

INFORMATIONAL METABOLISM OF THE IT SOCIETY

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Received: 31.03.2020 Accepted: 15.04.2020

Abstract

This article presents a study and analysis of the distribution of Socionics personality types in the IT community, covering different IT professionals from 6 countries. The integral psycho-informational metabolism of the IT society has been determined and proved by a socionic analysis of the statistical data, using different practices and tools. The conclusions drawn define the main peculiarities of the IT guild as well as the specific motivational, communication and value characteristics of the study group. The factors that differentiate IT people from the rest of the population are also analyzed. The illustrated methodology is applicable to studies of the behavioral characteristics of different communities, subcultures, social and minority groups, as well as various corporate units with integral informational metabolism.

The author assumes that the reader is familiar with the fundamentals, terminology and concepts of Socionics as well as Jungian theory.

Keywords: IT-management, Socionics, informational metabolism, psycho-analysis, psychotype, Myers-Briggs Type Indicator

JEL Codes: A12, A14, L20, L29, M15, M59, Z13

Introduction

Formed as a theory of personality types and relationships between them, the Socionics continues to develop rapidly during the new 21st century, as an interdisciplinary science, covering fields such as transpersonal psychology, social psychology, ethno-psychology and social anthropology.

Socionic analysis, along with the theory of Integral Socionics (Bukalov, 1998, 2009), is a powerful tool for exploring the psycho-information peculiarities of different systems and subsystems in society (nations, ethnicities, states, communities, subcultures, as well as social, religious and ethnic minority groups).

The factors of integration in each community are based on common values, properties and characteristics, and therefore are directly related to the integral informational metabolism.

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An interesting example of a characteristic subculture is the IT society, which is considered strange and incomprehensible by the rest part of humanity. In course of this article, the reasons for the intellectual and communication separatism of this community will be explored, as well as the different features and factors that set it apart from the social standards.

Social, literary and movies stereotypes for computer professionals, describe the ITs as poorly dressed and bespectacled people with communication problems. The clichés describe these folks as introverted and asocial who have strange and unpopular activities, passion for science fiction, comics, computer games and others. They are often unfriendly and arrogant, and when communicating with the opposite sex are inept and shy. The archetypal IT guy is poorly dressed, overweight/underweight, living in front of a computer screen, eating pizza and other junk food. The music IT-preferences are related to Heavy metal, Punk rock, Gothic rock or Classical music.

Regardless of whether the literary characters are positive or negative, they are highly intelligent (evil genius) with extremely non-standard and abstract thinking. They are characterized by a hatred of the status quo and social restrictions, often bordering on anarchism.

From a professional point of view, the key qualities required in information technology are related to structural logic, system architecture, various classifications, abstract thinking, ideas, concepts, prognostics, algorithm, problem solving, troubleshooting, innovations, thinking out of the box.

According to the Socionic outlook, the characteristics listed above correspond to the cognitive functions (information aspects) of introverted logic (□) and extroverted intuition (▲). The IT-community belongs to *Alpha* psycho-informational space, characterized by a democratic relationships, intense information exchange, disregard for the existing paradigms, intolerance to moral and moral constraints, curiosity to the new and unknown, theoretical and inventive activity, construction of logical structures, generation of original ideas and theories and others.

Considering the pronounced introverted nature of the IT community, the generally accepted stereotypical ideas about it and the required professional qualities in the IT industry, we can conclude that the integral informational metabolism of this sub-society corresponds to the type of INTJ whose informational - aspect model is described below (Gulenko, Molodsov,1991):

INTJ A-model

□ ₁	▲ ₂
● ₄	⌒ ₃
○ ₆	■ ₅
■ ₇	△ ₈

□ **Introverted Thinking - Program function**

They can reasonably and convincingly express their thoughts. They prefer compact, concise information, though inclined to extend it within acceptable limits. Well appreciate the capabilities of systems, formal models and concepts, clearly separating the essence from the insignificant.

▲ **Extroverted Intuition - Creative Function**

Able to generate ideas. Their thinking is extremely independent. Delving into the issues, they offer innovative solutions. Able to solve complex and unclear problems. The lack of facts compensates with imagination.

⌒ **Introverted Feeling - Role function**

Uncommunicative, difficult to build relationships with others. It is hard for them to be friendly and polite. They are indifferent to external criticism and are not afraid of negative attitude.

● **Extraverted Sensing - Painful function**

They strive for simple and democratic relationships. They are soft in nature and have no breakthrough power. They are in dire need of independence and privacy. Ignore violence and pressure, and therefore can't be forced to do something.

