INNOVATIVE MATHEMATICAL METHOD TO "WRITE" BOOKS AND MAKE DISCOVERIES

Warning to readers

Although this paper is based on sound mathematical principles, it must be read for entertainment, educational, philosophical or metaphysical purposes only. The methods that are explained in this essay are not intended to be put in practice in real life. If the reader or a third party does such a thing, he (she) may lose all the assets through legal suits, including claims about intellectual property rights or may confront criminal accusations and end in jail.

I - Introduction

There is an abstract mathematical "Library" "written" in binary system (see Note 1) where the texts of all books published and all the others waiting to be published in the future are already "written" and encoded (see Note 2).

The texts that have not been published may be brought to public light by computerized methods with minimum participation of human mind. Eventually this finding will allow artificial intelligence freaks to develop an artificial intelligence model as bright as the mind of the most brilliant geniuses.

II - Explanation

1- If, when we write a text about any subject matter (like literary, musical or chemical compositions, etc.) do it encoding the symbols (letters, musical notes, etc.) by the mathematical binary system (see Notes 1 and 2 before continuing reading) the line of zeros and 1's that is generated will sum an X decimal quantity.

If, to do the codification of the symbols of a text we use a unique comprehensive binary code (CBC), as defined in Note 2, with an exclusive code for each one of the symbols that are used in all kind of human or intra/inter computer(s) communication,

2 - then, the final line of zeros and 1's of each text (that may be different to any other at least for one symbol) about any subject matter (including absurd or meaningless, chaotic texts)

must sum a decimal quantity different from any other imaginable text of any kind. It is as if each text has its own, exclusive, decimal footprint. We are sure that empirical experience must validate this assertion.

It is an axiomatic, self-evident truth that all decimal quantities are represented, and can be predicted along an abstract, infinite line of number one's (111111….1),

3 - therefore, based on the premises stated in the precedent paragraphs, we can affirm that all imaginable texts about any subject matter, already written or to be written correspond to a unique, exclusive point in space, to a specific, predictable, number one (1) in the infinite line of one's, that we will call "Line Library " (LL).

Through the process of reverting the decimal quantity, represented by a number one (1), to its counterpart in binary notation and the latter one to the symbols encoded, see Note 2, (letters, numbers, etc.) the "Line Library" may be explored using appropriate computerized methods. That with the purpose to bring to public light useful and/or publishable texts. By that way the texts can be discovered before any human mind write them.

III - Schematic, basic elemental example for a method to explore the "Line Library (LL), using computerized means.

In order to do the exploration of the "Line Library", that can be systematic or at random, we suggest to perform the following basic steps:

a- The creation by an individual person or a team, of an example (out of a myriad of possibilities), of a comprehensive binary code (CBC), see Note 2; preferably, with free access to everyone.

b- The determination by an individual person, or a team, of the methodology (that may include math tools) to follow in order to choose which segments or positions of one, in the "Line Library " will be explored at any given time. For this task it may be helpful to do a "mapping" of the "Line Library" by locating in it the number one's (1) that pertain to, as many as possible, the texts of the written works already published. This procedure, hopefully, may reveal which segments of the "Line Library" are likely prone to render useful or publishable texts.

c- The creation of a version (out of many possibilities) of a computer program that we will call "Reader" (R), to do the following functions:

(1) Identify the decimal quantity that correspond to the number one (1) position to be studied.

(2) Convert the decimal quantity represented by the number one position to be studied to the equivalent binary cypher.

(3) Using a version of the CBC, supra, determine if the binary cypher:

> (a) en-code symbols used in human communications, if that is the case, reveal them and identify the sort of text (musical, literary, pictorial, etc.) or
>
> (b) en-code a computer program as the type used to run intra/inter computers operations. If it is the last case, reveal it.

(4) Once the sort or type of text is identified, examine it to determine, by computerized methods, if it complies with the applicable standards, including but not limited to, logic, grammar, syntax, punctuation marks, rhythm, etc. The examination can be made by “strainer” like steps. As a whichever example, in the first step the “Reader” may look for the compliance with grammar rules only.

As an example, if it is a literary text, the first words of all sentences must begin with capital letters, of course, within pre-established correctness margins. Those texts (equivalent to a number 1) that does not comply with the standard may be “tagged” and “mapped” by the “Reader” as unworthy, on the spot, without any further test. The same procedure may be followed after each consecutive step.

