Telexa.net

Jacmel Enterprises LLC

Alan Longley, president
alanlongley@quantcorner.com
973-634-7578

The Technology of Written and Spoken Language

Writing is a technology but few view it as one, and this is dangerous, yielding dangers which taint technologies built upon writing, which is most of them. This blindness taints voice communications, as we will see..

Have you ever noticed how everybody thinks they are an expert on what good paintings look like? “Awesome!” or “You call that junk art?” Nobody thinks of paintings as just coverings for wall space, which is akin to thinking of paintings as technology, like wallpaint.

Condemnatory judgements in the world of language are dangerous. “That person is a stupid illieterate”; “He sounds like a hill billy and writes like one”.

Without clear understanding that writing is a technology - no more and no less - the highly literate often steamroller over the lives of the less fortunate, plus they recruit followers to do the same. The field of law is a good example:

"Telescoped into a century and a half, one may find changes in social, political, and property relations which stretch over more than 30 centuries of European civilization. The toughness of law which keeps it from changing as rapidly as social conditions change in our national life is, of course, much more serious where the rate of social change is 20 times as rapid. Felix Cohen, The Handbook of Indian Law,1941, p xiii

Law is built upon the written and the spoken. Cohen encapsulates in the term “toughness” abuse, ruined lives, war, etc. And look! He uses numbers! Whatever nastiness resulted from the emergences in law in Europe is happening 20 times faster here. Cohen senses that there is a mathematics inherent in the rampant toughness. I will generalize from law to the technology of all writing. But first I want to mention something written on telexa.net:

"The advantages [wealthy educated] parents give...children...start early on....children of professional families hear more spoken words - about 2,100 per hour - compared to 1,200 per hour in working-class families and 600 per hour in families on welfare....Children in professional families [hear] millions more words every year than in a family on welfare." (The Third Pillar, 2020, Raghuram Rajan p.220) .

Professional families impart “secondary orality” to their children, speaking conditioned by reading, see orange box on page 3. It is easy that those with vocalization conditioned upon writing are often “tough” on those not so equipped.

On page 4 there is a useful graph for a hypothetical person showing how she starts out unable to write. These early years are an important market for telexa.net. Towards the end of her life, she is less likely to engage in writing activities, also an important Telexa.net market.

This diagram set is written in a modelling language called IDEF0, which is described on page 2, though it moves towards representations in category theory, a modelling language accommodating much of mathematics. The law cries out for expression within category theory to avoid the dangers of writing. Very little has been done with this. Wesley Hohfeld’s reduction of law to 4 Jural Opposites and 4 Jural Correlatives is ripe for category theory, as of two years ago the only such treatment I found was here: http://josephtanega.blogspot.com/2011/10/n-financial-theology-some-precise.html

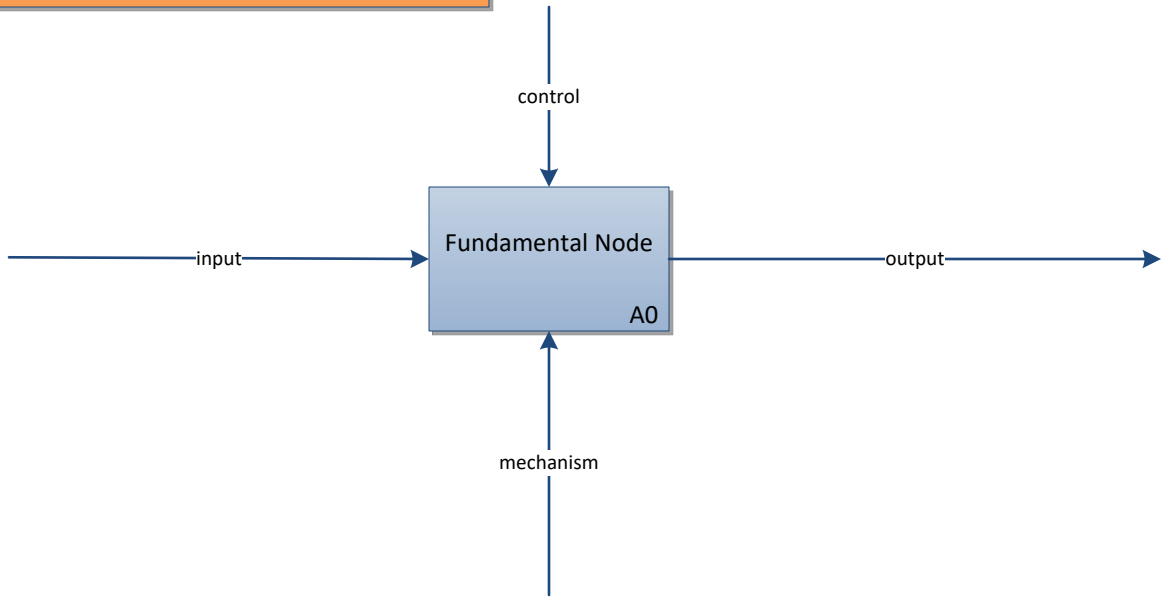
I just checked his website – he seems to have included new coverage of human protection systems, which I will mine for possible ramifications for telexa.net after the conference!

