

ASSOCIATIVE CONCEPTUAL CONSTANT OF SUBCONCEPTS E-SPACE AND CYBERSPACE

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Summary

The article presents the part of results of a mixed free and directed associative experiment for the study of nominations of concepts E-ПРОСТІР (E-SPACE) and КІБЕРПРОСТІР (CYBERSPACE) of the conceptual field “простір (space)” in the online mode. The purpose of the associative experiment is to confirm or refute the hypothesis that E-SPACE and CYBERSPACE are identical subconcepts of CF «простір». The article presents the reasons for choosing an associative experiment and the methodology of the experiment. The material of the research was 86 questionnaires of Ukrainian-, English- and Russian-speaking respondents who are carriers or mediators of the Ukrainian conceptual picture of the world and 955 reactions were collected. On the basis of free and directed answers, the respondents' reactions to the E-ПРОСТІР and КІБЕРПРОСТІР stimulus, the nominative field of two concepts was singled out, and 7 microfields of the E-ПРОСТІР verbalization and 6 microfields of the КІБЕРПРОСТІР nomination were singled out. The top list of tokens of verbalizations of the concepts is presented in the article. The common conceptual constant based on the associative field of both concepts, and the status of subconcepts of the conceptual field «простір» was confirmed.

Keywords: information, reactions, tokens-representatives, conceptual field, picture of the world, logosphere, language personality, top-list.

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1. Introduction

In recent decades, new cells, sizes, and environments in the space have appeared that change the way we think about space. Outer space, the Internet, virtual reality are abstract dimensions limited only by human perception. Personal experience of spatial relations is changing and needs to be restored. Information, as a physical and philosophical concept, a measure of the heterogeneity of the distribution of matter and energy in space and time, a measure of change that accompanies all processes occurring in the world (*Glushkov, 1986*) is a key agent of change in spatial experience. “*Forget Space-Time: Information May Create the Cosmos*”: information is both a mean and a fixer of change in the world (*Kuhn, 2015*), just as language is. Physicists use numbers to describe space, and programmers use the same numbers as language to create and actualize it.

The philosophical category of space for division and cognition of the world has undergone conceptual changes. Human used to structure space through information about his location, and now, as a continuation of himself, human has placed information about himself in a container – electronic space. Various nominations have become established in the language of speakers: electronic space (S. Sassen, K. Robins, M. Hepworth, etc.), cyberspace (W. Gibson, S.B. Barnes, M. Benedikt, etc.). The question arises: what is the difference between these two cells of space? Whether they are two concepts that have something in common with SPACE or not and what is the difference between them we want to define with the help of verbalizations of these concepts. Thus, the relevance of the study is in the need to establish conceptual boundaries, common ideas about new concepts, to establish their cognitive relationship to the category of space represented in language in the form of the concept “SPACE” and the conceptual field around it.

2. Literature review

Space exists where we know about it. The rest has not been proven. Thus, as K. Popper said, the fact that we have not seen a black swan does not mean that it does not exist, and by claiming that it does not exist, we contradict the existence of those swans that are recorded (*Popper, 1959: 111, 378, 404*). However, we will not be able to describe the black swan until we see it (empirical experience). Therefore, that hypothetical space beyond the planets we have reached and described is a hypothetical space. Therefore, the emergence of information space is caused by the desire to capture the space under human control.

Our *hypothesis* is that in the national Ukrainian logosphere of being, E-space is identical to cyberspace. To prove that, we firstly studied previous linguistics researches. As Frege said in his theory of language sign: “*The regular connexion between a sign, its sense, and its reference is of such a kind that to the sign there corresponds a definite sense and to that in turn a definite reference, while to a given reference (an object) there does not belong only a single sign*” (*Frege, 1952: 24*). We aim to find in the concepts E-ПРОСТІР and КІБЕРПРОСТІР the invariable essence, the common meaning of two different signs, a *conceptual constant* that we define as 1) as a common unshakable semantic base of the concept which remains in the variation of the names of the concept within one linguistic picture of the world; 2) the point of cultures contact, common denotation, fixed representation, the meaning of the concept common to the same concept within different linguistic pictures of the world, which is expressed in language by a token or tokens and reproduced in other comparable linguistic pictures of the world.

All the variety of verbalizations of the concepts of E-ПРОСТІР and КІБЕРПРОСТІР will help us to establish such a constant. Reactions to e-space and cyberspace are embodied in the form of language, ie verbalized reactions, emotions, have the opportunity to establish the experience of the speaker in relation to the studied phenomena. Such reactions “*are caused by the previous experience and due to them, one idea that appears in the mind causes new ideas on the basis of similarity, contiguity or opposite*” (*Klimkova, 1991: 45*) and are called *associations*. Telia considers three types of associations: national-cultural, which are inherent in the bearers of a certain ethnolinguistic culture; general cultural, which are universal for speakers of different languages; and individual-authorial, or subjective (*Telia, 1986: 91*). As part of the study of CF “space” by exploring all the possible types of the associations around the sub-concept of E-ПРОСТІР, КІБЕРПРОСТІР, we will be able to establish a separate associative field inside the CF “space”. An associative field (associative group) is a set of words associated in a person's mind with a word (*Bilodid, 1980: 298*).

The study of the connection between language and digitalization (*Makhachashvili, Semenist 2020: 196*), about the role of associations in concept shaping (*Vorobyova, 2013; Prikhodko, 2013*) and in concept dynamics (*Dzyubenko, 2013; Surmach, 2012*) were conducted before. The study of the connection between the concept, digitalization and associative linguistic experiment study is poorly presented in linguistic research (*Klyuyev, 2020; Agagyulova, 2012*) and need further deep development.

Based on the ethnolinguistic relativity “Humboldt – Sepir – Wharf”, we consider the two-way process of language influence on man and man on language. Knowing the language, a person owns its conceptual picture of the world (CPoW). It extends the angle of view to the objects of reality. “*The reverse effect of language is all the more definite because through it everything created by peoples in the past affects the individual*” (*Humboldt, 1985*). Hence the idea that if a language has a cultural specificity, then mastering the language includes mastering CPoW of a particular culture. Thus, the mediators of such CPoW are not only the native speakers (in the traditional sense, those for whom the language is native), but also those representatives of other cultures who speak and understand another language. A person in the language aspect is considered as a language personality and has a three-level structure of language acquisition: verbal level, the level of the picture of the world and the level of communicative needs (*Karaulov, 2010*). If we take native speakers, they are fluent in the language and have all three levels, while those who know the language, although not traditional speakers, but are able to operate with words and concepts that are hidden behind them and thus act as mediators of the linguistic picture of the world (LPoW) and CPoW hidden behind it. “*Verbalized knowledge is represented by concepts – operational units of the conceptual picture of the world. Those concepts that are connected by verbal codes represent operative units of the linguistic picture of the world and form “internal vocabulary” as objectified knowledge in language*” (*Drach, Mykolenko, Tyshkovet, 2019*). The inner lexicon is a reservoir for concepts (*Bila, 2020: 7*). Thus, associations, as an internal lexicon of personality, are an example of that objectified knowledge in the language of CPoW.

Thus, the CPoW mediator – we define the person who obtains the language as an instrument of the LPoW, which in its activities is the subject implementation of the CPoW. Thus, we took into account the results of the survey not only of native Ukrainian speakers. Within the CF there are units of intercultural logosphere “space” – a set of all language units from all the LPoW in the world, all the world models (*Makhachashvili, Semenist 2020:196*), which is conditionally verbalization of abstract and empirical elements of the category of space.

Thus, the **purpose** of the study is to establish the common semantics of the subconcepts E-ПРОСТІР and КІБЕРПРОСТІР with which they entered the conceptual field «простір» due to the expansion of information space.

3. Methodology

To reach the aim, we will use *the method of psycholinguistic associative experiment* that is explained by the specific of the object of study. “*Human mind is a close system and one cannot observe its processes directly. Hence linguistics has to neglect the main methods of studying such as observation and introspection and to apply experimental techniques*” (*Vasianovych, 2020: 110*).

The technique of associative-semantic experiment is often used to study the associative field of concepts. It makes it possible to identify a set of paradigmatically and syntagmatically

related verbal representatives of concepts in the text, as well as a system of associations generated by them (Surmach, 2012).

When studying the conceptual field of «іпоctip» and identifying the real modern picture of its structure we employ a mix of two of three types of associative experiment suggested by Glukhov. It is a free associative experiment (Glukhov, 2005) aimed at establishing new tokens in the conceptual field. A purposeful experiment (Glukhov, 2005), on the other hand, can establish tokens that are traditionally associated with the concept but are already obsolete or obsolete, and on the contrary confirm the relevance of other already known ones. Thus, a mixed associative experiment should allow for a complete associative description of the word stimulus, which may be the concept itself. The stimuli for the reactions were given in the written form, presented to the respondents by the Google Form questionnaire online.

The **material** of the research is the answers of the respondents left in the questionnaire submitted in the electronic online form in Google Forms. 105 questionnaires were collected: 56 questionnaires in Ukrainian, 30 questionnaires were collected in Russian, 13 questionnaires in English and 6 in French.

We believe that in the context of internationalization, globalization and widespread use of foreign language vocabulary, associations of respondents may arise in different languages. Also, we do not rule out the possibility of bilingual respondent that is typical for Ukraine. Thus, we identified three groups of keepers of CPoW as respondents of the questionnaire based on the obtained data: 1) Respondents whose answers were in Ukrainian (speakers of CPoW); 2) Respondents who chose Ukrainian as their native language, but whose answers were in a foreign language (speakers of CPoW); 3) Respondents who indicated Ukrainian as a language they spoke but answered in a foreign language (CPoW mediators). As a result, 86 questionnaires out of 105 were studied.

Socio-cultural background of reactions was identified by the first 4 questions in the questionnaire. Age of participants: 86 respondents voluntarily participated in the survey aged 15 to 51 years. Gender of participants: 82.56% of respondents were women, and 17.44% were men, or 15 men and 71 women. Mother tongue: for 21 respondents Russian is their mother tongue and for 66 respondents out of 86 Ukrainian is their mother tongue (one of whom identified himself as bilingual).

In this article we represent and analyze the reactions given to the questions № 6,7,11,14 of the questionnaire that aimed to build definition, synonymous sequence around concepts E-ІПОCTIP and КІБЕРІПОCTIP.

4. Results to stimulus «E-ІПОCTIP»

Among the respondents who answered in Ukrainian, 7.1% chose the interpretation of the abromorpheme e-as “*emotional*”, and 92.9% of respondents chose the definition of e-space as “*electronic space*”.

As a result of answering question № 6, a list of 348 reactions were gathered. 247 free associations in Ukrainian was compiled, 116 reactions tokens verbalizing it are repetitive, and the other 131 reactions are represented by a token only once. Reactions are presented in descending order, except for unique reactions:

Table 1

Free reactions to the stimulus E-ПРОСТІР in Ukrainian

	Reaction	Frequency		Reaction	Frequency
1.	Інтернет	14	17.	Де	3
2.	Простір	11	18.	В	3
3.	Інформація	7	19.	Чьогось	2
4.	Мережі	6	20.	Технології	2
5.	Електронний	5	21.	Онлайн	2
6.	Спілкування	4	22.	Нова	2
7.	Соціальні	4	23.	Інформаційний	2
8.	Навчання	4	24.	Який	2
9.	Можливості	4	25.	Доступ	2
10.	Комунікація	4	26.	Свобода	2
11.	Електронна	4	27.	Для	2
12.	Середовище	3	28.	Різних	2
13.	Мережа	3	29.	База	2
14.	Комп'ютер	3	30.	Даних	2
15.	Інформації	3	31.	Зручність	2
16.	Доступність	3	32.	Нова	2

Among the 30 questionnaires of respondents mediators of Ukrainian CPoW, who answered other proposed languages, 73% deciphered the abromorpheme e- as “*electronic*”: 10 respondents answered in another language (Russian and English) but indicated Ukrainian as their mother tongue, 12 respondents indicated Ukrainian as their language and deciphered e-as “*electronic*”. Respondents who gave answers in French did not choose the electronic option as a reaction to the abromoframe e-, so their answers are not included in the associative studies of E-ПРОСТІР. In total in another 101 free reactions collected, 72 of them are unique:

Table 2

Free reactions to the stimulus E-ПРОСТІР in Russian and English of Ukrainian CPoW mediators

	Reaction	Frequency
1.	Интернет	6
2.	Онлайн	4
3.	Информация	3
4.	Сеть	3
5.	Электронный	3
6.	In	2
7.	Internet	2
8.	Доступ	2
9.	Пространство	2
10.	Технологии	2

Taking into account 348 reactions received to the question № 6 in all the languages, the ten most common tokens of free reactions to the E-ПРОСТІР stimulus were singled out from the mediators of the Ukrainian CPoW:

Table 3

**Top-11 tokens of free verbalization of the concept Е-ІІРОСТІР
by Ukrainian СРoW keepers**

	Token	Frequency	Among them NOT in Ukrainian	%
1.	Інтернет	22	8	6,32
2.	Інформація	14	4	4,02
3.	Простір	13	2	3,73
4.	Електронне	11	3	3,16
5.	Мережа	10	4	2,87
6.	Соціальне	8	1	2,29
7.	Навчання	7	3	2,01
8.	Онлайн	6	4	1,72
9.	Спілкування	5	1	1,43
10.	Комунікація	4	-	1,14
11.	Доступ	4	2	1,14

The tokens in the table 3 presents the new tokens of conceptual field “space” as *Інтернет, онлайн*.

If in the previous question № 6 we collected definitions, now we clarify the core area by finding synonyms in the answers of respondents, similarly to the tokens-representatives which were embodied in lexicographic sources.

The task of the question № 7 was to establish purposeful associations in the form of token-reactions in the form of nouns and noun-constructions. A total of directed reactions were collected. 255 reactions: 122 repeated and 133 unique.

184 reactions were collected in Ukrainian, 84 of them are unique. Among the 184 reactions most commonly used for category 1 respondents were:

Table 4

Dircted noun-reactions to the stimulus Е-ІІРОСТІР in Ukrainian

	Reaction	Frequency		Reaction	Frequency
1.	Інтернет	21	14.	Доступ	2
2.	Мережа	8	15.	Місце	2
3.	Навчання	8	16.	Пошук	2
4.	Інформація	6	17.	Телефон	2
5.	Можливості	5	18.	Розвиток	2
6.	Комп'ютер	5	19.	Слово	2
7.	Комунікація	5	20.	Доступність	2
8.	Середовище	5	21.	Платформа	2
9.	Спілкування	3	22.	Зв'язок	2
10.	Швидкість	3	23.	Сайт	2
11.	Знання	3	24.	Простота	2
12.	Допомога	2	25.	Екран	2
13.	Дослідження	2	26.	Телефон	2

71 reactions were gathered in another language, 51 are unique: Respondents who gave answers in French did not choose the electronic option as a reaction to the abromoframe e-, so their answers are not included in the associative studies E-ПРОСТІР.

Table 5

**Directed noun-reactions to the stimulus E-ПРОСТІР
in Russian and English of Ukrainian CPoW mediators**

	Reaction	Frequency
1.	Интернет	5
2.	Сеть	3
3.	Скорость	3
4.	Технологии	3
5.	Знания	2
6.	Мир	2
7.	сайт	2

Considering all the received 255 reactions to the question № 7 in Ukrainian, Russian and English, the nine most common tokens of directed reactions to the E-SPACE stimulus were singled out from the mediators of the Ukrainian CPoW:

Table 6

**Top-9 directed tokens of directed verbalization of the concept E-ПРОСТІР
by Ukrainian CPoW keepers**

	Token	Frequency	Among them NOT in Ukrainian	Quality %
1.	Интернет	26	6	10,19
2.	Мережа	12	4	4,70
3.	Інформація	9	3	3,52
4.	Навчання	9	1	3,52
5.	Комунікація	7	1	2,74
6.	Комп'ютер	7	1	2,74
7.	Швидкість	6	3	2,35
8.	Середовище	6	1	2,35
9.	Можливості	5	-	1,96

A total of 603 reactions were collected, 282 of which were collectively recognized, which is 46.7% of all reactions and are presented in the form of 52 repeating tokens with different frequencies. The second part consists of 321 unique reactions, which is 53.2% of all reactions and corresponds to 263 unique tokens in three languages: Ukrainian, Russian and English.

According to the definitions presented by other respondents, there are 7 semantic microfields:

E-ПРОСТІР :: INFORMATION : *де наявна потрібна нам інформація, безліч інформації, якась вмістилище чи протяжність чогось, зміни, знання, технології, Бібліотеки, статті, тести онлайн; нова система пошуку чогось, типу вікіпедія; мова, контекст, безліч формації, база корисних даних, Електронний курс, Дистанціонка, Учеба, онлайн конференції etc;*

Е-ПРОСТІР :: POSSIBILITIES : *можливості, простір для онлайн комунікації; електронна мережа, де можна виконувати ряд дій; саморозвиток, маніпуляція, соціалізація, уподобання, проведення навчально-наукових досліджень, шлях до саморозвитку, обмін інформацією, накопичення інформації, середовище для розвитку і навчання, місце дослідження носіїв різних мов, нові можливості, один з шляхів до саморозвитку, навчання, зв'язок, мобільність, швидкість, виклики, доступ, A place in the internet for sharing educational info, Пространство для общения, Свободное место для размышлений, etc;*

Е-ПРОСТІР :: ANALOG OVERALL ENVIRONMENT : *Космос, Вселенная, всемирная паутина, простір, евклідов простір, цифровий світ, електронний простір, параллельный мир, виртуальное общество, неземное смешанная реальность, digital environment in which we regularly function, Інтернет, Интернет, сеть интернет, мережа, онлайн, платформа, форум соцмережа, соціальна мережа, група, фальш, пошуковик, блог, сайт, електронна пошта, код, віртуальна реальність, пошукова система, спільнота, Фейсбук, гул, cloud, social networks;*

Е-ПРОСТІР :: DEVICES: *пристрій, Екран, засіб, Комп'ютер, електрон, технологія технології, телефон, ікт, ноутбук, смартфон computer;*

Е-ПРОСТІР :: SOCIAL INTERACTION : *спілкування chats, веб-сайти, браузер, соціальні мережі, величезний спільний чат, оточення; соціальна мережа, соціальне медіа, аккаунт в Інтернеті, блог, електронна платформа, соцмережі, співпраця;*

Е-ПРОСТІР :: GOOD: *незалежність, простір де комфортно, цікаво, безпечно, легкість, простота, успіх, легкодоступність;*

Е-ПРОСТІР :: LIMIT: *територія область, шир, розмах місце розташування простір середовище сфера, земля, повітря, дім, свобода, українське, молодість дорослі.*

Thus, based on free and directed associations of respondents, we get the following nominative field of the concept "E-SPACE":

Table 7

Associative field of concept Е-ПРОСТІР

	Tokens	Frequency	Quality %
10.	Інтернет	48	7,96
11.	Інформація	23	3,814
12.	Мережа	22	3,64
13.	Навчання	16	2,65
14.	Простір	14	2,32
15.	Комунікація	11	1,82
16.	Середовище	11	1,82
17.	Комп'ютер	11	1,82
18.	Можливості	10	1,65
19.	Соціальне	10	1,65
20.	Спілкування	9	1,49
21.	Онлайн	8	1,32
22.	Швидкість	7	1,16
23.	Доступ	6	0,99

The tokens are given in table 3 tokens (14) *Інтернет, інформація, мережа, навчання, простір, комунікація, середовище, комп'ютер, можливості, соціальне, спілкування,*

онлайн, швидкість, доступ we define similar to the definitions collected in lexicographic sources and relate them to the zone of CF “space”.

5. Results to stimulus КІБЕРПРОСТІР

A synonym for e-space was chosen as cyberspace by 35 respondent answering in Ukrainian out of 52, by 5 respondents answering in Russian, 3 in English while having Ukrainian as native, and by 8 respondents out of 12 respondents answered in Russian but mediators of Ukrainian CPoW.

In 201 respondents' tokens-reactions, the cyberspace is the synonym to the electronic space. They describe it in questions № 1 with 132 free reactions via the following 36 repeated tokens and 96 unique:

Table 8

Free reactions to the stimulus КІБЕРПРОСТІР in Ukrainian

	Reaction	Frequency		Reaction	Frequency
1.	Інтернет	8	11.	Спілкування	2
2.	Інформація	6	12.	Інформаційне	2
3.	Мережа	5	13.	Система	2
4.	Технології	5	14.	Ігри	2
5.	Світ	4	15.	Віртуальний	2
6.	Середовище	4	16.	Електронний	2
7.	Безпека	3	17.	Сучасність	2
8.	Простір	3	18.	Дані	2
9.	Штучний	2	19.	Де	2
10.	Небезпека	2			

Ambiguous 69 reactions with a low frequency presentation were given by respondents who answered in the questionnaire in by English and Russian tokens. 15 reactions verbalized by tokens were repeated and 54 reactions are unique:

Table 9

Free reactions to the stimulus КІБЕРПРОСТІР in Russian and English of Ukrainian CPoW mediators

	Reaction	Frequency
1.	Інтернет	4
2.	Технологии	3
3.	Інформація	2
4.	Виртуальная	2
5.	Реальность	2
6.	Пространство	2

From the given reaction in Ukrainian by the Ukrainian native speakers, in Russian and English by the Ukrainians and in Russian and English by the mediators of CPoW of Ukrainian we may point out 8 high-ranked tokens that used to verbalize concept КІБЕРПРОСТІР by the representors of all the studied 3 groups of Ukrainian CPoW keepers:

Table 10

**Top-8 tokens of free verbalization of the concept КІБЕРПРОСТІР
by Ukrainian CPoW keepers**

	Reaction	Frequency	Among them NOT in Ukrainian	Quality %
1.	Інтернет	12	4	5.97
2.	Інформація	8	2	3,98
3.	Технології	8	3	3,98
4.	Мережа	6	1	2.98
5.	Середовище	5	1	2.48
6.	Простір	5	2	2.48
7.	Безпека	4	1	1.99

The task of the question № 14 was to establish directed associations in the form of token-reactions to КІБЕРПРОСТІР in the form of nouns and noun-constructions. A total of 151 reactions were collected. 102 reactions presented by respondents of the 1st category were, 41 reactions were unique:

Table 11

Directed noun-reactions to the stimulus КІБЕРПРОСТІР in Ukrainian

	Reaction	Frequency		Reaction	Frequency
1.	Інтернет	6	9.	Дані	4
2.	Інформація	5	10.	Майбутнє	4
3.	Мережа	5	11.	Інтелект	3
4.	Комунікація	5	12.	Пошук	3
5.	Технології	5	13.	Технологія	2
6.	Комп'ютер	5	14.	Знання	2
7.	Система	4	15.	Навчання	2
8.	Середовище	4	16.	Простір	2

Respondents- mediators of Ukrainian CPoW gave 48 directed reactions to the stimulus КІБЕРПРОСТІР: 14 reactions are repeated by the tokens presented in the table, the other 36 reactions are unique.

Table 12

**Directed noun-reactions to the stimulus КІБЕРПРОСТІР
in Russian and English of Ukrainian CPoW meadiators**

	Reaction	Frequency
1.	Інтернет	5
2.	Защита	2
3.	Информация	2
4.	Среда	2
5.	Сеть	2

It is necessary to mention that only 1 respondent intentionally did not provide verbalized reaction to the stimulus cyberspace. Among the rest of 150 directed

reactions in Ukrainian, Russian and English the top-list of tokens verbalizing the concept КІБЕРПРОСТІР includes:

Table 13

**Top 10 tokens of directed verbalization of the concept КІБЕРПРОСТІР
by Ukrainian CPoW keepers**

	Reaction	Frequency	Among them NOT in Ukrainian	Quality %
1.	Інтернет	11	5	7,28
2.	Інформація	8	3	5,29
3.	Технології	8	1	5,29
4.	Мережа	8	3	5,29
5.	Комп'ютер	6	1	3,97
6.	Середовище	6	2	3,97
7.	Комунікація	5	-	3,31
8.	Дані	5	1	3,31
9.	Майбутнє	5	1	3,31
10.	Інтелект	4	1	2,64

Based on the answers from the questionnaires of all 3 groups of respondents, on the questions № 11 and № 14 including repeated and unique tokens we distinguish the following microfields of the concept of КІБЕРПРОСТІР on the basis of their thematic compatibility: “digital”; caused by the digital nature of the second microfield “artificial world”; artificial environment “Internet” and its components; modernity ; risk and possibility.

КІБЕРПРОСТІР :: DIGITAL: *кодування, програмування, автоматизований програмований спосіб отримання інформації, кодування, іт-технології, подвійний шифр, цифровий простір, цифрова среда, цифра кібернетика, код;*

КІБЕРПРОСТІР :: ARTIFICIAL WORLD: *ілюзія, нереальний світ, інший світ, світ бажань, електронний світ, штучність, штучний інтелект, знаючі люди, прагматичність, ігри, певне «місце» в комп'ютерному середовищі, де знаходяться всі дані та програми, місце – де машини головні, роботизований простір, комп'ютерна система, техніка, інтелект, искусственный, компьютерные системы, мир, gaming, environment in which human interaction is mediated by ai, поглинаючий нереальний мир, абстракція, операционные системы, інженер робот життя. Actually, the creator of the term W. Gibson himself spoke about artificiality, “hallucinogenicity” of cyberspace in life without science fiction Neuromancer (Gibson, 1984:47) explaining that it is simply an abstract collection of graphical representations of human life in a computer;*

КІБЕРПРОСТІР :: INTERNET: *Інтернет, середовище пов'язане з новітніми технологіями та інтернетом, увесь інтернет, світова павутина, онлайн, глобальна мережа, платформи, блоги, соціальні мережі, е-пошта, віртуальний простір мережі виртуальная реальность, интернет, он-лайн, google drive, moodle and any other platform for co-working, platform, комп'ютер, виртуальная реальность, сеть интернет, технологи, скайп, сервер, гугл;*

КІБЕРПРОСТІР :: MODERNITY: *сучасність, інновації future, мультифункціональність, інтерактивність, нова історія, прогрес, новизна;*

КІБЕРПРОСТІР :: RISK: небезпека, безпека спілкування, невизначеність, інформаційна безпека, зацита, кибербезпека, осторожность, хакерство, анонимность атака;

КІБЕРПРОСТІР :: POSSIBILITIES: інформаційне середовище, інформаційний простір, обмін, доступ, підключення, отримання, спосіб, накопичення, спілкування, навчання, можливості, вдосконалення, робота, медіа, є основою для можливості існування космополітичного суспільства, глобалізація, підключення, розуміння, комунікації, дані, телекомунікації, інформація, учеба информационная среда, co-working, sharing, communication, широкіе возможности, свобода, онлайн, послуги.

Based on 352 free and directed associations to the stimulus of *КІБЕРПРОСТІР*, we fix the following nominative field of the concept «КІБЕРПРОСТІР»:

Table 14

Associative field of concept КІБЕРПРОСТІР

	Tokens	Frequency	Quality %
1.	Інтернет	24	6,81
2.	Інформація	21	5,96
3.	Технології	17	4,82
4.	Мережа	14	3,97
5.	Середовище	12	3,40
6.	Система	9	2,55
7.	Комунікація	8	2,27
8.	Комп'ютер	7	1,92
9.	Простір	7	1,92
10.	Дані	6	1,70
11.	Інтелект	6	1,70
12.	Майбутнє	5	1,42
13.	Безпека	4	1,13

6. Conclusions

As a result of the mixed free and directed associative experiment, **955** reactions were collected. According to the associations given by the three groups of CPoW keepers specific and common features of concepts Е-ПРОСТІР and КІБЕРПРОСТІР are the following:

Specific quantitative features of the nomination of the concept of Е-ПРОСТІР presented by the tokens: *навчання, простір, можливості, соціальне, онлайн, доступ*. From here we can talk about the educational and cognitive, socially useful nature of e-space. Microfields distinguished in the conceptual field of subconcept Е-ПРОСТІР are INFORMATION, POSSIBILITIES, ANALOG OVERALL ENVIRONMENT, DEVICES, SOCIAL INTERACTION, GOOD, LIMIT.

Cyberspace was distinguished by such tokens-reactions *as система, дані, інтелект, майбутнє, штучне, безпека*. Based on the semantical relativeness of the reactions collected we distinguished 5 microfields inside the concept КІБЕРПРОСТІР: DIGITAL, ARTIFICIAL WORLD, INTERNET MODERNITY, RISK, POSSIBILITIES. Thus, the key feature of the concept of КІБЕРПРОСТІР is based on its digital nature and related artificial life, robots, professionals who know how to operate such numbers, codes and around the state of information security.

As a result of elaboration of token-reactions on stimuli Е-ПРОСТІР and КІБЕРПРОСТІР, we may conclude that they are used with synonymous meaning for 59% of respondents. It is proved not only by the individual definitions and noun-associations to the concepts in open and directed questions, but also the frequency of representations of such common conceptual constants of both concepts. If we compare the data received about the associative fields of Е-ПРОСТІР and КІБЕРПРОСТІР concepts we may state that Е-ПРОСТІР and КІБЕРПРОСТІР is the *Інтернет* 7,53%, *інформація* 4.60%, *мережа* 3,76 % *середовище* 2,40%, *простір* 2,19 %, *комунікація* 1,98%, *комп'ютер* 1,88 %.

The comon feature of is POSSIBILITIES like communication, and the form of another ANALOG or ARFTTIFICAL WORLD.

Thus, the obtained tokens-representatives of the concepts Е-ПРОСТІР and КІБЕРПРОСТІР are included in CF “space”. The tokens *Інтернет, комп'ютер, швидкість, електронний, онлайн, система, дані, база, сайт, майбутнє, інтерактивний, віртуальний, цифровий*, were not previously included to CF “space” and as a result of activity of information with space now enter into the draft of the concept «ПРОСТІР», through CF «простір».

Expansion of CF “space”: as a result of obtaining data from a mixed associative experiment, the concepts Е-ПРОСТІР and КІБЕРПРОСТІР are established as subconcepts of two conceptual fields SPACE and INFORMATION which have the following conceptual constant: Е-ПРОСТІР and КІБЕРПРОСТІР: is an ELECTRONIC COMPUTER ENVIRONMENT to search INFORMATION by HIGH-SPEED COMMUNICATION via the INTERNET. Thus, their ability to expand CF “space” is confirmed, and the relation of concept Е-ПРОСТІР and КІБЕРПРОСТІР to it as subconcepts was proved by their definition as the environment.

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