○ **Introverted Sensing - Activation function**

Humble in life, satisfied of minimal amenities. When household and material problems are solved, their energy rises - they move to tasks postponed for "better times". When they feel discomfort for long period, they begin to accumulate negative emotions.

■ **Extraverted Feeling - Suggestive function**

Positive emotions relax and soothe them. They respond by becoming sociable and witty. In a close circle they are cheerful and welcoming. They show their own emotions only in a friendly company but usually are cold and distant.

△ Introverted Intuition - demonstrative function

At meetings and events they are always on time. They pride themselves on their accuracy and organization. They can be counted on to complete the tasks on time. They don't like wasting time hence they look for methods for time saving.

■ Extraverted Thinking - Observation function

They appreciate the prospects for new endeavors. They are not business-minded or entrepreneurial, but can recommend an unusually bold and successful solution. They select a personal approach based on accepted practices.

Below is the data supporting the hypothesis regarding the type of informational metabolism of the IT community. The data is from a survey conducted by the author. The surveyed group comprises of system administrators, hackers, DB administrators and software developers, and includes 80 IT professionals from 6 countries - Bulgaria, Serbia, Montenegro, Sweden, Denmark and USA.

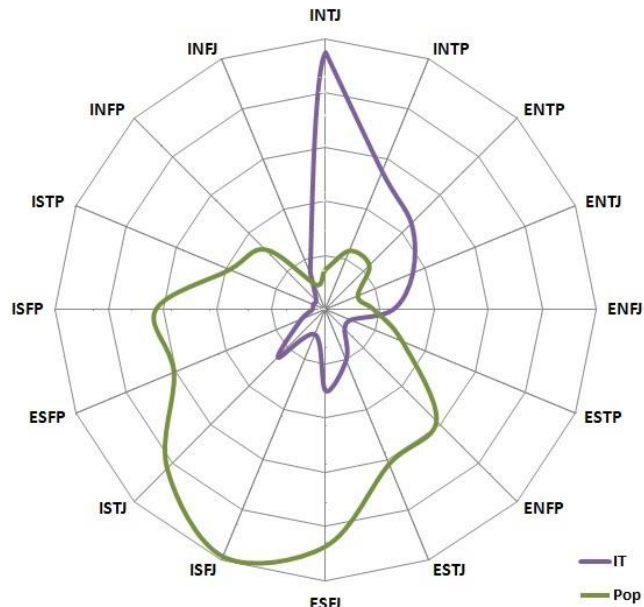
The research methodology includes a set of tools: test, interviews and ethnographic methods (observations in work and informal environment), which enables the typing of participants much more accurate than using a separate method.

The results of the study are presented in Table 1, together with the distribution of the population types (according to Statistic Brain Research Institute). Figure 1 presents graphically the data.

Table 1

Type	Pop. %	IT %
INTJ	2,10	23,75
INTP	3,30	13,75
ENTP	3,20	11,25
ENTJ	1,80	8,75
ENFJ	2,50	6,25
ESTP	4,30	2,50
ENFP	8,10	2,50
ESTJ	8,60	5,00
ESFJ	12,20	7,50
ISFJ	13,80	2,50
ISTJ	11,60	6,25
ESFP	8,50	2,50
ISFP	8,80	1,25
ISTP	5,40	1,25
INFP	4,40	1,25
INFJ	1,40	3,75

Figure 1



The results show a significant deviation of the IT psycho-informational profile relative to the percentage distribution of psychotypes in the population. Rare types with a frequency of 2-3% are significantly concentrated in the IT community.

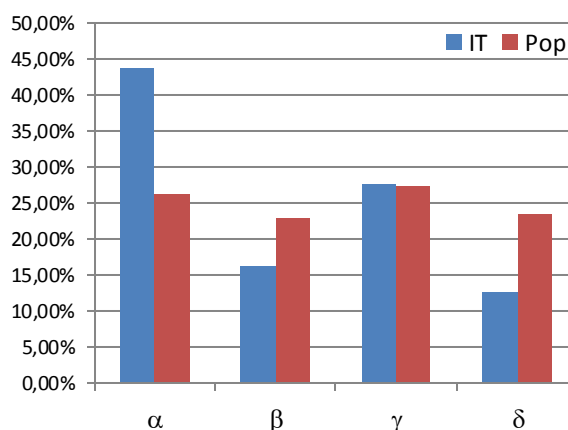
A deeper understanding of the nature of this disproportion can be achieved through “small groups” analysis.

Table 2 presents the data for quadra-distribution of IT specialists from the surveyed sample, along with the standard population distribution. Figure 2 presents this data graphically.

Table 2

Quadra	IT Community%	Population%
α	43,75	26,30
β	16,25	22,80
γ	27,50	27,40
δ	12,50	23,50

Figure 2



The analysis of the quadra composition shows that a significant part of IT specialists (43.75%) belong to α -quadra, which explains their non-standard thinking, tendency to create innovations, lack of prejudice, developed sense of justice, democratic relations, free sharing of information (especially in the open-source communities). In this sub-society the expressed intolerance to rules, restrictions, traditions and paradigms, exist. Here exists a cult of freedom of the spirit, continuous search for the absolute truth and yearning for new horizons of human knowledge.

The democratic character of the community is complemented by representatives of the γ -quadra (27.50%), who also do not tolerate restrictions, have a good appreciation of

prospects and trends, value individualism and independence, and value others on the basis of their personal qualities.

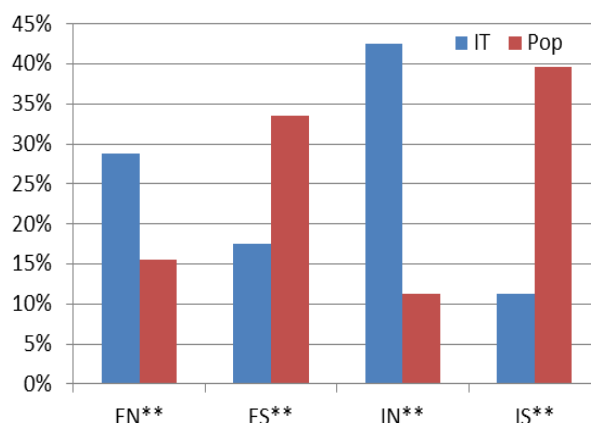
The analysis of the statistical data is divided into Gulenko-Udalova (Gulenko, 1995, 2009; Udalova, 2007) groups, which contributes to deeper understanding of the genesis of psycho-informational metabolism of the explored community, and the factors that have the most significant influence in its formation.

The distribution by motivation groups in the IT community also differs significantly from the standard distribution in the population. This segmentation of the data is illustrated by Table 3 and Figure 3.

Table 3

Motivation	IT Community%	Population%
EN**	28,75%	15,60%
ES**	17,50%	33,60%
IN**	42,50%	11,20%
IS**	11,25%	39,60%

Figure 3



The leading motivational factors in the IT community are "Self-sufficiency" (IN**) and "Uniqueness" (EN**), accounting over 70% of the stimuluses in the statistical sample.

The carriers of the basic motivational incentive "Self-sufficiency" (IN**) - appreciate the opportunity to indulge in what they consider to be significant. The inner world of ideas is at the top of their value system and adding value to it is the factor that drives them to a particular activity. Their incentives are personal curiosity, interest in the subject or the method and positive subjective evaluation of the task. Representatives of these types are characterized by modesty and unpretentiousness.

The second important motivating factor in the IT community is "Uniqueness" (EN**). In the value system of these psychotypes, the leading motivation is predetermined by qualities such as unusualness, perspective of the task, intellectual complexity and fascination. The pursuit of "non-standard" creates problems for these sociotypes and they are often perceived as weirdos or outsiders in society, regardless of their social status.

"Prestige" (ES**) and "Wealth" (IS**) incentives, which represent significant motivation among the population (> 63%), have considerably less influence on motivation in the IT community (29%). Social status, successful career, influence and power, attention and respect, financial security, confidence in tomorrow, order and comfortable living and working conditions do not represent much worth in the IT value system.

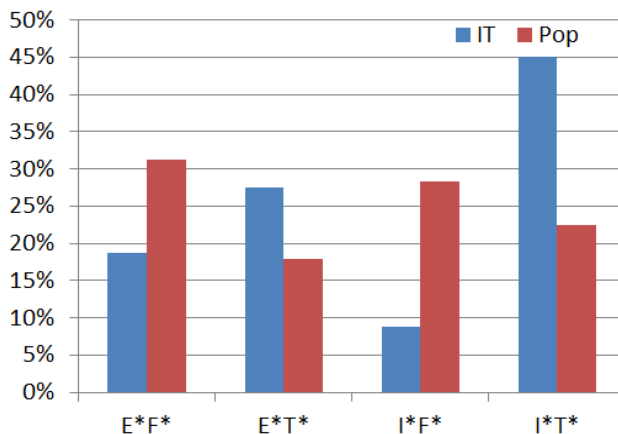
Particularly characteristic of the IT community is its communication specifics.

In corporate life, employees from other departments often complain about the uncommunicativeness and un-socialness of ITs and compare them to machines and robots. Most of the people find that IT guys cannot have a normal, human (non-engaging) conversation. ITs are cold, pragmatic, preferring written communication over business meetings (which are considered a waste of time). The reasons for these peculiarities can be illustrated by the statistics on communication styles of the studied community, presented in Table 4 and Figure 4.

Table 4

Communication	IT Community%	Population%
E*F*	18,75%	31,30%
E*T*	27,50%	17,90%
I*F*	8,75%	28,40%
I*T*	45,00%	22,40%

Figure 4



The most common communication styles in the IT community are "cool-blooded" (I*T*) and "business" (E*T*), totaling over 70% of the sample surveyed. The emotional communication attributed to the feeling types (E*F*) and (I*F*) is not characteristic of the representatives of the studied community.

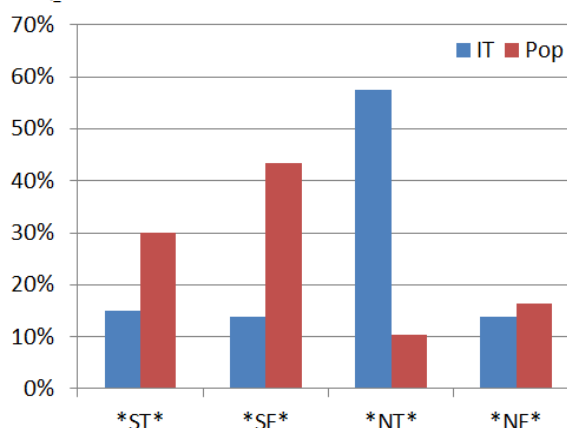
In full accordance with social stereotypes, most of the ITs are reserved and non-communicative. The communication in this guild is used to exchange missing information and passing it on in accordance with established standards and schemes. The position of communication excludes emotional character and is based mainly on operational needs. Written exchange of information is often preferred and perceived as more reliable.

Club affiliation of ITs is particularly characteristic. Of all the segregations of the statistics data, the most significant deviation from the standard population distribution is observed here:

Table 5

Club	IT Community%	Population%
ST	15,00%	29,90%
SF	13,75%	43,30%
NT	57,50%	10,40%
NF	13,75%	16,40%

Figure 5



About 60% of the surveyed IT professionals belong to the Researchers club (*NT*), compared to about 10% of the general population.

Therefore in club distribution, there is a significant concentration of “rare elements” in the IT community.

More specifically here exist curiosity for solving unsolved problems and structuring solutions in exact laws. "Researchers" are gifted with holistic view of their problems of interest, an accurate and clear view of the causal relationships and structures of the world around us, a constant search for the objective truth achieved through the means of reason. Moreover, the creation of interconnections, systems and classifications is a completely natural process for the *NT* temperament. The representatives of this group are attracted by the unknown and the unusual, by the general principles, but not by the practical and applied values of their activities. The discussions at this club are extremely open and democratic. "Researchers" value a person for their intelligence, which is why they do not respect hierarchy, regalia and authority. For these people, continuous challenge of laws, orders and rules, is more than usual behavior.

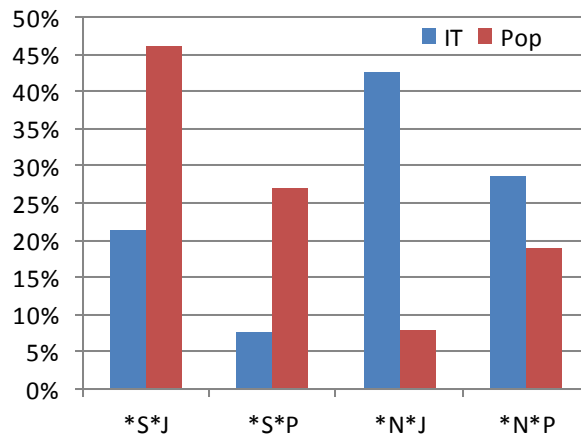
This club unites scientists, inventors, discoverers and innovators. Regardless of their particular profession, original methods, non-standard solutions and creative approaches are present in their work. Here the idea and content are valued more than the practicality and the form.

Another characteristic of the IT community is the life strategies, the data for which is presented in Table 6 and graphically presented in Figure 6.

Table 6

Strategy	IT Community%	Population%
*S*J	21,25%	46,20%
*S*P	7,50%	27,00%
*N*J	42,50%	7,80%
*N*P	28,75%	19,00%

Figure 6



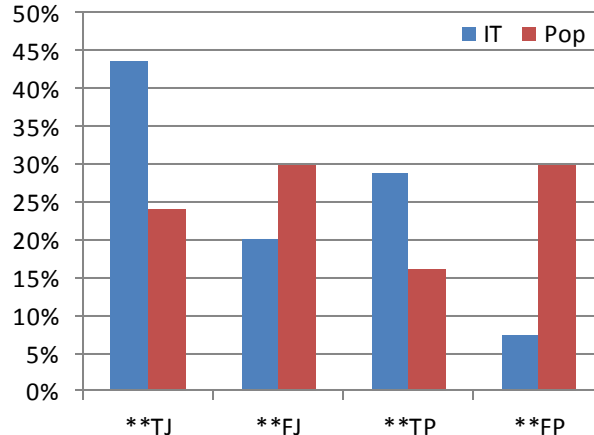
In the IT community, dominant strategies are formed mainly by the judging and perceiving intuitus (*N*J) and (*N*P), who in total exceed 70% of the explored group. This is why the IT guild is distinguished by idealism on the one hand and flexibility on the other. The focus is on avoiding possible ways that require compromise with the views and the values of the community. Strategy (*N*J) is the bearer of the inductive component of the IT society and has a leading role in creating structures and defining laws, whereas (*N*P) is the bearer of the deductive component and a catalyst for creating innovation, demand on unfamiliar roads and new opportunities. Thus, the mix that is obtained, leads to the stability of ideals on the one hand and the flexibility of methods on the other.

The distribution of life missions describing the ideological foundations, the "right direction" and the idea of a decent life position are presented in Table 7 and Figure 7.

Table 7

Mission	IT Community%	Population%
**TJ	43,75%	24,10%
**FJ	20,00%	29,90%
**TP	28,75%	16,20%
**FP	7,50%	29,80%

Figure 7



The IT community is dominated by two life missions - Traditionalists (**TJ) and Experimenters (**TP).

Traditionalists are prone to persistent and accurate activities based on time-tested and proved recipes. Their worldview is based on respect for science and established concepts. They are critical of the new methods and rules and only adopt them after repeated reviews. They are cautious about reforms and resist if they see a risk to an

already established and working system. That mission is based on minimizing the risk and the chance of failure.

Experimenters are distinguished by their continuous, analytical search for new methods and concepts, unpaved paths, ingenuity, criticality to paradigms, etc. These types are learning and discovering new laws and technologies with interest, not allowing established methods and instructions to impede their creativity. They find satisfaction especially in solving the most complex tasks and cases.

These two missions have a significant impact on the professional work of the IT community and can cause some inconsistency of the quality of the end product. Tasks can be performed with perfect quality, as well as neglected due to the presence of more interesting projects.

Also, the existence of two distinct strategic cores is the main reason for internal community conflicts and conflicts regarding the applied methods.

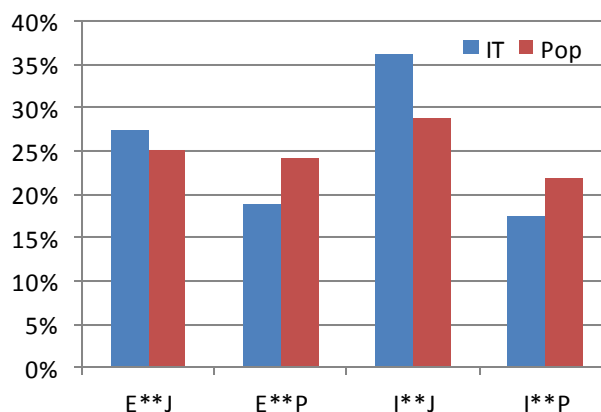
On the other hand, given the other features of IT society (democratic expression of ideas, constructive dialogue, striving for non-standard and original thinking, etc.), no real conflict is expected. Innovations are applied on a consensual basis, but only when they sustain criticism of rational arguments and prove their applicability and lack of risks for the working systems.

The statistics on emotional intelligence types of the IT community, compared to the population are presented in Table 8 and Figure 8.

Table 8

Em. Intelligence	IT Community%	Population%
E**J	27,50%	25,10%
E**P	18,75%	24,10%
I**J	36,25%	28,90%
I**P	17,50%	21,90%

Figure 8



Emotional intelligence in the IT community is dominated by balanced (I**J) types (36%). They are characterized by emotional distance and constant working capacity, which are slightly dependent on external factors. These people are confined and restrained. They have good self-control over their own emotions. They are moderate and consistent in their wishes and actions. They avoid interference in other's affairs and overreact to interference in their affairs.

The analysis by dichotomies of the studied community compared to population distribution is shown in Table 8 and visualized in Figure 8.

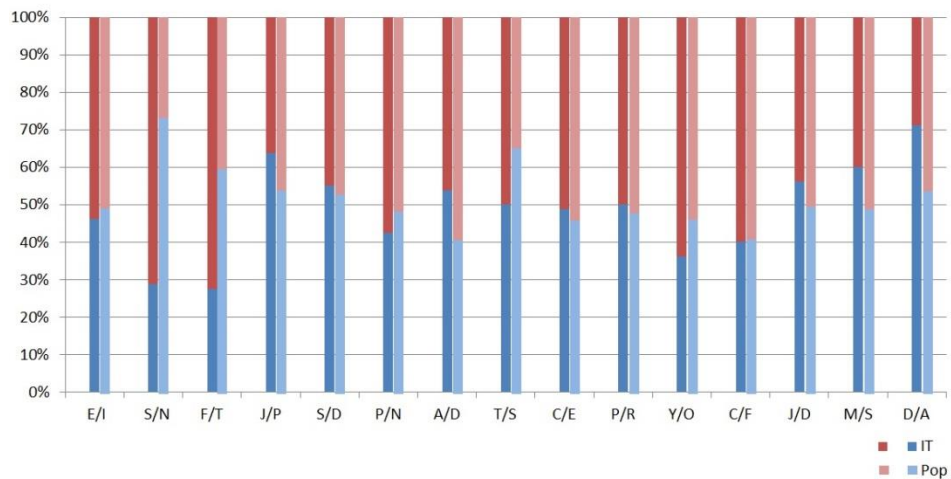
Table 8

%	E	I	S	N	F	T	J	P	S	D
IT	46,25%	53,75%	28,75%	71,25%	27,50%	72,50%	63,75%	36,25%	55,00%	45,00%
Pop.	49,20%	50,80%	73,20%	26,80%	59,70%	40,30%	54,00%	46,00%	53,00%	47,00%

%	P	N	A	D	T	S	C	E	P	R
IT	42,50%	57,50%	53,75%	46,25%	50,00%	50,00%	48,75%	51,25%	50,00%	50,00%
Pop.	48,50%	51,50%	40,75%	59,25%	65,20%	34,80%	46,10%	53,90%	47,90%	52,10%

%	Y	O	C	F	J	D	M	S	D	A
IT	36,25%	63,75%	40,00%	60,00%	56,25%	43,75%	60,00%	40,00%	71,25%	28,75%
Pop.	46,30%	53,70%	41,10%	58,90%	49,80%	50,20%	49,10%	50,90%	53,70%	46,30%

Figure 8



The results show the most significant deviation of the IT community by the Jungian dichotomies S/N and F/T.

Intuitive types are known to perceive the overall picture better than its details. Receiving sensory information, they transform it into abstractions, dependencies and

regularities. The facts are going on the background and the focus of the intuitive perception is oriented toward the significance of those facts.

Thinking personality types make decisions based on objective criteria. They are analytical, logical, consistent and impartial in their assessments. They strive for clarity and fairness in the criteria for decision making.

From the analysis made, it can be concluded that in the formation of the integral informational metabolism of the studied group, leading role is played by Jungian and group traits.

The differentiation of the explored set is not considerably pronounced on basis of Rainin traits (Rainin, 2010) and the distribution is comparable to that in the population for the most of dichotomies:

Static/Dynamic,
Positivist/Negativist,
Asking/Declaring,
Tactical/Strategic,
Constructivist/Emotivist,
Process/Result,
Yielding/Obstinate,
Carefree/Farsighted.
Judicious/Decisive,
Merry/ Serious,
Democracy/Aristocracy

The most significant difference compared to the general population is observed with the Democracy/Aristocracy trait. Indeed, in the IT community, status and titles are not particularly relevant. The assessment of others is based on their personal qualities and mainly on their knowledge and competencies, not on their caste, social group or professional guild membership.

The results of the analysis describe in detail the characteristics of the studied community and prove compliance of the integral informational metabolism to type INTJ. It should be noted that in addition to the stable nucleus, there are certain concentrated impurities that "paint" the collective character. These conglomerates of types have a significant influence on the collective psycho picture and their consideration contributes to a more detailed and in-depth understanding of integral psychoinformational groups.

If the 16 psychotypes are the notes of the Socion, then the small groups are corresponding to different chords with specific sound. The stronger the presence of each of them in the integral group, the more pronounced is its influence in the overall harmony.

Respectively, the term "integral personality" (*iSelf*) can be formulated, which is described by "impurities" creating the unique character of each integral group and define the differences between two communities with the same type informational metabolism. Moreover, terms such as "the team spirit", "the company spirit", "the national spirit", etc. would be fulfilled with substantially more specific semantic content.

It should be noted that integral IT informational metabolism is not a static structure and has some dynamics.

Old-school hackers and system administrators are predominantly of the INTP and INTJ types, while extroverted types are prevalent among the new generation (under 35). This trend is probably due to the dynamics of business environment and the changing demands for IT-industry globally.

On one hand, the mature companies are more focused on soft skills, whereby communication skills are gaining in importance over technical skills.

On the other hand, there is a demystification of information technology in the new millennium, and more "humanitarian" types targeting this profession. The reasons are diverse and include rapid development of informational technologies, accessibility of information, the prestige of the IT industry, attractive remuneration, as well as various educational policies designed to meet the shortage of IT professionals in the industry. As a result, information technologies are beginning to attract "uncharacteristic" (other than *NT*) types with different motivational factors such as well-being and prestige.

Also, the exacerbated competition requires increasing business flexibility, rapid responses and changes of corporate strategies, innovative solutions and revolutionary products.

All this can lead to a recent change of the IT integral type from INTJ to its mirror type - ENTP.

INTJ → ENTP

□▲ → ▲□

Such a transformation would keep in significant degree the psycho-informational exchange of the IT community, but would change the focus from the *impanse* (internal development) of theoretical activity to the expanse of ideas potential. As a result, we will see an increase in the number of developments, many bold and original solutions, new methods, etc. Unfortunately, increased flexibility and variety of methods will be at the expense of the quality of realization and the degree of completion of ideas.

New developments will follow the ideas and will not be based on the existing technological methods. This will lead to significant dynamics in the IT sector and an abundance of new products and services, which will intensify the competition between companies.

Such kind of trend is already observed and the competitive advantages in IT business are related to rapid reaction and flexibility too. The IT world is beginning to reorient itself to Agile methodologies that rely on factors such as: customer satisfaction, close collaboration, direct communication, delegation of responsibilities, high staff motivation, facilitation of processes, self-organizing teams, rapid adaptation to circumstances and others.

An interesting feature of these methods is the work of sprints - a natural approach for the perceiving psycho-types.

Another example of flexible behavior is the SCRUM methodology, which assumes that the specifications and requirements of each project are subject of change due to

inaccuracies in the original assignment or changes made by the client. Therefore the focus of this approach is on the ability of IT teams to respond to sudden and unexpected changes.

CONCLUSIONS

1) All features of the IT community can be extracted from its integral TIM (type of informational metabolism). Differential analysis (small group distribution) gives a very good idea about the nature of the group psyche, as well as the processes in an integral community.

2) The integral TIM is a dynamic category, which unlike the individual TIM, can be influenced and altered by various factors and processes.

3) In the dynamics of the IT society there is a certain tendency for "humanization" of the industry, which will lead to a transformation of the integral IT-TIM from INTJ to ENTP.

4) The group psyche contains sub-structures (conglomerates of psychotypes) that cause differences between two integral communities with the same TIM and are attributes of the integral Self (*iSelf*).

5) Most significant influence on formation of the integral IT-TIM have affiliation to Quadra (alpha) and Club (*NT*).

6) There is significant differentiation in the IT community on Jungian dichotomies N/S and F/T, while the traits of Rainin show little deviation with the population and can be treated as secondary factors in the formation of integral IT-TIM.

SUMMARY

The IT community has a unique character, predetermined by its integral psycho-informational metabolism. This society is characterized by a democratic attitude, a lack of prejudice, a free exchange of ideas and an intolerance of restrictions on the free spirit.

The most characteristic features of this guild are related to the interest in the non-standard and the unusual, solving puzzles, searching for original and unpaved roads. The IT community lives in a world of abstract ideas and precise logical structures. Therefore, creating, innovating, solving problems and defining exact laws are all natural processes for this guild. This is due to a holistic view on the problems of interest and an accurate picture of the causal relationships and structures in the inner and outer world. Intellectual challenges, non-standard ideas, original methods, creative solutions, innovative approaches and democratic discussions are the basic values in the IT society.

The main motivation of these people is related to personal curiosity, unusualness, the perception of the task, intellectual complexity and fascination. They do not respect the hierarchy, titles and regalia, and at the same time are distinguished by modesty and unpretentiousness.

The IT professionals do not tolerate constraints. They value perspectives and trends, individualism and independence, and evaluate the others based on their personal qualities.

The communication peculiarities of the representatives of the IT society are extremely specific. These people are cold, businesslike, reserved and unsociable. They prefer the written form of communication, considering it more reliable. Hereby, the exchange of information does not lose its quality, as it is dictated entirely by business needs and the filling of the gaps.

Emotional communication styles are not typical for the representatives of the studied community. These people have significant control over their emotions and do not allow external factors to affect their productivity and mood. They are private, restrained, moderate and consistent. They avoid interference in the other's affairs and react sharply to interference in their affairs.

The life strategy of the IT community is related to stability of ideals on one hand and flexibility of methods on the other. There is significant firmness in the views and values of the community, which is not contrary to the passion for creating and innovation, seeking unknown paths and new opportunities, as well as creating different structures and defining new laws.

Although the IT Guild's worldview is based on respect for science and established concepts, all existing paradigms are criticized in the search for new methods. IT professionals do not allow established methods and instructions to impede their creativity.

Forceful methods are inappropriate for managing IT teams. The teams must be convinced that what they are doing is right and above all, meets their intellectual standards. In order to follow a particular idea, they must be attached to it and feel involved in the process. Therefore, IT management should take into account the peculiarities of the psycho-informational profile of the IT departments and their differences with the TIMs of the others organizational units.

Having the psycho informational profile and composition of an integral system, we can deduce its properties and characteristics, as well as to predict its behavior, development and dynamics under certain conditions.

The integral approach in the study of the group informational metabolism allows, knowing the properties of a community, to identify the integral TIM. Differential approach allows, by examining the composition of the community, to derive its specific properties, key characteristics and attributes that determine the uniqueness of the community within whole society.

The illustrated methodology is applicable to studies of the behavioral characteristics of different communities, subcultures, social and minority groups, as well as various corporate units with integral informational metabolism.

REFERENCES

- Augustinavichute A. (1995) Informational Metabolism Model, *Socionics, mentology and personality psychology*. K., №1
- Augustinavichute A. (1996) Human Dualistic Nature, *Socionics, mentology and personality psychology*. K., №1–3
- Augustinavichute A. (1997) Theory of Intertype Relations, *Socionics, mentology and personality psychology*. K., № 1-5
- Augustinavichute A. (2003). Comment to Jungian Typology and Introduction to Informational Metabolism, *Psychology and Socionics of interpersonal relationship*, K., № 1, 26–33
- Augustinavichute A. (2008) Socionics, M: Chernaya Belka, (Russian)
- Bukalov A.V. (1998) Integrated Types of Collectives, Nations, States. Ethnosocionics. *Socionics, mentology and personality psychology*. K., №5, pp. 34-45.
- Bukalov A.V. (2009) The Basic Principles of Integral Socionics. *Psychology and Socionics of interpersonal relationships*, K., №10, pp. 46-51.
- Bukalov A.V. (2016) Ethnopsychology and ethnosocionics, *The origin of language and culture: the ancient history of humankind*, K., Vol. 3, № 1, 25–29
- Ermak V. (2009) Classical Socionics. The system concept of the theory of informational metabolism of the psyche, M: Chernaya Belka (Russian)
- Gulenko V. (1995) Management of harmonious team. Socionics and socioanalysis for managers, N: RIPEL. (Russian)
- Gulenko V. (2009) Humanitarian Socionics, M: Chernaya Belka, (Russian)
- Gulenko V., Molodsov A. (1991) Introduction to Socionics, K:VZUUP (Russian)
- Jung K. (2005) Psychological Types, S: University Press "St. Kliment Ohridski" (Bulgarian)
- Kenarov D. (2019) *Entrepreneurship*, Volume: VII, Issue: 1, pp. 75-83
- Reinin G. (2010) Secrets of the type. Models. Groups. Signs. M: Chernaya Belka, (Russian)
- Udalova E., (2007) Socionics in HR or What does the MBTI, M: Agentstvo Socion (Russian)
- Statistic Brain Research Institute (www.statisticbrain.com)