The risk implications of technology focused on an empirical and analytic appraisal of the technology of writing

By Alan Longley

This charting language used in this diagram set is called IDEF0. It uses the below node structure to identify elements of the system. The diagrams in the set disaggregate the system into components. The first diagram in the set, which appears on the next page, is the context diagram, which provides a generalized view.

Occasionally, other structures than this basic node are used to present information.



NODE:	TITLE:	Node Definition	NO.:

Writing was considered first magical, then sacred or holy in the form of scripture. Subsequently, the dynamics of writing have been so bound up with the principles of rationality that nobody has thought to study these dynamics analytically. Descartes's "I think and therefore I am" is a thought that could only be the fruit of reason bred by writing, but the mathematics of all this, at either the individual or group level, has been little explored. Nonlinear dynamics of the primary technology of writing are largely unexplored, despite advancements in non-linear mathematics, which includes artificial intelligence and artificial life.

Law is a subset of writing. A mathematical approach to law is suggested by Felix Cohen's comment about U.S. law:: "Telescoped into a century and a half, one may find changes in social, political, and property relations which stretch over more than 30 centuries of European civilization. The toughness of law which keeps it from changing as rapidly as social conditions change in our national life is, of course, much more serious where the rate of social change is 20 times as rapid. **The Handbook of Indian Law**, p xiii

Governments

Secular information

Religon

Law

We do not study here the obvious immediate extreme risks posed by advanced weapons. Nor does it deal with the well known risks of technology, such as environmental impact. But by empirically studying and analyzing the primary technology of writing and the risks associated with its spread, we might well gain an understanding of derivative risks.

Risk assessment

The global risk implications of technology focused
On an empirical and analytic appraisal of
The technology of writing.

Risk management

Missing mathmatics of
The technology of writing

"**Writing**" is a term that we will use most often to also refer to "secondary orality", a concept developed by Walter Ong to describe the state of mind, at the individual and group level, produced through experience with the technology of writing:
"Secondary orality is founded on—though it departs from—the individualized introversion of the age of writing, print, and rationalism which intervened between it and primary orality and which remains as part of us. History is deposited permanently, but not inalterably, as personality structure."(Rhetoric, Romance, and Technology: Studies in the Interaction of Expression and Culture. Ithaca: Cornell University Press, 1971: chapter 12, paragraph 2)

Oral systems

Written systems

Electronic technology

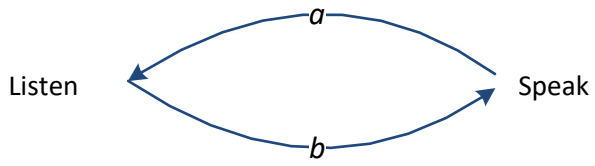
Other technology

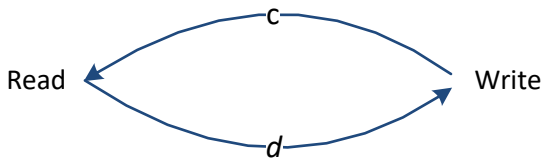
Writing is not usually thought of as a technology
This situation has produced two types of genocide:
1. Destruction of pristine oral cultures by invading cultures dependent upon writing.
2. Destruction of cultures highly dependent upon writing by dominant groups without writing, or cultures with pathological social structures see diagram yy.

