural establishments (museums, archives, schools). McLuhan's tetrad implies the same: addition of a new technology obsoletes some things and often turns them into objects of art, but retrieves others, in a modified form. For example, preliterary societies use animals as a source of power (horses, oxen, donkeys, mules, etc.); ancient civilizations add mechanisms (windmills, water mills) and keep and improve, through selection and breeding, the breeds of animals used as source of power; modern civilization adds electricity and nuclear power and keeps animals as a source of power, enhancing that old stratum through attributing entertainment and medical value to it (e.g. hay rides and sleigh rides at $3 per adult at a historic farm, or use of horses and other animals as therapy). This way the old strata are preserved and enhanced.

The main laws of culture can be illustrated thus:



As all the other Rozhdestvensky's tools, this one can demonstrate to the students that any current level of culture does not exist in isolation, but interacts with all previous levels.

A common thread running through these charts is this: when new technologies change our environment, they do not cancel out the old strata of culture and the old types of communication, but modify them and frame them differently. A competent modern human is comfortable at all levels of communication (oral, written, printed and electronic), not only at the most recent one. With the onslaught of new communication technologies, the old ways of communication need to re-define and often re-carve their place in the overall ocean of genres. For example, a panel *Qualities of Acoustic Presence* at 2013 Media Ecology conference was devoted to the role of the spoken word and its place among other types of communication. The panelists described the primacy (at least chronological) of oral communication and contemplated its fate in the digital era, including such ironies as online public speaking courses, though not addressing the future of public speaking, e.g. how much of it is now mediated by digital technologies. The fact that the panel was well attended testifies to the topicality of the issue. It is important to ask how oral speech changes in the electronic era, or to compare its place now to its place 200 years ago or to 2000 years ago. And it is important to ask these questions dispassionately, not automatically privileging the oral over the written or the electronic. As much as is possible we should relinquish our tribal, religious, or professional prejudices, and as dispassionately as possible examine the complex way communication works.

Conclusion

Media ecology tools allows a glimpse into the sweep of human history and concisely present the changes in human media environments. At its best it provides a rational and balanced view of the large-scale processes throughout history, which allows a culture to see its new stage in relation to previous stages, and thus avoid the somnambulism about which McLuhan warns in

Understanding Media and the panic that something entirely unpredictable and new is happening. Media Ecology not only considers implications of new media, but also explains how old strata of culture become incorporated, invigorated, acquire new value (even if it's museum value). It is our role as teachers to see that future citizens are not trapped in the technologies of the present or the future, not simply used by technologies as functions in a corporate environment, but that they can use these technologies to unleash personal and social possibilities. Class room activities can be profitably used exploring these possibilities. Such activities require intuition and creativity, but they are aided by the methodologies discovered by those who thought deeply about the subject.

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