(5) The texts (equivalent to a number one) that pass all the tested characteristics within the established quality margins evaluated by the “Reader”, must be examined by humans to determine:

> a) if the text is useful and/or of publishable quality, on the negative,

b) discard the text or refine it to make the piece useful and/or of publishing quality.

After that, the number one must be tagged and mapped.

(6) After accumulating some experience and data during the exploration of the “Line Library”, computerized search engines may be developed to make easier the process of finding the useful or meaningful texts.

IV - Commentaries

1 - This first commentary is based in the discovery of the “Line Library”; and in the probability that some kind of efficient “Readers” and “Line Library” search engines may be developed to reveal useful texts (see last paragraph of Note 2) for the human being. Relying on that basis we dare to propose the adventurous, guessed, hypothesis that the human brain actually use the tetrad “Line Library/CBC/ Reader(s)/Search Engine(s)” to accomplish the process of thinking. As occur with any hypothesis this one must be validated by empirical experimentation. If the proposed hypothesis is not validated by experimentation, nevertheless, the fact that the tetrad “Line Library/CBC/Reader(s)/Search Engine(s) may yield texts that equal the thought generated by the human brain, point to the probability that the human thinking process may be described and delineated, by an elemental mathematical model.

2 - Once some version of the CBC may be available to be used for free, all authors, including future authors, should have the nasty experience of finding that their awesome, super advanced, extraordinary writing (that may be of scientific or data processing nature) has had, since the beginning of time a number one in the “Line Library”, waiting for it/him. With no doubt, geniuses of all kind and computer programs and programmers, past, present and future, have been left behind by the Line Library/CBC combination. That combination will be invincible forever!

3 - The inevitable inference from the above commentary is that due to the pair: Line Library/CBC, the human being has lost, at least within the field of communications by symbols, another anthropo-center. That is the center of the sphere of CREATIVITY.

4 - The easiest way to put into practice the trio “Line Library/CBC/Reader” is by taking apart the segment of the CBC that, correspond to modern literary English language. The whole universe of the symbols needed to write plain English is in the keyboard of any computer and they (the symbols) do not exceed two hundred pieces. Any amateur can do the whole trio using only his mind and a good computer. Following a “Reader” like program or by an artisan procedure any folk, just by chance, can discover a text that will equal or surpass the literary quality of any writing of Ernest Hemingway.

The procedure will also make possible that the intellectual property rights of a certain text that will pertain to a future Law, regulation or judicial precedent may be pre-empty by anyone playing the above said, legally risky “computer game”.

5 - The trio “Line Library/CBC/Reader”, may either lead its users to a fountain of wealth and prosperity or to a lethal/legal mud-hole.

Note 1

Explanation of the mathematical binary system

The binary system makes possible to write decimal system ciphers using only two symbols, that is, the zero (0) and one (1), instead of the ten symbols (0,1,2,3,4,5,6,7,8,9) of the decimal system.

The binary system is based in assigning values of powers of 2 (2,4,8,16…) to a line of infinite positions that in some models begins with a first position that as an exception has the value of zero (0) and a second position with a value of one (1). Since for the purpose of represent decimal ciphers in binary system we do not need a position for the number zero (0) we will skip it.

As a rule, the binary values are assigned to positions from right to left, as follow: 16,8,4,2,1.

To give form to a certain decimal cipher a number one (1) is placed in the position that correspond to the value (power of two) to be added to other values and a zero (0) in the positions that are not going to be added to others values.

For example, to form the decimal cipher 18 the binary notation would be 10010. To explain that notation in a visual image, see the following example:

a) Line of binary values: 16 8 4 2 1

b) Line of binary notation of cipher 18: 1 0 0 1 0

Take notice that the first number one (1) from right to left in line b is positioned under the number 2 and the second one (1) is positioned under the number 16. The sum of both values (2+16) equal 18.

It is an evident truth the impossibility that the cipher 18 may be constructed positioning any of the two number 1 in a different location, as indicated in the example above. On the other hand, it is also evident that no other decimal cipher can be constructed positioning the number 1's in the same positions used to construct the cipher 18.

The precedent affirmations are applicable by extrapolation to any other imaginable decimal cipher.

The binary positions with which any decimal cipher is constructed are unique and exclusive for each cipher and will never be interchangeable with any other decimal ciphers. That is an intrinsic characteristic of the binary system as described in this paper.

Note 2

Codification in this paper means the comprehensive representation of all the symbols used in human and intra/inter computer(s) communications, by exclusive combinations of zeros (0) and ones (1) for each symbol. That codification will be cited hereafter as CBC (comprehensive binary code).

The need for the CBC will be made evident with the two contrasting examples, as follow.

First example

The first example is the codification of the word "toenail". To do the codification we choose arbitrarily, among a myriad of possibilities, the following binary code, where each group of four digits represent one letter:

t= 1001

o= 0100

e= 0010

n= 1010

a= 0001

i= 0011

l= 1011

The binary line of the word (with the letters arranged from left to right, see Note 2, is:

t o e n a i l 1001 0100 0010 1010 0001 0011 1011

Without the separation spaces the image of the line would be: 1001010000101010000100111011

The decimal quantity represented by that line is 155,361,595. To validate the correctness of that quantity the reader may use the binary values that correspond to each number one (1) as far as position 28, following the example illustrated in Note 1.

Second example

This example is based on assigning the same codification as the letters of the word "toenail", supra, to a numeric sequence from one to seven (1-7). See the following illustration:

1 2 3 4 5 6 7

1001 0100 0010 1010 0001 0011 1011

Notice that the decimal sum of that binary line is 155,361,595 that is equal to the sum of the binary codification of the word "toenail", supra.

As it has been illustrated through the comparison of the two examples, it is possible that if the same codification is assigned to more than one symbol; two different texts may show the same decimal cipher. To make impossible that such a thing may occur and be sure that the codification of any text will sum a decimal cipher different from any other, is necessary a binary code (CBC) with an exclusive code for each and every one of the symbols (including spaces and formats) used in all types of human and intra/inter computer(s) communication. The CBC definition must include the instruction to establish if the codification of the symbols is going to be from right to left or vice versa.

The CBC may be segmented by subject matters, like music, math, literary languages, etc.

At this point we think it will be proper to say that although in the main body of this essay, to simplify the message we used the word “text” as referring to books, really the word applies to music, motion pictures, graphics, computer programs, designs (including statues and architecture), genomes, chemistry formulas or to ALL and any other type of human or computerized communication that can be represented or defined using symbols.

Theorem synopsis

If,

A text about any subject matter is encode using the mathematical binary system the total line of zeros and 1’s that is generated will sum an X decimal quantity (ex: if m=110, e=101, then me=110101.That total binary line sums a decimal quantity of 106. The above said X decimal quantity may coincide with the decimal quantity of some other different text, but

If,

To do the codification of a particular text an exclusive binary code (EBC) is used for each one of the symbols that are used to write text about all subject matters

then,

the total line of zeros and ones that is generated must sum a decimal quantity different from the decimal generated by the encoding of any other text. It is as if each text about any subject matter has its own decimal fingerprint.

It is a self- evident truth that all decimal quantities are represented, automatically, without human intervention, along an abstract, infinite line of the number one symbol (11111111….1); example: in the line 111111111, the bold 1 represents a 5 and the underline 1 represents a 7 and so on.

therefore,

it can be affirmed that once a model of an EBC may be available, the decimal sum of the binary coding of any possible text encoded in EBC, already written or to be write must correspond to a unique, specific and identifiable number one (1) symbol located in the abstract infinite line of number one symbols (11111111….1..) that I will call “Line Library” (LL)

Once a specific 1 location is identified the, based on the above premises, the binary text encoded in EBC “attached” to it may be revealed.

The Line Library will make possible to use computer programs that I call “Readers” to explore it in a methodical, systematic and exhaustive way to bring valuable texts to public light before any human mind write them.

From now on the greater challenge that the artificial intelligence researchers will confront will be to develop the most advance “Reader(s)” to do the above said exploration. “Readers” may help humans to screen valuable texts out of the Line Library. The tested results of each screening may be indexed to make unnecessary to re-test it.

When the most efficient “Reader” may become a reality the human search for knowledge may shift from writing essays and formulas (equal to think) plus validation to the action of reading valuable texts in the Library Line, plus validation.