EFFECTIVE COMMUNICATION.
Development from the INSEED Project

Laura PANĂ
University Politehnica of Bucharest
lapana25@gmail.com

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SUMMARY (I)

1- 3
- What we have to communicate?
- Communication as a kind of action
- Internal structure of communication

4 - 6
- Values of communication as action.
- Common and professional communication
- The common factor of cognition and communication

7 - 9
- Cognitive competence and communication performance
- Cognition and communication techniques
- Stages and levels of intellectual automation

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SUMMARY (II)

10- 12
- Automated intellectual techniques
- Reality fields generated by/for intellectual work
- Virtual intellectual reality

13 -15
- Personal, interpersonal and team effectiveness
- Features of an effective communication process
- Principles, criteria and degrees of efficacy

16 - 18
- Models of effective communication
- An integrative model of effective communication
- Characteristics and facilities offered by the model

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What we are communicating?

Information

Ideas

Motivation

Projects

Values
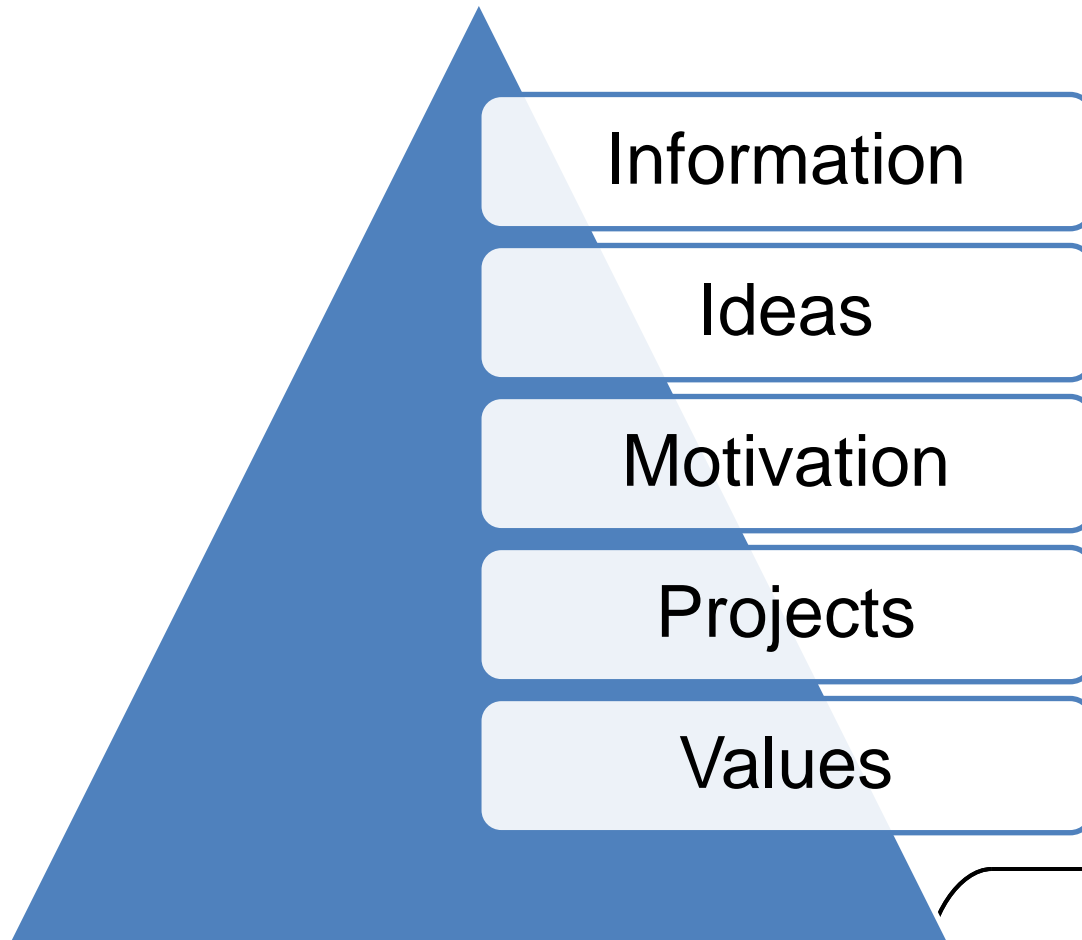
What kind of information?

Structural information

- World as a message
- Information as the internal organization and stable structure of systems
- We are speaking about the world, about our own representations and theories

Functional information

- Characterizes any evolving and developing natural or social system
- The chain of evolution is self- and strong determined, but closed or partially opened
- We express desires, goals and projects

Free information

- Spontaneously /intentionally generated in society
- Self-generation of ideas, automated information discovery, processing, transmission, storage & using
- New content and product generation by free/directed association of ideas: creation and co-creation
- We have to transmit/to build a culture

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COMMUNICATION AS A KIND OF ACTION

Communication and its role in a system:

a function
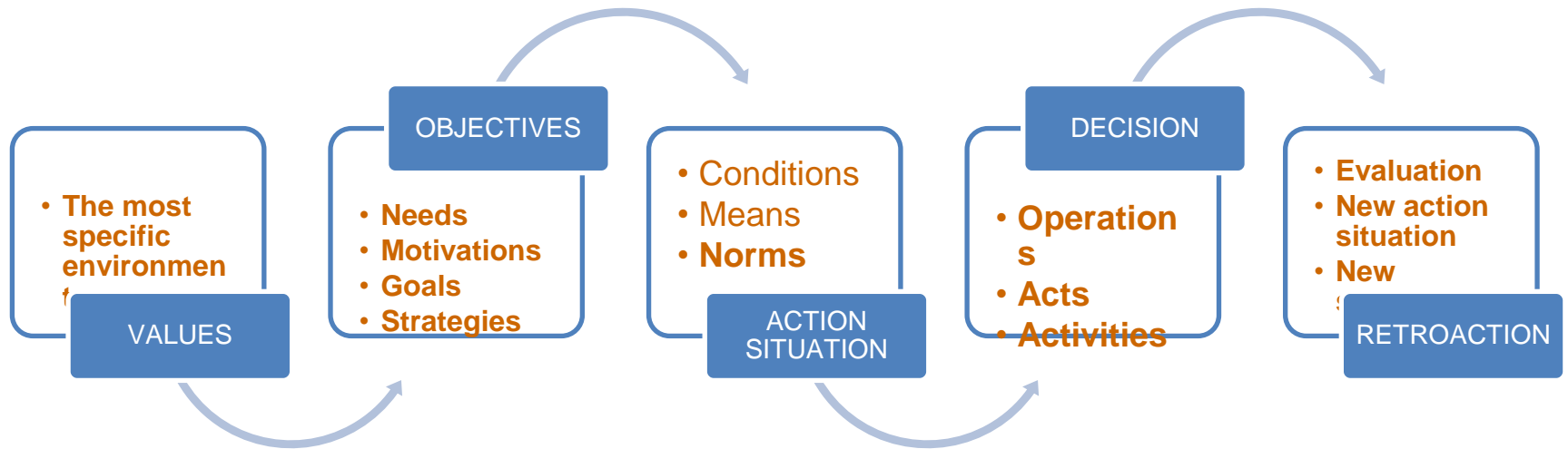
a process

an activity

an inter-action

a change induced in the world?

INTERNAL STRUCTURE OF COMMUNICATION

VALUES
- The most specific environmen

OBJECTIVES
- Needs
- Motivations
- Goals
- Strategies

ACTION SITUATION
- Conditions
- Means
- **Norms**

DECISION
- Operations
- Acts
- Activities

RETROACTION
- Evaluation
- New action situation
- New

VALUES OF COMMUNICATION AS ACTION

EFFECTIVENESS

The main functions of communication are accomplished by a specific process with a high accuracy degree : a motivation system is built and a communication technology is used within an activity accomplished by another person or group, charged with responsibilities in a field of activity.

EFFICIENCY

A communication process is efficient if it determine an agent to act and when the result of the realized action or activity is that projected by the initiator and realized in by a collaborative team, group or community.

Efficacy

Is obtained when a system that can be natural, technical and artificial, accomplishes the task for which it was conceived, projected or produced. The effect may be obtained without any initiative and effort of the system and the agents may be human, artificial or mixed.

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COMMON AND PROFESSIONAL COMMUNICATION
- a genetic explanation-based comparison -

I. Communication as a dimension of action.
II. Communication as an instrument for action.
III. Communication as a goal of action.
IV. Communication as a profession.

Professional activities developed around of communication:

Psychology and Sociology of Communication,

Communication Management.

Professional communication may be described by its objectives, means and consequences.

Objectives of unspecialized/professional communication : 12/4

Effectiveness of professional communication may be evaluated by real changes induced in human behavior and environment.

Communication Management and I. as technique of techniques Motivation Management, Career M., Virtual Management, Strategic M., Social management, Crisis Management, Change Management, Invention Management, Future Management

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- Cognition techniques and communication skills -

Knowledge discovery, acquisition, storage and transfer

- Knowledge representation, structuring & processing;
- Knowledge classification, ready to be used keeping, and dissemination;
- Complete and efficient use of the totality of social knowledge
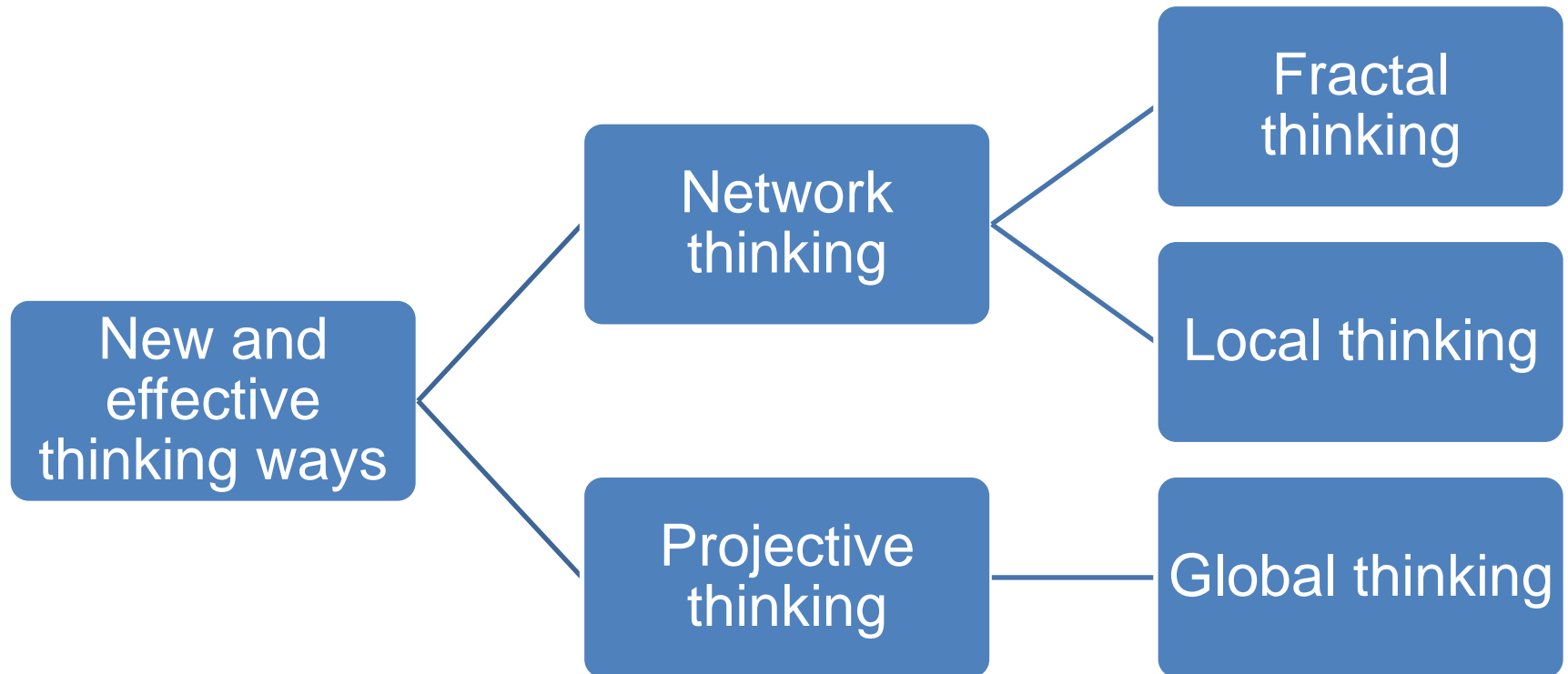
Knowledge sharing and distribution, cognitive permeability and competence building

Individual and Social Cognition Competence

- Knowledge work; collaborative new knowledge generation;
- Knowledge-based information activities, systems and technologies;
- Knowledge flows, nets, centers, islands, regions and continents;
- Knowledge trade on virtual knowledge markets

The common factor of cognition and communication
COLLABORATIVE THINKING

New and effective thinking ways

Network thinking

Fractal thinking

Local thinking

Projective thinking

Global thinking

COGNITION AND COMMUNICATION TECHNIQUES

The role of intellectual techniques

- **INFORMING TECHNIQUES**
  - **- Lecture assisted by computer;**
  - **- Hypertext as a reading and writing technique, which supposes other techniques;**
- **KNOWLEDGE DISCOVERY TECHNIQUES**
  - **- knowledge extracting techniques from the web**
  - **- co-constructed narratives in scientific problems solving;**
- **FORMATIVE TECHNIQUES**
  - ❖ **- knowledge transfer techniques**
  - ❖ **- format change & storage media;**
  - ❖ **translation techniques: computer assisted, automatic, author assisted translation;**
- ❑ **LEARNING TECHNIQUES**
  - ➢ **intelligent tutoring systems;**
  - ➢ **knowledge-based, intelligent and flexible e-learning systems.**
- **KNOWLWDGE MANAGEMENT TECHNIQUES**
- **INTELLECTUAL AND TECHNOLOGICAL INVENTION INTEGRATED ENVIRONMENTS**

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DATAMATION, INTELLIMATION, EUREMATION, SOCIOMATION
present and future INTELLECTUAL AUTOMATION stages and levels

I. DATAMATION

- calculating, symbolizing, computing

 (Old stoic school, Al Horezmī, Lullus, Pascal, Leibniz, Kircher, Babbage)

- formalization, axiomatization, modeling; conceptual models inventing and applying

II. INTELLIMATION

- Intellectual Automation: intellectual techniques conceivig and using

- forms of knowledge (even artificial), virtual experiments, artificial discovery
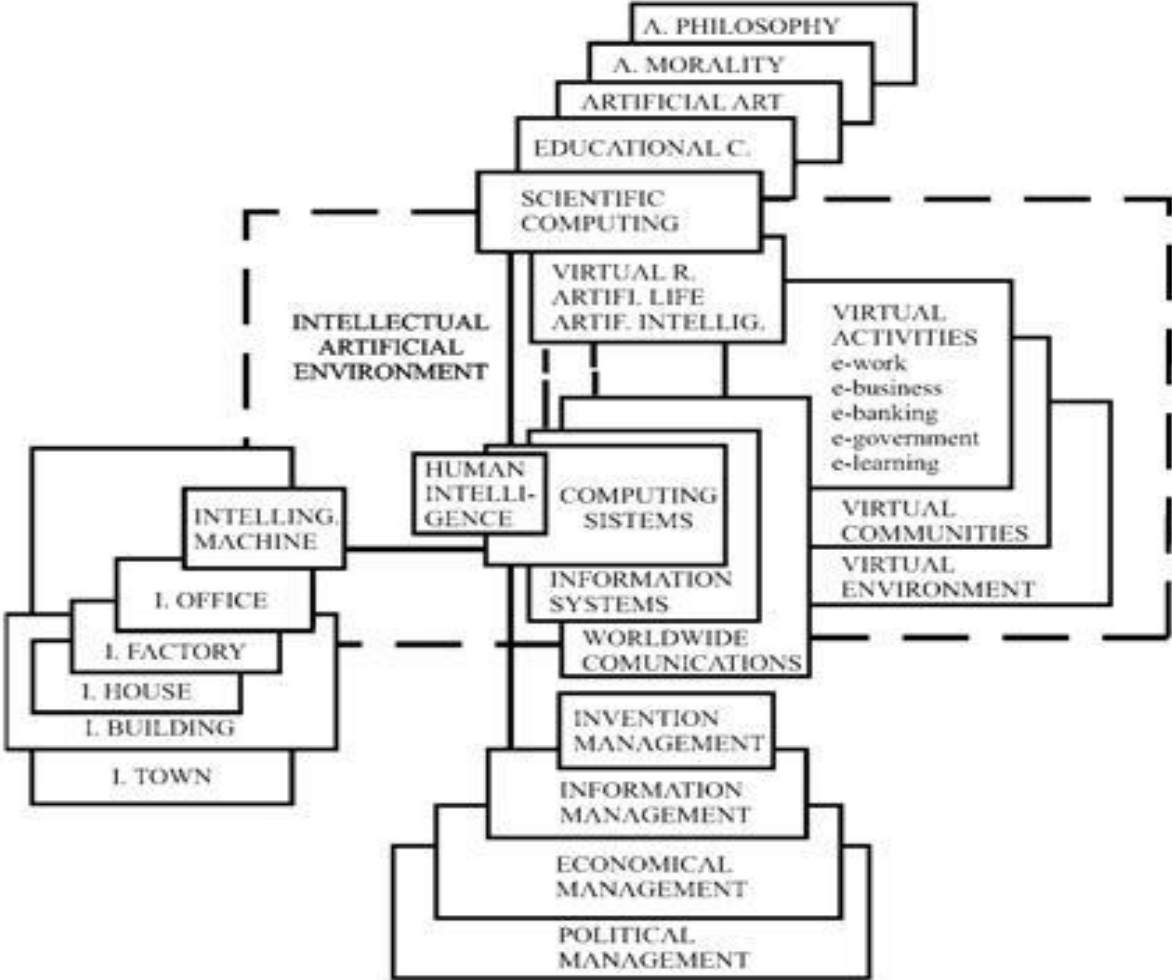
III. EUREMATION

- Heuristics (from Euclid's commentators to Descartes and Odobleja

- Three creation levels: theory, method and practice

IV. PRAGMATION

- Automatic   TOOLS from Divine Devices to Robotic Entities

- Automatic SYSTEMS from Computing, Creating and Living ones

- Automated THEORETIC, METHODIC and PRACTICAL ACTIVITIES

V. SOCIOMATION

FEATURES OF AN EFFECTIVE COMMUNICATION PROCESS
Linguistic competencies, leading aptitudes and career management

- A correct and then efficient communication process is pending on linguistic abilities of coding and de-coding messages as well as on the structure/dynamics of discourse.

- The medium length of an efficient message transmitted in public context is that of about 15 words.

- Another condition: coherence between the mental states and behavioral status of a communicator who wants to be trusted and followed. The capacity to establish and maintain this correlation is inner or cultivated and complete the linguistic behavior.

- An adequate connection between the content of message and the beliefs of speaker is needed, because we are transmitting partly opinions, convictions and attitudes.

- Important properties of the transmitted message regards its content itself:

- ❖ the used terms have to be short, simple and poly-semantic in order be decoded, understood and assimilated by different and large categories of public;

- ❖ concepts of equality, equity, independence, justice, freedom, property etc. have a universal and positive meaning that may facilitate adhesion and even enthusiasm;

- ❖ such kind of notions are bases of individual mental constructions by which the attended discourse is continued and valuated in accord with personal interests.

- The discourses of public personalities were short, pertinent, eloquent and mobilizing in the ascendant period of carrier and long, pedant, confusing or hesitative and wearisome in the decreasing phase of their public activity.

PERSONAL, INTERPERSONAL AND TEAM EFFECTIVENESS IN COMMUNICATION

Personal effectiveness

Interpersonal effectiveness

Team effectiveness

PERSONAL EFFICACY IN COMMUNICATION

CONDITIONS AND FACTORS OF PERSONAL EFFICACY IN THE FIELD:

➢ **well substantiated, cognition-based and self-confidence characterized message;**

➢ **complete motivation system;**

➢ **goal's presence and psychological orientation to achievement;**

➢ **strong beliefs, which help us to get free of indecision; negative beliefs are decreasing motivation, when those positive strengthen them;**

➢ **continuity between motivation and decision; a strong motivation sustains an easier decision process, when a weak motivation makes decision harder;**

➢ **powerful connection between personal & group motivation and decision: decision empowers motivation when the lack of decision diminishes motivation; the absence of decision grows the negative motivation, but decision making may inhibit motivation;**

➢ **feedback waiting and giving;**

➢ **strong confidence in success facilitates an effective communication process.**

Effectiveness is positively influenced by self-effectiveness measurement; specific self-effectiveness studies were made in activity fields such as health, education and culture

INTRA- AND INTERERPERSONAL COMMUNICATION

Psychology of Interpersonal Behavior outlines some specific requirements:

✏ **Assertiveness - the capability to persuade and to lead persons as well as groups** ✏ **Supporting attitude** ✏ **Intense nonverbal communication** ✏ **Verbal interaction as the main vehicle of social communication** ✏ **Empathy and cooperation in hard situations understanding and solving** ✏ **Cognition of the very nature of social problems** ✏ **Both correct & creative interpretation/observation of norms and rules** ✏ **Active listening, that suppose:** ★ **questioning** ★ **analogical thinking and equivalent ideas searching** ★ **new topics finding** ★ **less evaluative, error tolerating attitude** ★ **provoking but feed-back giving, even enthusiastic attitude** ★ **resuming & anticipating** ✏ **Efficient self-presentation** ✏ **Capacity to admit/promote diversity** ✏ **Availability to accept change, to initiate and to manage changes.**

Changes of interpersonal communication in artificial and virtual environments .
Communication in virtual work groups and communities.

Interpersonal effectiveness is obtained by personal and social skills &competences management, by managing the dynamics of social relations and conducts produced by inter-personal and group relations, and by human and social changes generating.

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PRINCIPLES, CRITERIA AND DEGREES OF EFFICIENCY

- **EEfficiency is not univocally dependent on the level of complexity & degree of organization: all forms and levels of being and action can be efficient at the highest level.**
- **The best order is that enabling permanent change and complete reorganization.**
- **Deep order & maximum level of complexity can also be major impediments of efficacy.**
- **Effectiveness criteria have also to be proved as effective; criteria of social change/development may be:**
  1. **the number of possible directions/variants of evolution/development**
  2. **the balance between**
     ① **structure/activity**
     ② **stability/development**
     ③ **hard/soft**
     ④ **input/output**
  3. **possibility / availability of system for internal changes.**
- **Levels of manageability and complexity are not necessarily correlated; the most ungovernable are the simple but huge systems: not the size & number of components, but the variability, randomness, interaction, speed and the sense of evolutions are important.**
- **Society: the most organized and the least controlled system, because of the „artificial" character of social organization: numerous new but superficial/exterior structures are invented; they are often reciprocally incommoding, while necessary social structures are in a rapid de-structuring process; super-structured forms of organization and multi-organizations are promoted.**
- **Problem solving is centralized, worldwide distributed; global problems are superposed on local ones.**

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PRINCIPLES OF COMMUNICATION AS ACTION

Sets of principles in action

Principles of communication as

Substantiating principles of

**Directed evolution and development
Synergy in nature, society, thinking
Systemic & collaborative thinking**

Operational principles in

◎**goals definition** ◎**priorities setting**
◎**terms appointing** ◎**space & time management**

Change operating principles:

Reflexive planning; Resources & cost evaluation; Competencies defining, Responsabilities establishing; Unique situations, risky effects forecasting; Flexible strategies; Models simulating, Rewards allowing as control means, Continuity of change ensuring

A necessary, even unavoidable activity   Process with inter-related components Correlates act/react as complex universes

Communication is continuous, circular. A chain of motives, arguments, rhetoric   procedures and psychological effects. Communication is irreversible. Communication has several dimensions. Communication types are generated by function, relation, context …

Communication is a sum of factors, harmonized or opposed: a message may have multiple significations, may simultaneously express different attitudes). Linguistic competence is a crucial factor. Communication is a symmetrical and complementary relationship. High efficacy strategies.

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FACTORS, CONDITIONS AND BENEFIC EFFECTS OF COMMUNICATION

Factors of efficacy

- Personal aptitudes, group features
- Cognitive competence
- Value-founded motivation system
- Values computing
- Motivation management
- Right evaluation of goals/results
- High self-and group expectation
- Language-technique of techniques
- Language engineering
- Connecting free persons, societies
- Circular process, 360° feed-back
- Actual signification of change

Conditions of efficacy

- Mental states and processes
- Self- and group conscience
- Consciousness engineering
- Strong pers./social identity
- Practical thinking/reasoning
- Psychological, intellectual & social techniques
- Instrumental, institutional, cultural, virtual techniques
- Environment-oriented, personal, group & social support

Benefic changes

- Stimulates creation & co-creation of new knowledge
- Professional performance & social development
- Person, society and community-oriented interest, motivation and action
- Increases personal, group and social coherense
- Social dynamics by change
- Personal, professional, social satisfaction/ happiness
- Low personal & social anxiety
- High self/social esteem
- Forward looking

EFFICACY DEGREES (I)

- From lack of efficacy, low efficiency and pseudo-efficacy an activity may be accelerated to counter-effectiveness or even toward too high effectiveness

- Human efficacy, in its technical expression, is around of 50%, while nature is working further on at more than 90% efficacy.

- The difference is now "recovered" by accidental or intentional, but totally destructive influences over other persons or over the surrounding environment.

- A comparable efficacy may be attained by humans on the positive half of a success scale: they are able of unique performances, without specific /superior education and high-tech facilities, only by inspiration, hard work, co-operation.

- Compared with its own possibilities, human action has a middle performance level, which is a social achievement, but in particular cases, when objectives are realized with the expected results, we are counting them as successes.

- The important social actions are those which generate novelty and which open multiple and permanent perspectives for development: are changes.

- Change also means unknown & incertitude: efficacy is, as at the start of history, at risk/random/inspiration of individuals & groups charged with responsibility.
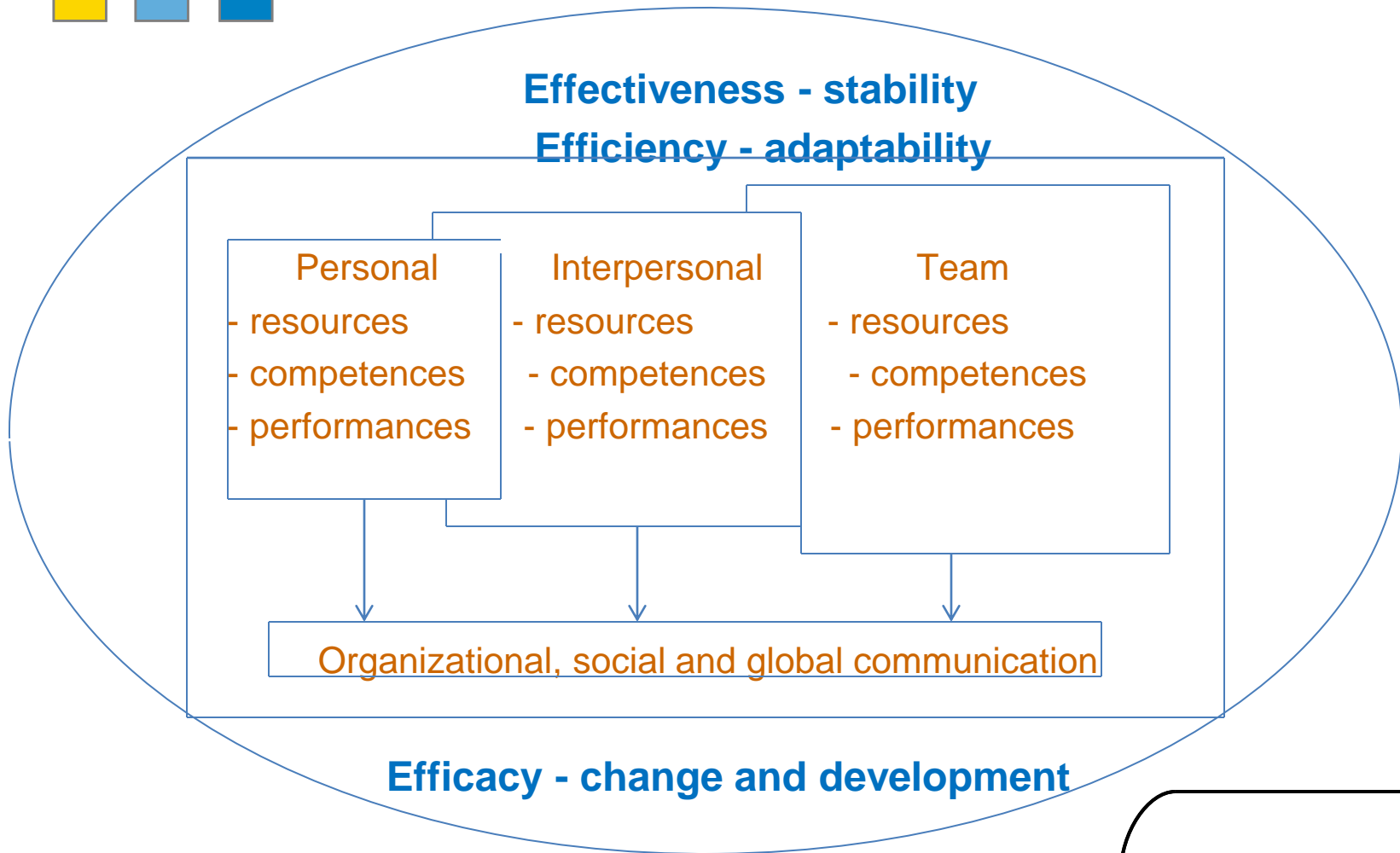
EFFICACY DEGREES (II)
- a multi-criterial approach-

Object of activity	Source/type of evolution	Products	Consume size	Environment	Eficiency	Stability	Future
Natural entities	Innovation	Compatibile with nature	Scanty	Explored	Optimal	Perenity	Workshop
Pre-fabricated	Invention	Nat. & artif.	Rational	Exploited	40 - 50%	Conditioned	Laboratory
Artifacts	Automated	Materials	Huge	Endangered	→ 60%	Incertitude	Closed
Data	Virtualized	Mat. & Virt.	< 200 %	Ecocid	→ 400%	Instability	Crucible
Ideas	Heuristics	Models	30%	Conceptual Possible	100%	Risc	Open
Change	Strategy	Simulation	100%	Extended: at.&Artif.	Process	Balanced	Predictable

AN INTEGRATIVE MODEL OF EFFECTIVE COMMUNICATION

Effectiveness - stability

Efficiency - adaptability

Personal	Interpersonal	Team
- resources	- resources	- resources
- competences	- competences	- competences
- performances	- performances	- performances

Organizational, social and global communication

Efficacy - change and development

EFFICACY CONDITIONS FOUNDED BY THE MODEL

- **Conserves, extends and integrates various descriptions of communication effectiveness types and degrees, combines the internal and external resources of communication management;**
- **Selects and represents the distinctive features of the analyzed effectiveness types (self-efficacy, personal, interpersonal, team and social efficacy);**
- **Shows the successive integration of the studied effectiveness types in a more and more complex whole in which they function as premises and then as conditions for the next ones;**
- **Outlines the interdependence between all the presented communicational effectiveness types.**
- **May describe but equally inspire professional communication efficacy increasing by using psychological, psychosocial, persuasive , organizational, socio-technical and prospective visions, methods and techniques.**

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