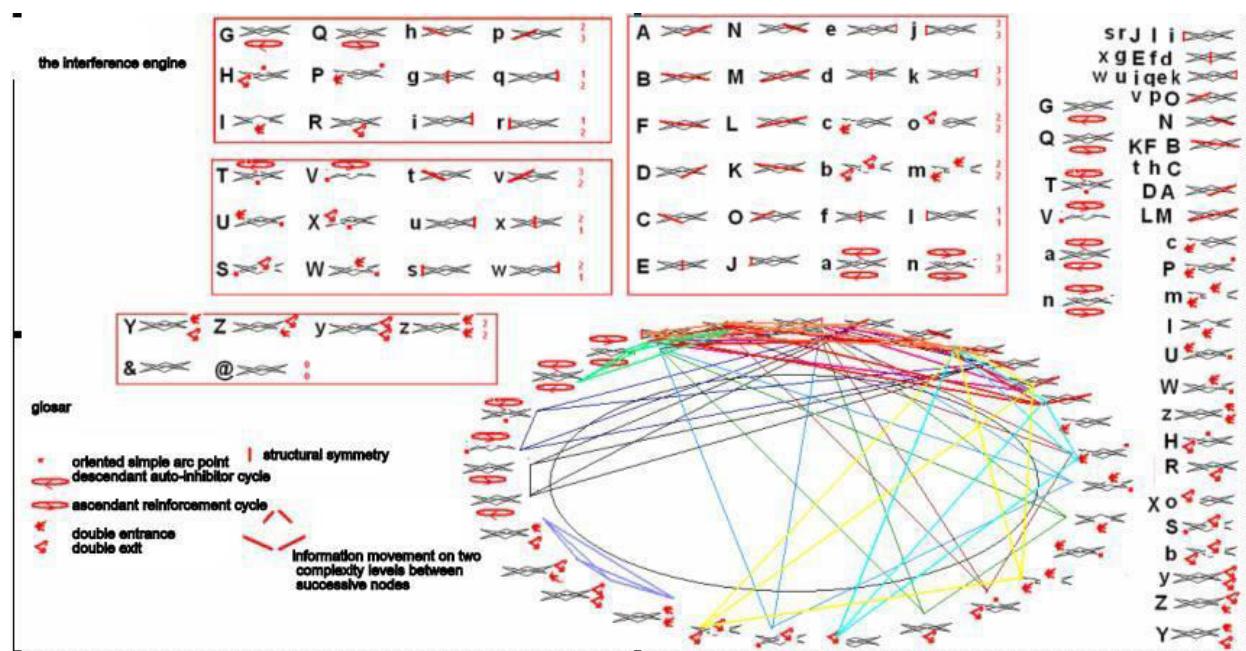


55.THE INFERENCE ENGINE

The mechanism of inferences necessary for designing and structuring the IT platform needed for the professional network, is summarized below. Although without artificial intelligence we cannot reach the crisis resolution objectives, the inferences made in using the platform will contribute to the efficiency of the human adaptation to the cognitive leap needed to solve the crisis.

The general mechanism of the inference engine is given by the trial-error-correction-replay-learning system. The basis of the general mechanism is given by the information distances and their sub-distances, if any, as well as the modalities of association in feedback packages generated by each informational distance separately. Each new operation generates informational distances and structuring particularities specific to it.

Thus for the main informational distances given by arcs and orientations, by the distance created by the associations given by the operation of concatenating the feedback, by the packing of the letter folders in the table of colored fields, at the moment ignoring other informational distances we have the following inference mechanism:



At the level of the structures obtained by concatenating the feedback packages noted with letters we can find structures that mimic automorphisms.

2

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	@
A	-	-	N M O F E D V X W	-	-	j k l i a b c t u s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B	-	-	M O N E D F X W V	-	-	k i l j a b c t u s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C	-	-	O N M D F E W V X	-	-	i j k b c a s t u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D	O N M D F E W V X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
E	N M O F E D V X W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
F	M O N E D F X W V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
M	K J L C B A S U T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	J L K B A C U T S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
O	L K J A C B T S U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
V	P R Q H G I @ Z Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
W	R P G I H Z Y @	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
X	Q P R I H G Y @ Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
@	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
a	e d f o n m v x w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
b	f d m o n w v x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
c	d f e n m o x w v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
f	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
g	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
h	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
i	j a c b k j l u t s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
k	b a c l i j k s u t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
l	c b a j i l k j s u t	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
n	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
o	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
p	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
r	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
s	i h g p r q z y & z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
t	g i h q p r q z y & z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
u	h g i r q p r q z y & z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
&	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Fig. 5 macro-letter concatenation table (generating substructures for "I am")

