

## THE TECHNOLOGY OF PSYCHOLOGY

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**Abstract.** *In this article we will talk generally about information, its development and we will concentrate on the information in our brain, from the moment we have an inspiration to the moment it will be transmitted by an electronic carrier. We will measure it and we will show an algorithm that measures the loss of information. We will also show that there are information limits in our brain and finally express our conclusion.*

### Introduction

At the present electronic times, communications are considered to be a science and hold a fundamental role in the development and elaboration of our world.

Nevertheless, even today, a major part of our research is concentrated on the loss of information during its transmission, codes, protocols, recognition techniques and error corrections. These are some issues where specialized scientists are looking into it in order to prevent information loss. At almost the same way we have tried to assimilate human brain with a complicated communication network.

According to researchers we have loss of information during its transmission from one mental state of the brain to another.

Let us take things from the beginning. When during our century quantum mechanics appeared, many thought that the mystery of human brain function would be solved. However, let's remember Heisenberg's principle of uncertainty. It is impossible to appear at the classical level the exact point and impetus of a particle, at the same time. Furthermore, the Schrodinger's equation describes us the way wavefunction develops during time (a particle's curve of places and impetus). If we accept the fact that wave function describes "reality" then nowhere will be shown the lack of determinism, which is considered to be an intrinsic characteristic of quantum theory. However, every time we perform a measure by enlarging quantum phenomena at classical level we change the rules.

Now we adopt a procedure that uses the metre's square of quantum breadth probability in order to have classical probability.

We observe that at the brain function important phenomena take place (such as ions with their electric loads, potassium and sodium's gates, the chemical potential which determines the "open" or "closed" character of the transmission of nervous signals, the chemistry of neurotransmitters).

Yet, every usual quantum description of our brains is problematic since it consents the "observation" as something substantial for the exact interpretation of the conventional quantum theory. The conventional theory does not give a distinct law about the way quantum mechanics could include the meaning of "self-observation", so it can not be adapted to the human brain. With today's standards the procedure of thought is considered to be not algorithmic. That of course does not mean that during time pass, laws which will allow us to "algorithmic" thought, will never be related to us.

In conclusion, the mental situation that the brain has while we visualize and inspire an idea, it belongs to the phenomena (such as weather) which are known as "chaos". With the increased entropy this mental situation makes us think that it contains the absolute amount of information.

So, every human being has an instant contact with this "area" and restrains a small amount of information. The rest is the loss of information due to the restrictions of the conscious, which is affected by imponderable internal and external factors. These restrictive factors are:

Senses - environment (PE), health (YG), heredity (KS), sentimental situation (SY), internal - organic factors (ES), random mutability (K), which happen because of certain chaotic functions of the brain. More specific, an effort for mathematical expressing of information loss is based on the known law of Shannon from information theory:

$$P_n = \log \frac{\text{Postreriori Probability}}{\text{Priori Probability}} \quad (1)$$

Total probability is considered to be the 100% of information and we put 100.

Partial probability is the summation of all the restrictive factors divided by their number of factors in order to have the average:

$$P_{n1} = \log \frac{(PE + SY + ES + KL + YG + K)/6}{100} \quad (2)$$

These stand for the transference of the information from “chaos” to inspiration. The next stage is the transference of the information from inspiration to thought. We have the same rules here too, only now the restrictive factors are:

Intelligence quotient (IQ), instant attention (PS), personality (PR) plus the “filters” of the previous stages (A1):

$$P_{n2} = \log \frac{(A1 + IQ + PS + PR)/9}{100} \quad (3)$$

The next stage is the transference of information from thought to speech. The restrictive factors are: Memory (MN), articulation ability (IA) plus of course the “filters” of previous stages (B1)

$$P_{n3} = \log \frac{(MN + IA + A1 + B1)/11}{100} \quad (4)$$

The next stage is the transference of information from speech to writing. The restrictive factors now are time (T) and of course the filters of previous stages (C1)

$$P_{n4} = \log \frac{(T + C1)/12}{100} \quad (5)$$

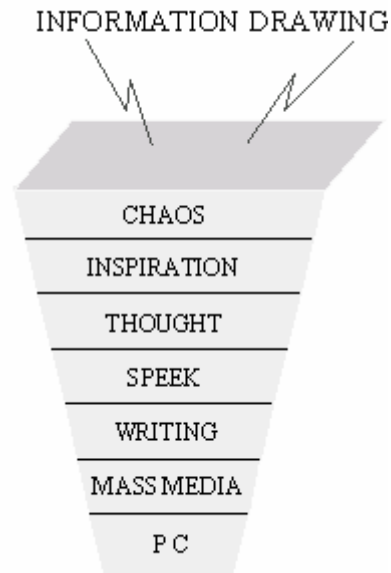


Figure 1 Information drawing

From figure 1 we can infer the way that information is being reduced. The happens because of continuous feedback of the filters.

