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COMMUNICATING e-ECONOMY IN US-CULTURE

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ABSTRACT

The notions of us-crop and us-culture[1, 2, 3] , knowledge based object-KBO[4], FLAHOB = (FLA, HOB) = {(FLA[i], HOB[i]): i = 1, 2, 3 ...}[5, 6, 7], and TASIM[8-12] are well known. In this paper, a communicating e-economy in us-culture in TASIM formal language will be developed. It is actually an abstract flip-flop FTD FLAHOB chameleon token-entity KBO type. A FLA markets-marketing marketer KBO type and a HOB dances-dancing consumer KBO type or vise verse are used in the construction. The necessary background knowledge is available[13, 14, 1-12]. Where, FTD stands for the "Finite Technology Dependent." FLA stands for Flower Logic Array. HOB stands for HOney Bee of human thought. TASIM stands for Tidy Automatic Sequential Information-processing Mechanism.

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Key Words: KBO, us-Crop, us-culture, FTD, FLA, FTD FLA, FTD HOB, market-marketing market KBO type, dances-dancing consumer KBO type.

1 .INTRODUCTION

The notions of us-crop and us culture[2, 3, 4] , knowledge based object KBO[4], FLAHOB = (FLA, HOB) = {(FLA[i], HOB[i]): i = 1, 2, 3 ...}[5, 6, 7] are known. In this paper, a communicating e-economy us-culture in TASIM will be developed. In this development, an abstract flip-flop FTD FLAHOB chameleon token-entity spike KBO market model type will be constructed in terms of FLA KBO and HOB KBO[8]. Where, FTD is standing for the "Finite Technology Dependent." FLA stands for "Flower Logic Array. " "HOB stands for HOney Bee of human thought." TASIM stands for "Tidy Automatic Sequential Information-processing Mechanism." The background knowledge [1-15] is available in the literature. The

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changing trends, in our time, in the fields of business, economy, and management science, etc are pointing out that the existing formal models of markets-marketing- market and dance-dancing consumer systems in the utilization are not satisfactory for meeting the people's needs on the globe of Earth that we live on[13, 14] in the e-age. In this study the abstract flip-flop FLAHOB chameleon token-entity KBO-spikes behave as a set of FLA-state machines in the flip state (or FLA state) and it behaves as a set of HOB assembly languages in the flop state (or HOB-state) or vise verse, will be introduced as a flip-flop system. We interpret that a FLAHOB KBO produces FLA-state machine model types labeled by FLA[i], $i \in N$, in the flip-state for selling them on the HOB markets in the FLA-state; while it produces assembly-language model types labeled by HOB[i], $i \in N$, in the HOB-state for selling them on the FLA markets in the HOB-state. Where, we call each FLA-cluster as a FLA-society while we call each HOB-cluster as a HOB-society. Therefore, an $((m + 1), (n + 1))$-ary dancing us-crop FLA-society KBO type and a $((p + 1), (q + 1))$-ary dancing us-crop HOB-society KBO are relationally generated as a pair for studying and developing a dancing us-culture FLAHOB-society chameleon token-entity KBO type . We think a FLAHOB-society's needs are satisfied by a flip-flop FLAHOB market-marketing-marketers and communicating dance-dancing consumers in properly designed in us-crop and us-culture. This paper therefore has been tried to develop a communicating e-economy in us-crop and us-culture.

The paper has reached its purpose by developing some fundamental definitions and some fundamental theorems. Some conclusions and suggestions are given at the end of the paper.

2. PRELIMINARY NOTES

In this section, the preliminary notions that they are necessary for describing a flip-flop FTD FLAHOB chameleon token-entity KBO type will be introduced into a proper environment E.

Definition 1 Let E be a proper environment for developing a proper us-culture. Let FTD is a brief vocabulary for the statement of "Formal Technology Dependent" and was introduced into E. In this environment E:

(a) A set S of information token-entities (or elements, or objects), each was supported with an extending-contracting memory "o" model type for remembering the information taught to it in the past, be organized as an integrated KBO token-entity under a FTD grammar (or a set of rules) in order to satisfy a set of common goals (or purposes or aims) is called a ***FTD system-S token-entity model*** in E. Each element of a FTD system-S token-entity can be a FTD system-S token-entity in E. Each S can be a compact grid or mobile and distributed system. The total memory in S is called a **collective memory of S**.