For example, there are a lot of letters that are concatenated with themselves obtaining the same basic letters. These are D, E, F, J, K, L, Y, Z, @. This set plays the role of the automorphism $f(x) = x$. Other packages of letters are associated with each other on other properties, the

order on diagonals corresponding to the order of the generators or the reverse order of the generators, these packages corresponding to the other automorphisms and being unevenly distributed in the structure of the concatenation table. Other aspects that differentiate the information packages are related to the way of structuring the packages of circular permutations associated with a field consisting of three packages glued together.

The mode of association is strictly related to the development history starting from automorphisms on the development of fractal structures. The significant informational distances in this case are: the permutation package and its order in the cluster of three glued packages, the meaning of reading the letters from the marked packages, the way of obtaining the permutations, the placement in one of the four fields of the tables.

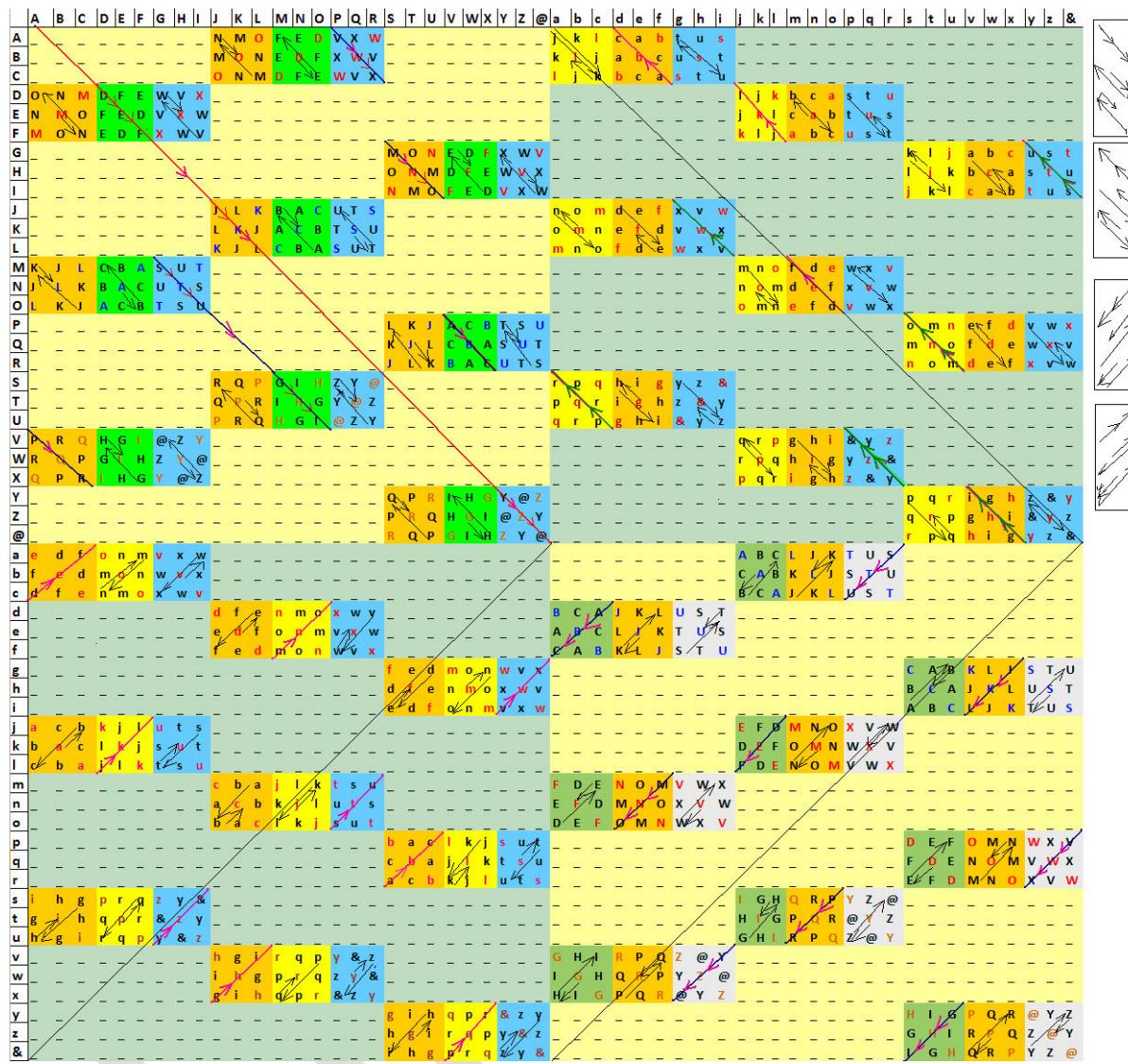


Fig 6 representation by permutations of the transformations of the automorphisms of the projective right

In figure 6 we can notice two sets of two directions on two directions each, on each sense and direction three types of permutations of the positions of the elements on the diagonal that generate the directions. These transformations are associated with classes of generators with a relatively regular structure but with symmetry breaks in relation with the initial relation of the letters.

The new transformations given by the permutations with symmetry breaks generate both a new theorem of structural isomorphism and

factor classes of elements that can be confused with each other when the new generated informational distance is taken as the sole criterion. The symmetry breaks on the other hand are the generators of the spatial forms generated by the classes of generators.

These kinds of configurations with associated properties are generated by the inference engine.