Writing is the root technology supporting all advanced technologies. If we cannot assess and manage the risks of writing, what hope is there to control the risks of other technologies?

NODE:	TITLE:	Context Diagram	NO.:

Category Theory representation for objects Listen, Speak and Read, Write

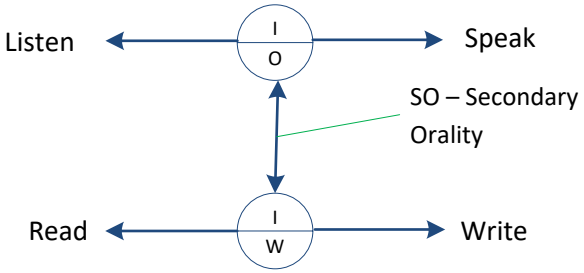




Morphisms a and b are not isomorphic, they are not inverse processes. Likewise, morphisms c and d are not isomorphic. Bearing this in mind, we simplify these diagrams using morphisms represented with double headed arrows, even though such representation more typically would imply isomorphisms.

Listen ⟷ Speak Orality = O

Read ⟷ Write Writing = W

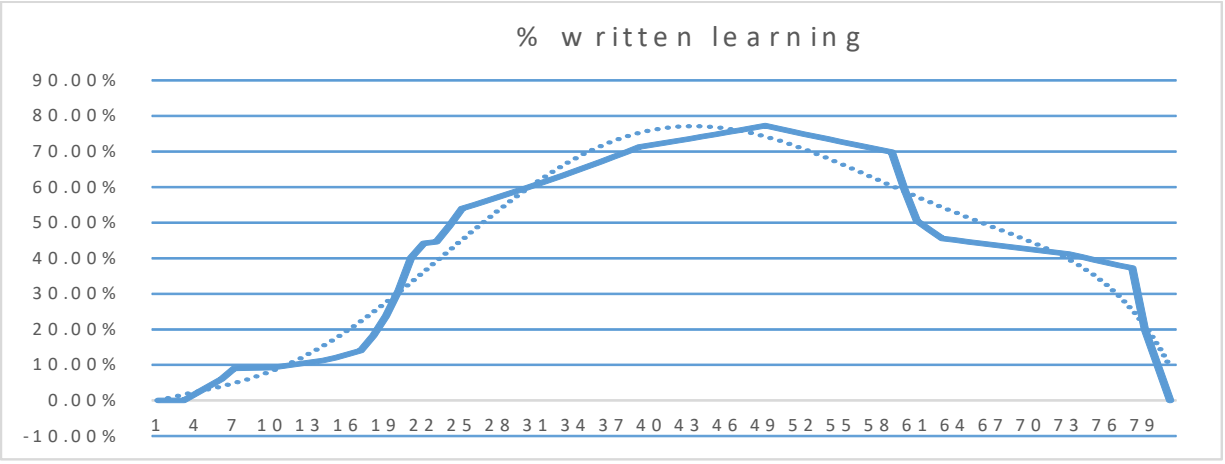


Oral – impermanence, words spoken may not be edited

Writing – permanent records. Words written may be edited.