(b) A FTD system-S token-entity model with a collectively extendable and contract able memory "o" token-entity in a proper environment E is represented by "o-S". Where, "o" is generally an abstract extendable-contractible memory structure. S is attached (or connected) to "o" by an abstract wired or wireless connection line (or link) of "-".

(c) A FTD o-S token-entity model, in a given proper environment E, which has at least the following 8 token-entity properties, is called an **S KBO token-entity** model of:

(1) A FTD definite goal,
(2) A FTD syntactic structure,
(3) A FTD semantic meaning,
(4) A FTD pragmatic utilization,
(5) A FTD bound or open environment,
(6) A FTD self defense mechanism for defending itself and its proper environment of "o-S.E", where o-S.E stands for proper environment of o-S.
(7) A FTD logical threshold dependent operating-system token-entity model element (or object)-- coded (or described) in an arbitrary abstract formal HOB-language token-entity model that it has a capacity for receiving, processing or transmitting information in the different sub states of a state FLA-machine token-entity model [5, 6,7]. Where, HOB stands for "Honey Bee of human thought and FLA stands for "Flower-board of Logic Array."
(8) A FTD access-code-function -- for locating itself and any sub S in S, and some other S's in the o-S.E;

is called a token FTD *intelligent* ***S Knowledge Based Object (S KBO)*** **token-**entity model. A FTD intelligent o-S KBO token-entity model may have some extra special type of properties in the o-S.E.

(d) An arbitrary abstract (or generalized) intelligent o-S KBO token-entity model generated under a unique name of x in the environment of o-S.E is called a distinguishable intelligent "o-x **KBO"**.

(e) A "FTD x KBO" is intelligent KBO in E. It may have a virtual or actual or both types of memories. That is each "FTD x KBO" has a virtual or actual or both types of memories in a given time in E.

(f) An intelligent FTD x KBO that it is supported by a transmitter in the flip state and a receiver in the flop state or vise verse; is called communicate able flip-flop FTD x KBO.

Definition 2 Let NS be a set of names constructed from a finite set of symbols like a given alphabet A. Where, NS is a non empty subset of A^*.

a) A set of

$$C = \{\text{FTD o-S KBO}, S \rightarrow x, x \in NS\}$$
$$= \{\text{FTD o-x KBO}, x \in NS\}$$
$$= \{\text{o-x: FTD KBO}, x \in NS\}$$
$$= \{x: \text{FTD KBO}, x \in NS\}$$

is called a FTD KBO cluster.

b) $\underline{C} = \{x: \text{FTD KBO}, x \in NS_1\}$ is called a memory-camouflaged FTD KBO cluster. Any member of $\underline{C}$ is called a memory-camouflaged FTD KBO.

c) An arbitrary FTD x KBO which has a power or capacity to be run under a FTD grammar (or contract, or protocol, or regulation) that does the followings:

(1) Generates a FTD y KBO, $y \in NS_2$, as a terminal y KBO (or y KBO token-entity) in its memory content;
(2) Lets FTD y KBO to practice its own activities for its own purpose--generating a new FTD z, $z \in NS_3$;
(3) Remembers what was taught formally to itself in the past;

(4) Reconstructs itself recursively as an updated FTD x KBO, in an abstract formal language HOB that generated by an abstract FTD formal grammar G in its life time, under a remote programming process;

is called a FTD **window womb KBO token-entity**.

d) A FTD window womb KBO token-entity in a FTD window womb token-entity model in a given "o" of an arbitrary FTD x KBO token-entity is called a token **FTD W@W KBO token-entity model**.

e) An arbitrary FTD x_i KBO token-entity, $x_i \in NS_i$, that it has an adaptable virtual description in an e-world knowledge environment E of a given internet I@I KBO is called an "e-FTD x_i KBO," $x_i \in NS_i$.

f) An e-FTD x KBO is sometimes represented by x: e-FTD KBO.

g) A picture x of the nature captured by an e-camera is also called an e-FTD x KBO.

Example 1

(a) Each collection-C of some living single natural cells with each has a collective memory "o" is a FTD C KBO token model.

(b) Each living single natural cell c with a memory "o" is a FTD c KBO. Where c is attached (or connected) to "o" by some nerves. That is "o-c."

(c) A mammal x or insect x with a camouflaged memory "o" is a FTD x KBO. A FTD KBO with a camouflaged memory "o" is a FTD x KBO.