### Algorithmic of information losses

From the drawing in figure 2 we can see the information transmission in the brain that fades out from one stage to another during four algorithmic procedures.

### Algorithm 1

Finding the information transmission in the stage from chaos to inspiration, we have the next steps.

```

Step 1      Initialize counter
            CU = 100
Step 2      Set K = RND*100 (the
            chaotic number)
Step 3      Set
            Postreriori Probability = 100
            Set Priori Probability = A1
            Where A1=Input Stadio 1
Step 4      Input PE (environment), YG
            (health),
            KS (heredity), SY (sentimental
            situation),
            ES (internal organic factors),
            K (random mutability)
Step 5      Compare A1 for the limits.
            And the limits are 500 and 1.
            If A1>500 or A1<1 then go step 3.

```

Step 6

Compare

$$P_{n1} = \log \frac{\text{Priori Probability}}{\text{Postreriori Probability}}$$

**Algorithm 2**

```

LOCATE 10, 35: PRINT "FROM CHAOS
IN INSPIRATION"
CU=100
K=RND*100
A1=PE+YG+KL+ES+SY
5 INPUT "GIVE SENSES-
ENVIRONMENT"; PE
INPUT "GIVE HEALTH"; YG
INPUT "GIVE HEREDITY"; KS
INPUT "GIVE SENTIMENTAL
SITUATION"; SY
INPUT "GIVE ORGANIC FACTORS"; ES
DO UNTIL INKEYS <> ""
DO WHILE CU>0
A = (A1 + K)/6
PN = A/100
PN1=Log (PN)
CU=CU-4
CLS
IF A1>500 THEN GO TO 10
IF PE<1 THEN GO TO 10
IF YG<1 THEN GO TO 10
IF KS<1 THEN GO TO 10
IF ES<1 THEN GO TO 10
IF SY<1 THEN GO TO 10
LOCATE 10, 30: PRINT
"INFORMATION'S WASTE%="; A
LOCATE 16, 15: PRINT "***THE
INFORMATION IS ** ="; PN1
*
*
*
10 PRINT "YOU ARE OUT LIMITS"
GO TO 5

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These words are e.g. Love, hate, jealousy, joy, sorry, anger, guilt, fanaticism, egoism, cyclothymia, ....

At the drawing below it is shown the brain activity that a person must have in order to avoid errors. That is every spot that is found on the area of the graphic, expresses a situation that a person can be found in.

*Marginal area* is the point where a person has been misinformed – not informed – over informed and these situations are extreme. (He may or he may not think right)

*Upper limit* is the point where a person has deep knowledge. Beyond that limit he does not think right (insanity).

*Lower limit* is the point where a person has little knowledge. Beyond that point he does not think right (foolishness).

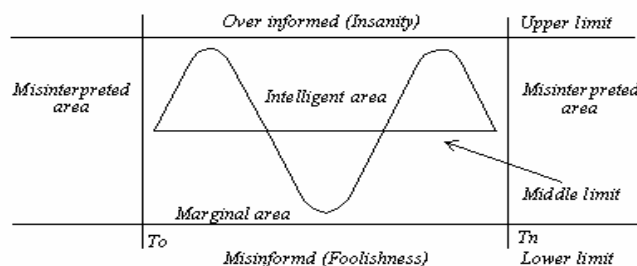
*Middle limit* is the point where a person has middle knowledge. The brain thinks without overexcitation, which is a middle mental situation.

*To – Tn* They are the chronic limits of information receiving. That means that in this period, the brain has the capacity to receive information.

These can be measured each time with Shanonn's law of information.

$$i = \log \frac{\text{Priori Probability}}{\text{Postreriori Probability}} \quad (6)$$

*n = Any chronical moment*



here is misinterpretation.

**Information limits**

There are words that stimulate the brain and create sentimental-emotional, cyclothymic activity.

**Equivalence**

Man		Computer	
Sense	Definition	Technical equivalent	Definition

		<b>name</b>	
Man	The most developed kind of animal on earth, provided with understanding and articulated speech, with superior emotions and spiritual improvement	Computer robot	Machine that can executes predetermined functions
Perception	Capacity of the mind to comprehend, to form senses and equivalent functions	Nettalk	PC Network where there is perception capacity
Memory	Recall memory, everything that one remembers	Ram	Specific part where information is temporally stored
Conception	Mental function which helps us comprehend, understand things	Data processing	It is the processing of data with camera, microphone, etc.
Speculation	Specific, expressed thought	Process	It is the process of through adding-subtracting function
Pain	Physical or psychological feeling intense unpleasant and unbearable (ironically) interesting	Strain	It is the excessive consumption of an electronic part and as a result it is strained
Idea	Form where phenomena of reality are conceived from the mind, general meaning	Combination software	Neural network, where after parallel processing of data, news are created

## Conclusions

Finally, until today science has managed to find the 10% of brain function and 100% of computer function. This fact is absolutely normal since the “god” of computer is man.

So, since we manufactured it, we know its architecture.

But who knows our brain architecture?

All we have to do is ask our God, which is of course impossible, as if it would be, if computers could ask us.

We are trying to manufacture computers the same way we created without knowing how we are created, so the result is to “create” men-computers of low standard.

Nature has provided us with a brain that reaches a certain level, such as 10. This number (10) is also our limit. Before number one and after number ten there is chaos. So it’s logical that

brain manufacture which is beyond number 10, is absolutely unknown.

It is certain that in order to find something that is beyond us, we will have to overcome our limits and that is dangerous because at today’s standards this is insanity.

The computer’s limits is the reason why computers cannot comprehend their existence. These limits are of course up to number 10. Let’s assume that the limit is 5. So before number 1 and after number 5 there is chaos for the computer. But the chaos that computer understands is logical to us. So while we comprehend is own. A solution would be to computer’s limits a grade up to our own.

This happens day by the day because of the manufactured computers (e. g. equation programs) that we have accomplished up to now substitute an important part of our brain function.

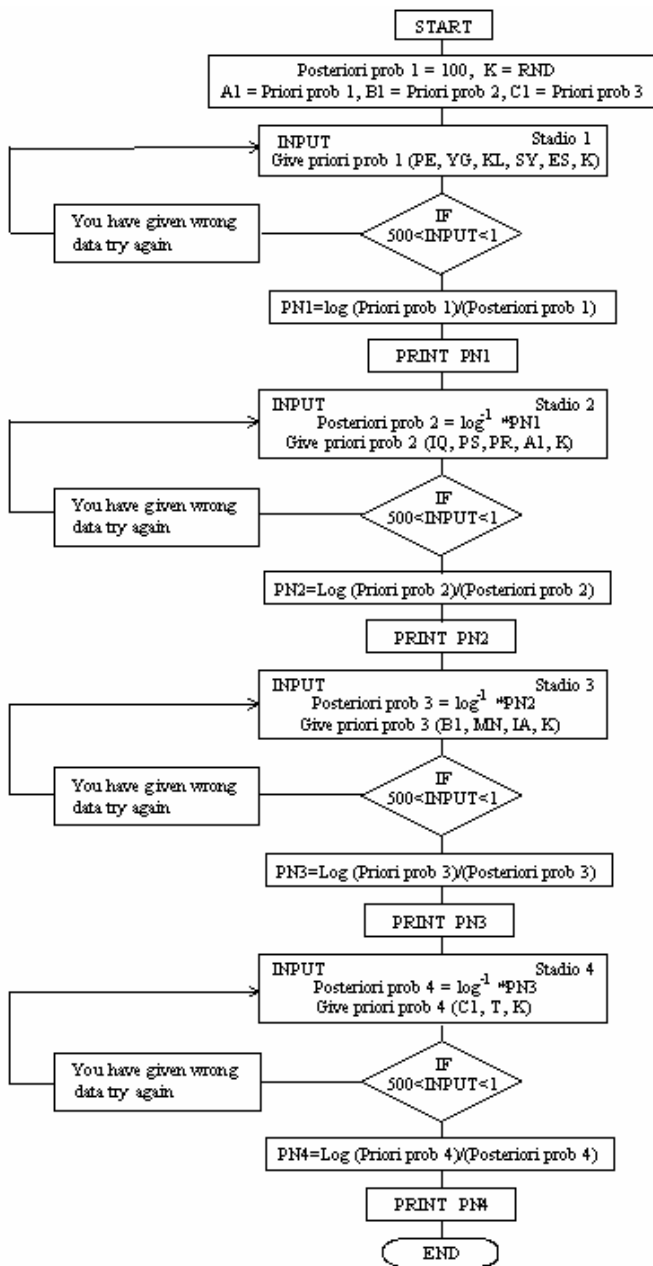


Figure 3. Flow-chart

Scientists use these programs for higher and further thoughts are closer to the upper

hypothetic limit and as a result we approach insanity and enter the area of chaos without going crazy!

Time is a part of ourselves that is never disconnected to us.

We carry it from the day we are born to the day we die and we have transferred this part (time) to the computers, too.

They don't "live" without it neither do we. However, in that section we have progress because computer time goes by very quickly and as a result it does "labour" in less time than we do.

Finally, what the computer does not have yet is personality and by saying "personality" we mean understanding of existence.

But how is it possible to give existence to something since we haven't even understood our own?

So we have a lot of work to do in order to accomplish all this and we believe we will someday make it happen, when we will get perception in such a grade as to be acknowledged as "superior divined" creatures!

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