Symmetries in concatenation

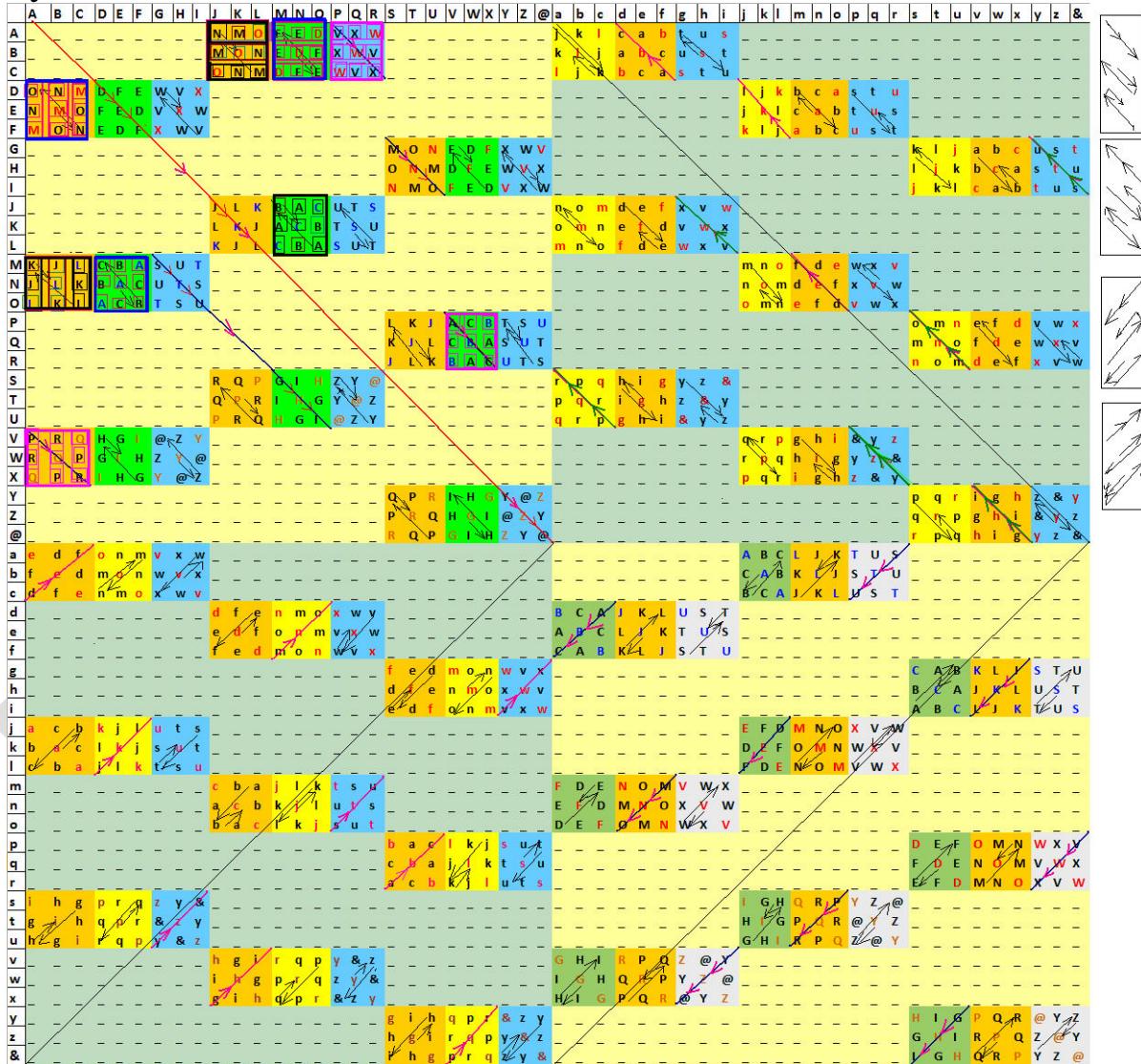


Fig. 7 partial symmetry of the concatenations

The concatenations are grouped into packages as follows: We use the following convention the first letter concatenated with the second generates

the third of each package. We will obtain for the first quadrant in the above mentioned procedure the following set of concatenations on the clusters of the modules of the three modules attached from the concatenation table (see fig. 8):

<i>AJN, NAJ, JNA BJM, JMB, MJB CJO, OCJ, JOC</i>	<i>AKM, MAK, KMA BKO, KOB, OBK, CKN, MLC, LCM</i>	<i>ALO, OAL, LOA, BLN, NBL, LNB, CLM, MCL, LMC</i>
<i>AMF, MFA, FAM BME, EBM, MEB CMD, DCM, MDC</i>	<i>ANE, NEA, EAN BND, DBN, NDB CNF, FCN, NFC</i>	<i>AOD, ODA, DOA BOF, FBO, OFB COE, ECO, OEC</i>
<i>APV, VAP, PVA BPX, XBP, PXB CPW, WCP, PWC</i>	<i>AQX, XAQ, QXA BQW, WBQ, QWB CQV, VCQ, QVC</i>	<i>ARW, WAR, RWA BRV, VBR, RBV CRX, XCR, RXC</i>
<i>DDD, EEE, FFF</i>	<i>JJJ, KKK, LLL</i>	<i>YYY, ZZZ, @@ @</i>
<i>DGW, GWD, WDG EGV, GVE, VEG FGX, GXF, XFG</i>	<i>DHV, HVD, VDH, EHX, HXE, XEH FHW, HWF, WFH</i>	<i>DIX, IXD, XDI EIW, IWE, WEI FIV, IVF, VFI</i>
<i>GSM, SMG, MGS HSO, SOH, OHS JSN, SNJ, NJS</i>	<i>GTO, TOG, OGT HTN, TNH, NHT JTM, TMJ, MJT</i>	<i>GUN, UNG, NGU HUM, UMH, MUH JUO, UOJ, OJU</i>
<i>GYX, YXG, XGY HYW, YWH, WHY IYV, YVI, VIY</i>	<i>GZW, ZWG, WGZ HZV, ZVH, VHZ IZX, ZXI, XIZ</i>	<i>G@W, @VG, VG@ H@X, @XH, XH@ I@W, @WI, WI@</i>
<i>JPU, PUJ, UJP KPT, PTK, TPK LPS, PSL, SLP</i>	<i>JQT, QTJ, TJQ KQS, QSK, SKQ LQU, QUL, ULQ</i>	<i>JRS, RSJ, SJR KRU, RUK, UKR LRT, RTL, TLR</i>
<i>PYT, YTP, TPY</i>	<i>PTS, TSP, SPT</i>	<i>P@U, @UP, UP@</i>

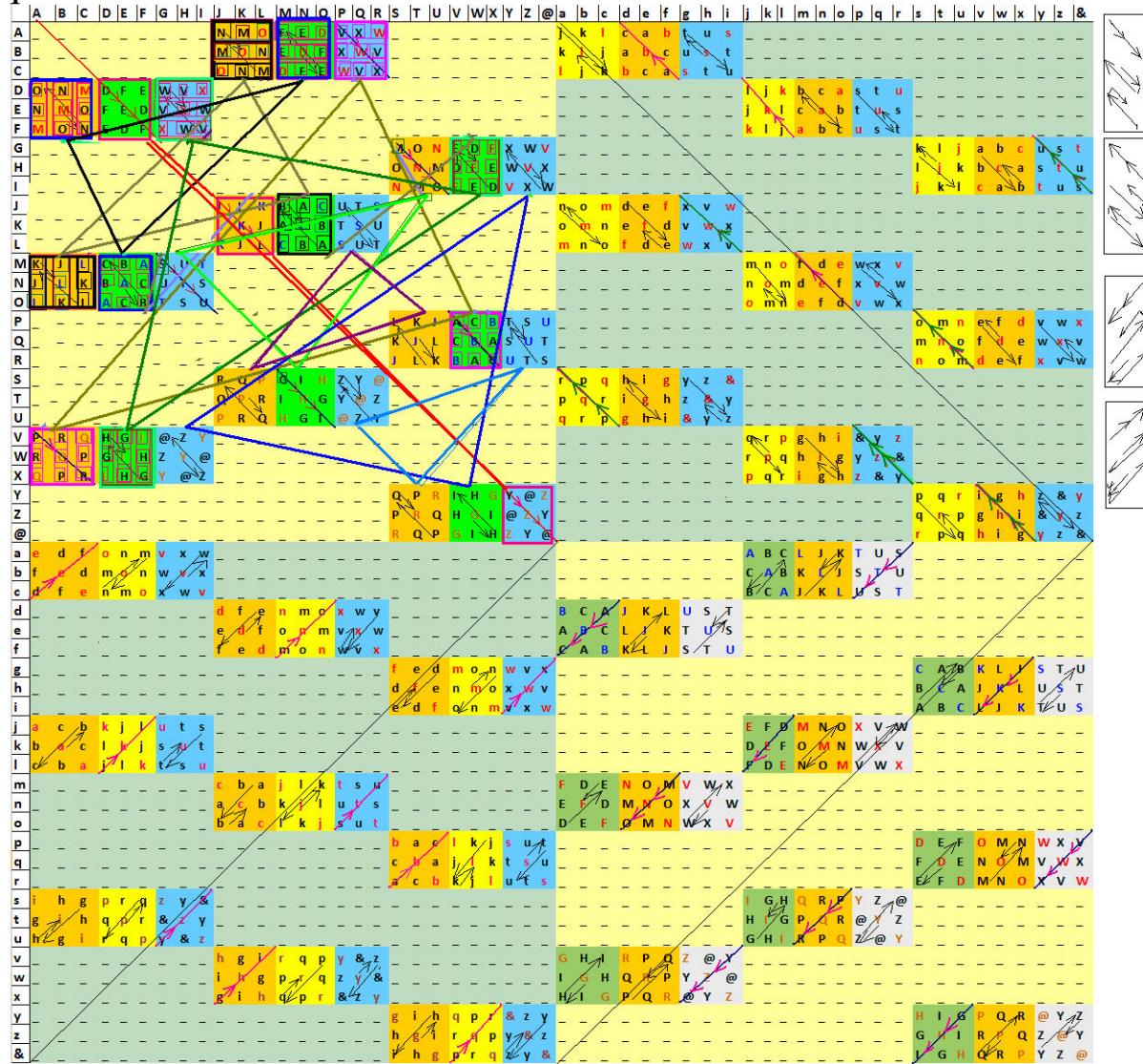
QYS, YSQ, SQY
RYU, YUR, URY

QZU, ZUQ, UQZ
RZT, ZTR, TRZ

Q@T, @QT, TQ@
E@S, @SR, SR@

7

Fig. 8 the concatenations between the modules of the clusters in the first quadrant



It is observed that the concatenation links on the mentioned rule are made between packages from different clusters which creates two types of informational links: created by the concatenation or created by the links

between the cluster modules. This creates a complex interweaving of information that can thus be deciphered by the inference engine.

The interweaving becomes even more complex on the other quadrants where we find associations only between two fields from different quadrants (see fig. 9)

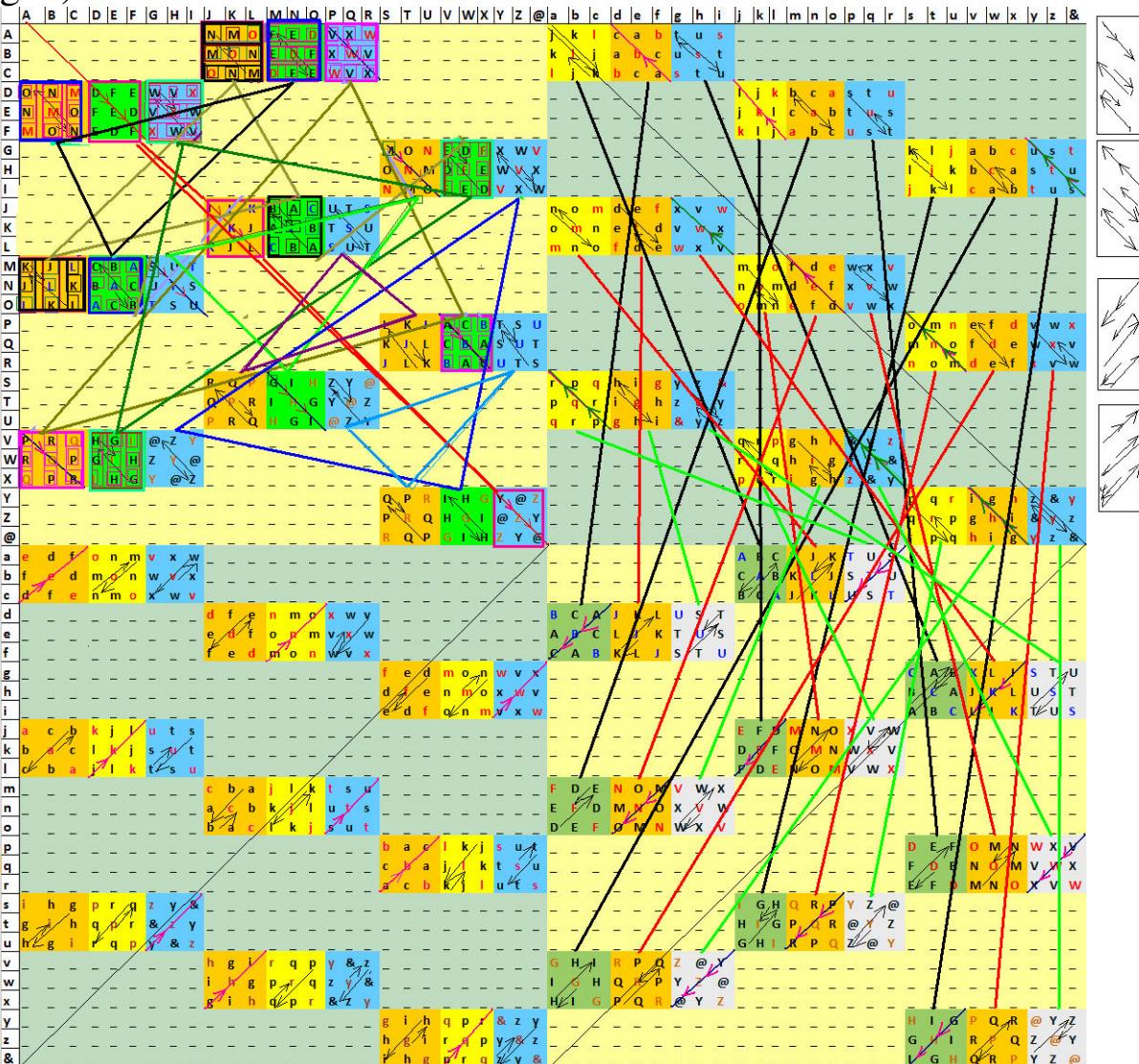


Fig. 9 associations between two other quadrants

The specific concatenations of the two quadrants are:

Aaj-ajA, Abk-bkA, Acl-clA, Bak-akB, Bbl-blB, Bcj-cjB, Cal-alC, Cbj-bjC, Cck-ckC

Adc-dcA, Aea-eaA, Afb-fbA, Bda-Dab, Beb-ebB, Bcf-cfB, Cdb-dbC, Cec-ecC, Cfa-faC

Agt-gtA, Ahu-huA, Ais-isA, Bgu-guB, Bhs-hsB, Bit-itB, Cgs-gsC, Cht-htC, Ciу-iуC

Djl-jlD, Dkj-Kjd, Dlk-lkD, Ejj-jjE, Ekk-kkE, Ell-lle, Fjr-jrF, Fkl-klF, Flj-ljF

Dmb-mbD, Dnc-ncD, Doa-oaD, Emc-mcE, Ena-naE, Eob-obE, Fma-maF, Fnb-nbF, Foc-ocF

Dps-psD, Pqt-qtD, Dra-raD, Ept-ptE, Equ-quE, Ers-rsE, Fpu-puF, Eqs-qxF, Frt-rtF

Gsk-skG, Gtl-tlG, Guj-ujG, Hsl-slH, Htj-tjH, Huk-ukH, Isj-sjI, Itk-tkI, Iul-ull

Gva-vaG, Gwb-wbG, Gxc-xcG, Hvb-vbH, Hwc-wcH, Hxa-xaH, Ivc-vcl, Iwa-waI, Ixb-xbI

Gyu-yuG, Gzs-zsG, G@t-@tG, Hys-ysH, Hzt-ztH, H@u-@uH, Iyt-ytl, Izu-zuI, I@s-@sI

Jan-anJ, Jbo-boJ, Jcm-cmJ, Kao-aoK, Kbm-mbK, Kcn-cnK, Lam-aml, Lbn-bnL, Lco-coL

Jdd-ddJ, Jll-llJ, Jff-ffJ, Kdl-dlK, Klf-lfK, Kfd-fdK, Ldf-dfL, Led, edL, Lfe-fel

Jgx-gxJ, Jhu-huJ, Jiw-iwJ, Kgv-gvK, Khw-hwK, Kix-ixK, Lgw-gwL, Lhx-hlX, Liv-ivL

Mjm-jmM, Mkn-knM, Mlo-loM, Njn-jnN, Nko-koN, Nlm-lmN, Ojo-joO, Okm-kmO, Oln-lnO

Mmf-mfM, Mnd-ndM, Moe-oeM, Nmd-mdN, Nne-neN, Nof-ofN, Ome-meO, Onf-nfO, Ood-odO

Mpw-pwM, Mqx-qzM, Mrv-rvM, Npx-pxN, Nqv-qvN, Nrw-rwN, Opv-pvO, Pqw-qwO, Orx-rxO

Pso-soP, Ptм-tmP, Pun-unP, Qsm-smQ, Qtn-tnQ, Qno-noQ, Rsn-snR, Rto-toR, Rum-umR

Pve-veP, Pwt-wtP, Pxd-xdP, Qvf-vfQ, Qwd-wdQ, Qxe-xeQ, Rvd-vdR, Rwr-weR, Rxf-xf

Pyv-yvP, Pzw-zwP, P&x-&xP, Qyw-ywQ, Qzx-zxQ, Q&v-&vQ, Ryx-yxR, Rzv-zvR, R&w-&wR

Sar-arS, Sbp-bpS, Seq-eqS, Tap-apT, Tbq-bqT, Tcr-crT, Uaq-aqU, Ubr-brU, Ucp-cpU

Sdh-dhS, Sei-eiS, Sfg-fgS, Tdi-diT, Teg-egT, Tfh-fhT, Udg-dgU, Ueh-ehU, Ufi-fiU

10 Sgy-gyS, Shz-hzS, Si&-i&S, Tgz-gzT, Th&-h&T, Tiy-iyT, Ug&-g&U, Uhy-hyU, Uiz-izU

Vjq-jqV, Vkr-krV, Vlp-lpV, Wjr-jrW, Wkp-kpW, Wlq-lqW, Xjp-jpX, Xkq-kqX, Xlr-lrX

Vmg-mgV, Vnh-nhV, Voi-oiV, Wmh-mhW, Wni-niW, Wog-ogW, Xmi-miX, Xng-ngX, Xoh-ohX

Vp&-p&V, Vqy-qyV, Vrz-rzV, Wpy-pyW, Wqz-qzW, Wr&-r&W, Xpz-pzX, Xq&-q&X, Xry-ryX

Ysp-spY, Ytq-tqY, Yur-urY, Zsq-sqZ, Ztr-trZ, Zup-upZ, @sr-sr@, @tp-tp@, @uq-uq@

Yvi-viY, Ywg-wgY, Yxh-xhY, Zvi-viZ, Zwg-wgX, Zxh-xhZ, @vi-vi@, @wg-wg@, @xh=xh@

Yyz-yzY, Yz@-z@Y, Y&y-&yY, Zy&-y&z, Zzy-zyZ, Z&z-&zZ, @yy, yy@, @zz,zz@, @&&-&@

Inferences are not only the attribute of artificial intelligence, they can be just as good the attribute of trained people to think and make logical connections between phenomena or happenings. However, this implies a certain type of mental training done at school age, or in the family. Another way is online education on educational networks organized in colorful centers, in which students learn from each other and from teachers who teach them to think.