(d) An e-FTD x KBO is a FTD x KBO that it is adaptable to an e-environment E.

(e) A person who knows how to use an internet I@I is an e-FTD person KBO. Here we assume that a person (man kind) has been adapted to the e-FTD environment E.

(f) A virus x is a FTD x KBO.

3. DEVELOPMENTS

In this section, some KBO root types will be introduced.

Definition 3Let us assume that @ is a communicational attraction operator. Let assume that a communicate able intelligent FTD x_i KBO, i ϵ [m] = {0, 1, 2, …, m-1} in the flip-state and a communicate able intelligent FTD y_j KBO, j ϵ [n] = {0, 1, 2, …, n-1} in the flop-state or vise-verse; are put together by a given technology for carrying out a communicational- instruction, is represented by (x_i @ y_j). It is called a one-to-one communication base. Where "(", or ")" is used to represent an antenna with a camouflaged memory "o." We know that the tamra-antenna"(" is in the flip-state and the ramta- antenna ")" is in the flop-state or vise verse implies that x_i and y_j can be in the two distinguishable states. We also know that while "$_p$(" is running as a transmitter, ")$_p$" runs as a receiver or vise verse under a broadband frequency p or wavelength 1/p. Under these conditions:

(a) A TASIM instructional structure of CB[0] = $_{p0}(x_i\ @y_j)_{p0}$ = $_0(x_i\ @y_j)_0$ **, is called one-to-one recognizable communicating-action controlling KBO body with frequency p = 0.**

(b) A TASIM instructional structure of **CB[1] = $_{p1}($ $_{p0}(x_i$ @ $^1y_j)_{p0}$ @ $^0y_j)_{p1}$ = $_1($ $_0(x_i$ @ $^0y_j)_0$ @ $^1y_j)_1$, is called one-to-two recognizable communicating action controlling KBO body with frequencies p0 = 0 and p1=1.** Where "$_{p0}($ $_{p1}(x_i$" KBO uses "$_{p0}$(" if it is communicating with "$^0y_j)_{p0}$" KBO and it uses "$_{p1}$(" if it is communicating with $^1y_j)_1$ **.** Observe that p0 = 0 and p1 = 1.

(c) A TASIM instructional structure of **CB[n] = $_{pn}($ … $_k$(… $_{p1}($ $_{p0}(x_i$ @ $^1y_j)_{p0}$ @ $^0y_j)_{p1}$ ... $)_k$ … $)_{pn}$ = $_n($ … $_k($ … $_1($ $_0(x_i$ @ $^1y_j)_0$ @ $^0y_j)_1$ ... $)_k$ … $)_n$ is called one-to-(n+1) recognizable communicating action controlling KBO body with frequencies p0, p1, …, p_k , …, and pn.** Where "$_{pn}($ …$_k$(… $_1($ $_0(x_i$" KBO uses "$_{pk}$(" if it is communicating with "$^0y_j)_{pk}$" KBO. Observe that pk = k, k ϵ [n+1] = [0, 1, 2, …, n}.

3.1 Root-Based KBO and Root KBO Types

Definition 3 A KBO acting as an abstract flip-flop FTD dancing FLAHOB chameleon token-entity KBO model that it behaves as a set of dancing FLA-cluster in the flip state (or FLA state), and it behaves as a set of dancing HOB-cluster in the flop state (or HOB-state) is called a flip-flop dancing FLAHOB-root. We interpret that a flip-flop dancing FLAHOB root has a capacity to produce:

(a) A dancing FLA-cluster in which each of its member labeled by a FLA[i], $i \in N$, in the flip-state for selling them on the HOB markets. Hence each flip-state is called a FLA marketing state;

(b) A dancing HOB-cluster in which each of its member labeled by a HOB[i], $i \in N$, in the HOB-state for selling them on the FLA markets. Hence, each flop-state is called a HOB marketing state.

A FLA or HOB-cluster has been generated for realizing an action of giver (or seller, or donor, or transmitter, or feeder, or broadcaster, or dropper, or emitter, or sender, or yielder, etc.) is called FLA or HOB market-marketing marketer identification.

A KBO that acts as a dances-dancing dancer for realizing an action of buyer (or recipient, or consumer, or customer, or purchaser, or client, or taker, or collector, or picker, or gatherer, etc.) is called a HOB identification holding token-entity.

A simple KBO with a FLA or HOB market-marketing marketer identification holder is called a token FLA or HOB root-base token-entity model. The simplest KBO with a FLA or HOB root-base identification holder is called a FLA or HOB root token-entity model. FLA or HOB root-base token-entity or FLA or HOB root token-entity model is a FLA or HOB.

(c) (i) A KBO with a simple token HOB entity identification holder is called a token HOB root-base token-entity model. (ii) The simplest KBO with a token HOB root-base entity

identification holder is called a HOB root token-entity model. (iv) A token HOB root-base token-entity model or a HOB root token-entity model is a HOB.

(d) (i) A KBO that acts as a FLA identification holding token-entity model in the FLA state and a token HOB identification holding token-entity model in the HOB state, is called a FLAHOB = (FLA, HOB) chameleon identification holding token-entity model. (ii) A simple KBO with a FLAHOB chameleon identification holding token-entity model is called a FLAHOB chameleon root-base token-entity model. (iii) The simplest KBO with a token FLAHOB chameleon identification holding token-entity model is called a FLAHOB chameleon root token-entity model. (iv) A FLAHOB chameleon root-base token-entity model or a HOB root token-entity model is a FLAHOB.

(e) A KBO root-base token-entity model is said to be a TOK quantifier. A KBO root token-entity model is said to be a TIK quantifier.

Theorem 1 There is at least one flip-flop FLAHOB chameleon root-base token-entity in the nature.

Proof (a) Each living single cell in a human body is a flip-flop FLAHOB chameleon root token-entity model. (b) Each single eggplant crop in an eggplant grow is a token FLAHOB chameleon root-base token-entity model. (c) A mammal or insect is a FLAHOB chameleon root token-entity model in a given environment E. (d) A cowherd is a token FLAHOB chameleon root-base token-entity model. (f) A PC is a FLAHOB chameleon root-base token-entity model. (g) An internet I@I KBO constructed by the world knowledge is a FLAHOB chameleon root-base token-entity model.

Definition 3 (a) An n-channeled flip-flop antenna sensitive to frequency x and named by $x \in [n] = \{0, 1, 2, \ldots, n-1\}$, is called a mod n flip-flop antenna. This type antenna will be represented by $_x($ or $)_x$. They operate in a pair. Where tamra $_x($ and ramta $)_x$ can communicate with each other. In the communication time tamra $_x($ acts as a transmitter in the FLIP state while ramta $)_x$ acts as a receiver in the FLOP state or vise versa.

(b) A KBO supported by a pair of mod n type flip-flop antenna is called an AKBOA = $_x(\text{ KBO@KBO})_x = {}_x(\text{ KBO})_x$, $x \in [n] = \{0, 1, 2, \ldots, n-1\}$.

(c) A FLAHOB supported by a mod n flip-flop antenna is called a AFLAHOBA = $_x$(FLAHOB@FLAHOB)$_x$ = $_x$(FLAHOB)$_x$, x ∈ [n] = {0, 1, 2, …., n-1}.

(d) A set of all AFLAHOBA = $_x$(FLAHOB@FLAHOB)$_x$ = $_x$(FLAHOB)$_x$, x ∈ [n] = {0, 1, 2, …., n-1} token-entities model generated in an environment E, is called a AFLAHOBA closure in E.

Theorem 2 Let G is a mod n AFLAHOBA closure in e given environment E. There is a mod n AFLAHOBA root-base token-entity in G that it acts as a state machine FLA marketing FLA market for HOB- assembly language spoken buyers in the flip state and a mod n HOB marketing HOB market for FLA state machine buyers in the flop state.

Proof Let G is a mod n AFLAHOBA closure in e given environment E. FLA = $_0$($_1$(… $_{n-1}$(x @ FLA[n-1])$_{n-1}$ … FLA[1])$_1$ @ FLA[0])$_0$ is a mod n AFLAHOBA root-base token-entity in G that it acts as a state machine FLA marketing FLA market for HOB- assembly language spoken buyers in the flip state.

Definition 5 Let G be a set of token flip-flop GENBIOM FLAHOB chameleons entity model objects that each object is controlled by an operating system O ∈ O^+ in an environment E^+, for a given life time T^+, such a way that each elements of G are organized under some regulations or rules of some formal grammars for carrying out a set of specific functions (or goals, or aims, or purposes) as a token G entity running under an active operating system O ∈ O^+ in E ∈ E^+, for a given life time T ≤ T^+; then G is called a token flip-flop **GENBIOM I@I** entity model cluster**.** A token flip-flop GENBIOM I@I entity model cluster is a GENBIOM.

Theorem 3 (A Fundamental Theorem) There is at least one token GENBIOM communicating mathematics entity model ‹I› in each arbitrarily chosen proper environment E that it describes any integrated token GENBIOM entity model G cluster in E.

Proof Let us assume that **I** is an us-Culture. See, Ünlü [10]. It has a capacity and power to generate a token GENBIOM communicating mathematics **‹I›** entity by furnishing

each element of ripe set **I** with a memory that it is linked to a pair of proper antennae, see Ünlü[12, 13], as following:

A) Let G be an arbitrary token flip-flop GENBIOM FLAHOB chameleon entity model at the i^{th} stage for practicing its FLA markets-marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given proper environment –E or +E or E.

(a) 1) Let "‹" be an information transmitting (or emitting) tamra-antenna, 2) "›" be an information receiving (or absorbing) ramta-antenna, 3) "‹ …›" be a pair of information transmitting tamra-antenna and information receiving ramta antenna.

(b) 1) Let "←" be a backward directed remote information loading (or injecting, or transforming, or implying) operator, 2) Let "→" be a forward directed remote information loading (or injecting, or transforming, or implying) operator, 3) Let "$\leftarrow^{-u}t\_$" or "$\leftarrow^{+s}t\_$" be a backward directed remote information loading (or injecting, or transforming, implying) operator by a given technology t in the stage –u or +s in "-E or +E or E." 4) Let "$\_\ ^{s}t\ \rightarrow$" or "$\_\ ^{s}t\ \rightarrow$" be a forward directed remote information loading (or injecting, or transforming, or implying) operator by a given technology t in the stage –u or +s in "-E or +E or E".

(c) 1) Let "$^{-u}$a" be a formal spike-value producible in the stage -u in -E. 2) Let "$^{-u}$ö" be a formal spike property producible in the stage -u for describing $^{-u}$a in -E. 3) Let "$^{-u}$K" be a procedure that formally and unambiguously decides whether or not $^{-u}$a satisfies $^{-u}$ö in -E. One can define a ripe set like it was introduced as in Ünlü[10], shortly by

$$\langle {}^{-u}A\rangle \leftarrow^{-u}t\_ \langle {}^{-u}a\rangle;\ \langle {}^{-u}a\rangle \text{ satisfies } \langle {}^{-u}\ddot{o}\rangle \text{ by } \langle {}^{-u}K\rangle \text{ for -u} \in \langle N\rangle\rangle \text{ in -E} \rightarrow$$

$$\langle {}^{-u}A\rangle = \{\langle {}^{-u}a\rangle: \langle {}^{-u}a\rangle \text{ satisfies } \langle {}^{-u}\ddot{o}\rangle \text{ by } \langle {}^{-u}K\rangle \text{ for -u} \in \langle N\rangle\} \text{ in -E.}$$

(d) 1) Let , for -m ∈ ‹-N›; ‹ $^{-m}$A› , ‹ $^{-m+1}$A› , …, ‹ $^{-i}$A›, …, ‹ $^{-0}$A› be the representations of m + 1 communicating ripe sets, in the m + 1 distinguishable stage -u, which all of them are not empty at the same time. 2) Let ‹ $^{-u}b_{-k}$›"$\leftarrow^{-u}t\_$ G

be a G loaded (or injected) ‹[-m; -0] $^{-u}$I› with communicating spike-values in -E. One can define a ripe set of G loaded (or injected) spikes like it was introduced as in Ünlü[10], shortly by

‹[-m; -0] $^{-u}$I› = { ‹ $^{-u}$I$_{-k}$› : ‹ $^{-u}$a$_{-k}$› ∈ ‹ $^{-u}$A› → ‹ I$_{-k}$›(‹ $^{-u}$a$_{-k}$›) ← $^{-u}$t_ ‹ $^{-u}$b$_{-k}$›;

-k = -m, -m+1, …, -0; -m ∈ ‹-N›}.

It is a **communicating negative u-crop** of some token flip-flop FLAHOB chameleon entity model KBO type G cluster for practicing their FLA markets-marketing marketers and HOB dances-dancing consumer's identities (or personalities) in a given environment –E**.**

(e) 1) Let "$^{+s}$a" be a formal spike-value producible in the stage +s in +E. 2) Let "$^{+s}$ö" be a formal spike property producible in the stage +s for describing $^{+s}$a in +E. 3) Let "$^{+s}$K" be a procedure that formally and unambiguously decides whether or not $^{+s}$a satisfies $^{+s}$ö. One can define a ripe set like it was introduced as in Ünlü[10], shortly by

‹ $^{+s}$A› ←$^{+s}$t_ ‹ $^{+s}$a›; ‹ $^{+s}$a› satisfies ‹ $^{+s}$ö› by ‹ $^{+s}$K› for +s ∈ ‹ N›› in +E →

‹ $^{+s}$A› = { ‹ $^{+s}$a›: ‹ $^{+s}$a› satisfies ‹ $^{+s}$ö› by ‹ $^{+s}$K› for +s ∈ ‹ N› } in +E.

(f) 1) Let , for n ∈ ‹ N›; ‹ $^{+0}$A› , ‹ $^{+1}$A› , …, ‹ $^{+i}$A›, …, ‹ $^{+n}$A› be the representations of n + 1 communicating ripe sets, in the n + 1 distinguishable stage +s, which all of them are not empty at the same time. 2) Let ‹ $^{+s}$b$_k$› ←$^{+s}$t_ G be a G loaded (or injected) communicating spike-value in +E. One can define a set of restricted communicating functions on ‹ $^{+i}$A›:

‹ $^{+s}$I [+0; +n] › = { ‹ $^{+s}$I$_{+k}$› : ‹ $^{+s}$a$_k$› ∈ ‹ $^{+s}$A› → ‹ $^{+s}$I$_{+k}$›(‹ $^{+s}$a$_k$›) ← ^{s}t_ ‹ ^{s}b$_k$›;

+k = +0, +1, …, +n ; n ∈ ‹ N›}.

It is **a communicating positive s-crop** of some token flip-flop FLAHOB chameleon entity model KBO type G cluster for practicing their FLA markets-marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given environment +E.

B) (a) Combining a **communicating negative u-crop** of some token flip-flop FLAHOB chameleon entity KBO type G cluster for practicing their FLA marketers-

marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given environment –E; and **a communicating positive s-crop** of some token flip-flop FLAHOB chameleon entity KBO type G cluster for practicing their FLA markets-marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given environment +E; under the union operator in the set theory, one can obtain:

$$\begin{aligned}
\langle {}^{-m}I^{+n}\rangle &= \langle [-m; -0]\ {}^{-u}I \rangle \cup \langle I^{+s}\ [+0; +n]\rangle \\
&= \langle [-m; -0]\ {}^{-u}I^{+s}\ [+0; +n]\rangle \\
&= \{\langle {}^{-u}I_{-k}\rangle : \langle {}^{-u}a_{-k}\rangle \in \langle {}^{-u}A\rangle \rightarrow \langle I_{-k}\rangle(\langle {}^{-u}a_{-k}\rangle) \leftarrow {}^{-u}t \langle {}^{-u}b_{-k}\rangle; \\
&\quad -k = -m, \ldots, -0; -m \in \langle - N\rangle\} \cup \{\langle {}^{+s}I_{+k}\rangle : \langle {}^{+s}a_{k}\rangle \in \langle {}^{+s}A\rangle \rightarrow \\
&\quad \langle I_{+k}\rangle(\langle {}^{+s}a_{k}\rangle) \leftarrow {}^{s}t \langle {}^{s}b_{+k}\rangle; +k = +0, \ldots, +n\ ;\ n \in \langle + N\rangle\}.
\end{aligned}$$

It is a **communicating (negative, positive) us-crop** of some token flip-flop FLAHOB chameleon G entity model KBO type clusters for practicing their FLA markets-marketing marketers identification holder (or personality) or HOB dances-dancing consumers identification holder (or personality) in a given environment –E or +E or E.

(b) Combining **communicating (negative, positive) us-crops** of some token flip-flop FLAHOB chameleon entity model KBO type G clusters for practicing their FLA markets-marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given environment –E or +E or E; under a cumulative union operator in the set theory, one can obtain:

$$\begin{aligned}
\langle I\rangle &= \{\langle {}^{-u}I^{+s}\rangle = \langle [-um; -0]\ {}^{-um}I^{+sn}\ [+0; +sn]\rangle : m, n \in \langle N\rangle \text{ and } -um \in \langle - N\rangle \text{ and } +sn \\
&\quad \in \langle +N\rangle\} \\
&= \{\langle I_{ki}\rangle = \{{}^{-ki}I^{+ki} : -um \leq ki \leq +sn\ ;\ m, n \in \langle N\rangle\},\ -um \in \langle - N\rangle \text{ and } +sn \in \langle +N\rangle\}.
\end{aligned}$$

It is a **communicating us-culture** of some token flip-flop FLAHOB chameleon G entity KBO type clusters for practicing their FLA markets-marketing marketers and HOB dances-dancing consumers identities (or personalities) in a given environment –E or +E or E. Hence, there is a token flip-flop GENBIOM FLAHOB chameleon communicating mathematics ‹I› entity model that it has capacity and ability to describe every token flip-flop GENBIOM FLAHOB chameleon entity model clusters while they are practicing their token FLA markets-marketing marketers entity model KBO type and token HOB dances-dancing

consumers entity model KBO identities (or personalities) in a given environment –E or +E or E. See Ünlü[10] some proper examples.

Example Resulting Corollaries: Let assume that G ← ‹I›. 1) There is a communicating finite stage token flip-flop GENBIOM FLAHOB I@I chameleon G entity model that realizes the recorded formal knowledge of man kind on the planet of Earth.

2) There is a communicating finite stage token flip-flop GENBIOM FLAHOB I@I chameleon G entity model that it realizes all stage-state machines has been produced on the planet of Earth.

3) There is a communicating finite stage-state token flip-flop GENBIOM FLAHOB I@I chameleon G entity model that it realizes the formally recorded, formal languages have been produced on the planet of Earth.

4) There is a communicating finite stage-state token flip-flop GENBIOM FLAHOB I@I chameleon G entity model that it formally realizes all formal grammars have been generated to produce the formal languages for utilizations on the planet of Earth.

5) There is a communicating finite state flip-flop token GENBIOM FLAHOB I@I chameleon G entity model that it realizes formally recorded science-models in different formal languages that man produced or will produce for utilization on the planet of Earth, etc.

CONCLUSIONS

1- Man is an intelligent token flip-flop GENBIOM FLAHOB chameleon entity model in the nature, as a part of the nature. The nature (the planet Earth) is also an intelligent token flip-flop GENBIOM FLAHOB chameleon entity model in the Solar System, etc. The common property in them is that each intelligent token flip-flop GENBIOM FLAHOB chameleon entity is trying to communicate with other intelligent token flip-flop GENBIOM FLAHOB chameleon entity model in order to be not lonely in its environment. Therefore each object is acting as marketing itself as FLA markets-marketing marketers' identification holder in a stage, or is acting as HOB dances-

dancing dancer consumer's identification holder in another stage, or is acting as a programmer to program other objects in some formal languages in its proper environment.

2- Every object in the nature was programmed to communicate with other intelligent objects in its proper environment. Hence, communication is an intelligent measure for intelligence. Formal communication is intelligently coded into wave motions by some formal languages that they are generated by some formal grammars. Hence, man has to know the notion of formal grammars for generating formal languages, and formal communication in the nature.

3- Mathematics is a universal formal language. Man kind has probably not understood it. For understanding it properly, a standard communicating mathematics has to be developed. Further a communicating cluster of communicating mathematics that each member has a capacity to communicate with others in the cluster and with standard mathematics, has to be developed.

4- Combining a cluster of objects as a token flip-flop GENBIOM chameleon entity model, and splitting a token flip-flop GENBIOM chameleon entity model into a cluster of token flip-flop GENBIOM chameleon model entities are two continuous processes in the nature. They do run against each other in each proper environment E for realizing stability in E.

5- There exist a (K, KBO, E-GENBIOM)-economy in the nature. It can be observed, studied and realized as a state machine in terms of FLA markets-marketing marketers and HOB dances-dancing consumers-chameleon K, KBO or GENBIOM. Where, 1) K stands for "Knowledge," 2) KBO stands for "Knowledge Based Object," and 3) GENBIOM stands for "environment dependent GENEtic, BIOnic, photonic, ionic, etc. Machine KBO model.

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