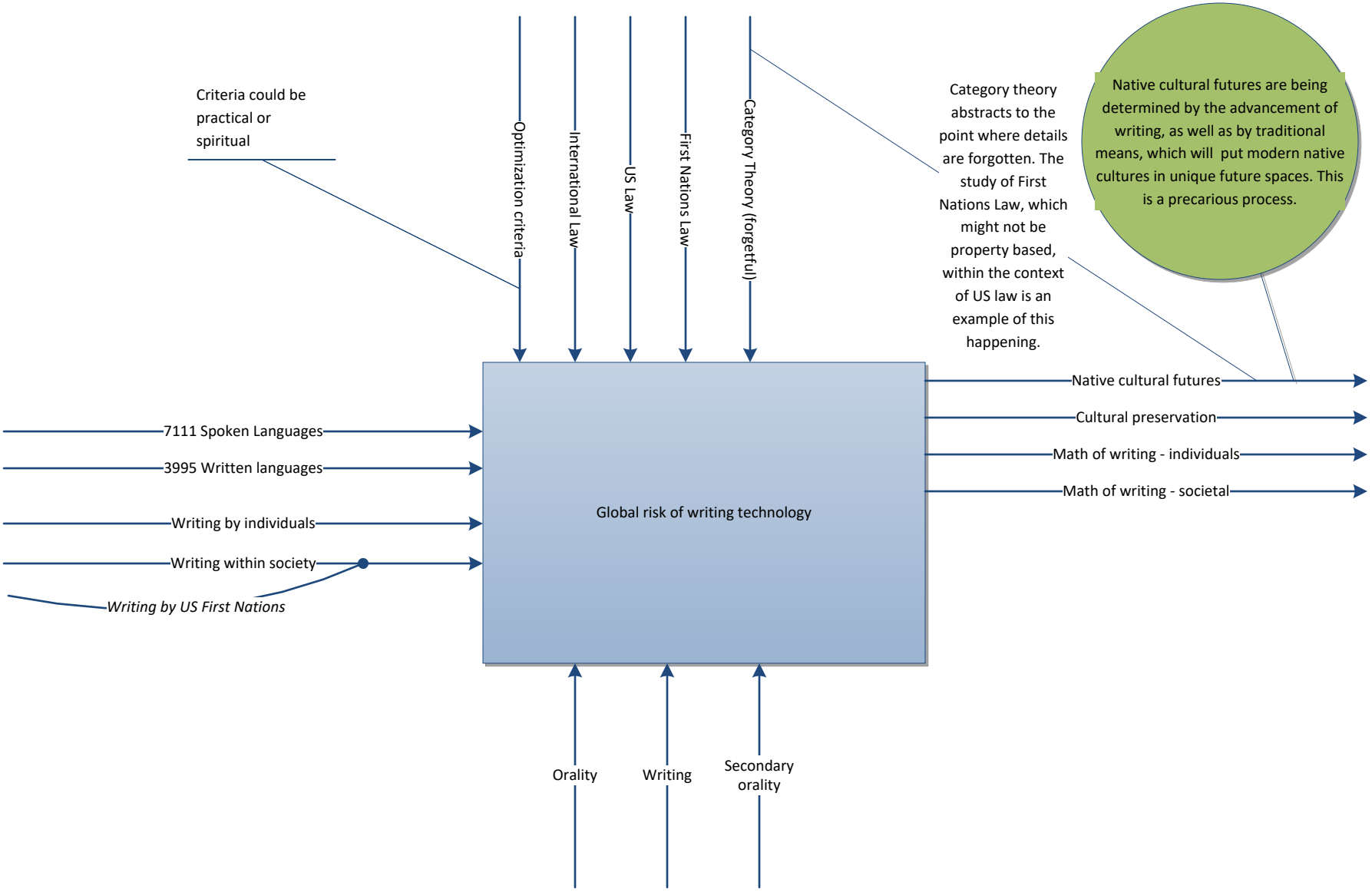
These circular symbols represent the identity of either: 1) an individual or 2) a group or society. Likewise, SO, secondary orality may be construed as applying to an individual or a group.

Hypothetical percent of learning through writing processes for a person living 81 years



Starting with an initial condition at birth of Oral learning = 100% and Written learning initial = 0%, the graph on the left is a hypothetical curve of the lifetime daily means of the percent of learning by the Writing dyad.

NODE:	TITLE:	Orality, Writing, Secondary Orality	NO.:



NODE:	TITLE:	NO.: